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**ПСИХОЛОГИЧЕСКАЯ НАУКА
И ОБРАЗОВАНИЕ**

**PSYCHOLOGICAL SCIENCE
AND EDUCATION**

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Dear readers!

Here is the third issue of the journal Psychological Science and Education.

The section Psychology of Education includes four articles. It opens with an article Socio-psychological predictors for integration of indigenous youth of the North, Siberia and the Far East of Russia into city colleges.

The second study describes how academic motivation and disaffection with learning influence the choice of educational trajectories among ninth-graders in urban and rural areas. The authors draw attention to the fact that the existing studies of educational orientations focus primarily on analyses of such factors as family, socio-economic status, and place of residence.

The third article, describes the results of an empirical study of the relationship between the students' self-regulation and different types of academic motivation for successful performance in research projects.

In the last article, the authors present the results of the peer review of inclusive practices based on the evidence-based requirements. This approach has been developed at the Institute for Problems of Inclusive Education of the Moscow State University of Psychology and Education. The research of Russian scientists is combined with the methods described in the works of foreign authors. The first article of the section Developmental Psychology presents fragments of a study to identify age-related differences in perceptions of the future. The data obtained make it possible to say that the formation of the image of the future depends on age. The second article presents the features of the psychological well-being of preschool educators of the Russian Federation using the PERMA-Profiler questionnaire adapted for the Russian-speaking sample by O.M. Isaeva, A.Yu. Akimova, and E.N. Volkova.

We hope that the readers will find a lot of interesting materials in the new issue of the journal Psychological Science and Education.

The Editors

Socio-Psychological Predictors for Integration of Indigenous Youth of the North, Siberia and the Far East of Russia into City Colleges

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The paper presents the results of studying the resources of academic, socio-cultural and psychological adaptation of students representing indigenous peoples of the North, Siberia and the Far East to college. The sample consisted of 720 students, of which 304 people (58% girls) identify themselves as representatives of the indigenous peoples of the North and the Far East. The collection of empirical data was carried out using questionnaires (Scale of academic motivation; Questionnaire of online and offline coping; The Child and Youth Resilience Measure; Types of ethnic identity questionnaire; Scales of Psychological problems of adolescents; Methodology psychological safety of the educational environment). The adaptability of students was studied using the Scale of Socio-Cultural Adaptation; Self-assessment scales of satisfaction with various aspects of life; author's questionnaire. Regression analysis revealed invariant predictors (emotional attitude towards college, satisfaction with the educational environment of the college, adaptation to the amount of homework in the educational process) only for academic adaptation ($R^2=0,53$; $R^2=0,57$). Indicators of introjected learning motivation are also significant for predicting the success of academic adaptation of students representing the Indigenous Minorities and the Far East. The predictor of socio-cultural adaptation for the students representing the North, Siberia and the Far East nations is the level of ethno-egoism. Coping strategies and the size of the settlement predict the psychological adaptation this group students. The results obtained can contribute to the optimization of the process of socio-psychological adaptation of students-representatives the Indigenous Minorities to study in colleges.

Keywords: adaptation; academic adaptation; psychological adaptation; socio-cultural adaptation; adaptation predictors; college students; representatives of indigenous peoples of the North, Siberia and the Far East.

Funding. The reported study was funded by the financial support of the Ministry of Education of the Russian Federation within the framework of the state task on the topic “Resources for the adaptation of college students — representatives of the indigenous peoples of the North, Siberia and the Far East of the Russian Federation to the new socio-cultural environment” (project number 073-03-2022-040/6).

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Социально-психологические предикторы адаптации студентов колледжей — представителей коренных и малочисленных народов Севера, Сибири и Дальнего Востока

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Представлены результаты исследования ресурсов академической, социокультурной и психологической адаптации студентов — представителей коренных малочисленных народов Севера, Сибири и Дальнего Востока (КМНСС и ДВ) к обучению в колледже. Выборку составили 720 студентов, из которых 304 человека (58% — девушки) относят себя к КМНСС и ДВ. Для изучения ресурсов адаптации студентов были использованы опросные методы: Шкала академической мотивации; Опросник совладания с проблемами онлайн и офлайн; Опросник жизнеспособности детей и молодежи; методика «Типы этнической идентичности»; шкалы методики «Психологические проблемы подростков»; методика «Психологическая безопасность образова-

тельной среды»; авторская анкета. Адаптированность студентов изучалась при помощи Шкалы социокультурной адаптации, Шкалы самооценки удовлетворенности различными сторонами жизни, авторской анкеты. Применение регрессионного анализа (метод прямого включения) позволило выявить инвариантные для студентов — представителей КМНСС и ДВ ($R^2=0,53$) и студентов группы сравнения ($R^2=0,57$) предикторы академической адаптации к колледжу, в число которых вошли отношение к колледжу, удовлетворенность образовательной средой колледжа и легкость адаптации к объему самостоятельной работы в учебном процессе. Для прогноза успешности академической адаптации студентов КМНСС и ДВ также значимы показатели интроецированной учебной мотивации. Предиктором социокультурной адаптации для студентов — представителей КМНСС и ДВ ($R^2=0,10$) является выраженность сегрегационных тенденций, уровень этноэгоизма. Копинг-стратегии и размер населенного пункта, в котором расположено учебное заведение, выделены в качестве предикторов психологической адаптации ($R^2=0,10$) студентов этой группы. Полученные результаты могут способствовать оптимизации процесса социально-психологической адаптации студентов — представителей КМНСС и ДВ к обучению в колледжах.

Ключевые слова: адаптация; академическая адаптация; психологическая адаптация; социокультурная адаптация; предикторы адаптации; студенты колледжей; представители коренных и малочисленных народов Севера, Сибири и Дальнего Востока.

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Introduction

Student adaptation to the study at universities and vocational schools is important for all participants of the educational process, as such adaptation determines how effective students are in their learning. There is evidence [1; 2] that Russia's students from among indigenous peoples of the North, Siberia and the Far East ('indigenous students') encounter additional adaptation difficulties that stem from a number of factors. Such difficulties are related to city life and socio-cultural adaptation, problems in cross-cultural communication, high risk of alcohol

addiction, etc. [11]. This requires that psycho-pedagogical programs assisting indigenous students are designed and implemented taking into account such students' academic, psychological and socio-cultural adaptation to study at an educational institution. This also requires that indigenous students' adaptation level is measured based on prognostic parameters.

Modern research actively explores prognostic parameters of adaptation to the study at universities and vocational schools. The following parameters are identified as the main adaptation

predictors: an individual's cognitive and behavioral features [5; 9], an individual's system of relations and subjective well-being [3], personality traits (extraversion, tractability, neuroticism, communicative tolerance) [9; 13; 14; 18], and social support [14; 15; 17]. Being able to independently adjust the intensity of one's immersion into a new socio-cultural environment is identified as an important condition of psychological adaptation to university study for indigenous students — this means being able to select a subjectively acceptable level of integration in the cross-cultural interaction and the degree of cultural closeness/openness [8].

Some scholars, while admitting the interrelation between psychological and socio-cultural adaptation, argue that predictors for these two types of adaptation should be studied separately [13; 18]. The following predictors of socio-cultural adaptation are identified in existing research: proficiency in the language of schooling, cultural distance, academic support, stable social connections [13], the cultural distance between the native country and the destination country, linguistic aptitude, cultural identity, general emotional stability [19; 20], length of residence in the country of study, immigration status, and expected discrimination [20].

Most of the available research involves university students, which makes it especially relevant to study adaptation resources in indigenous students of vocational schools.

Our study aims to identify predictors of indigenous students' adaptation to vocational schools in a new socio-cultural environment.

We have reviewed the available literature on the factors and resources of social and psychological adaptation of indigenous peoples to the study in a new socio-cultural environment and developed a theoretical model which considers that the main factors

of the quality of student adaptation include their personal resources, the resources of the vocational education environment, and the resources of the social environment [10; 11]. In our model, an individual's personal resources of socio-cultural adaptation include academic motivation, coping strategies, resilience, ethnic identity and communicative competence indicators. The resources of the educational environment include its parameters — in particular, its psychological safety, the referentiality of the educational institution (the degree to which the values and standards of the institution's environment constitute a reference for the students), and the availability of social support in the educational institution. The resources of socio-cultural environment consist of a wide range of macrosystem factors, including climatic, ecological, social, economic and political factors. The theoretical analysis was followed by an empirical research in which we tested the hypothesis that the said factors determine the quality of indigenous students' adaptation.

Sample and methods

The study involved 720 students of vocational schools located in Russia's North, Siberia and Far East. Among those, 304 students (179 females, 125 males) identify themselves as belonging to the indigenous peoples of the North, Siberia and the Far East, and 416 students (195 females, 221 males) made up the control group and identify themselves as representatives of other ethnic groups.

The set of measurement methods was developed in accordance with the theoretical model [10]. The empirical data on vocational school students' personal adaptation resources were collected using a short version of the Scale of Academic Motivation (T.O. Gordeeva, O.A. Sychev, E.N. Osin), the Questionnaire of Online and Offline Coping (E.J. van

Ingen, K.B. Wright), the Child and Youth Resilience Measure (CYRM-28, adapted by A. Makhnach and A. Laktionova), the Types of Ethnic Identity Questionnaire (G.U. Soldatova, S.V. Ryzhova), separate scales from the Psychological Problems of Adolescents questionnaire (L.A. Regush, E.V. Alekseeva, A.V. Orlova, J.S. Pezhemskaya). The resources of the educational environment were measured using the Psychological Safety of Educational Environment Questionnaire (I.A. Baeva) and the authors' questionnaire which allows to measure the specifics of social support offered by an educational institution. The resources of the environment were measured using the indicators reflecting the socio-economic specifics of the city/town that houses a vocational school (population size and ethnicity breakdown; the number of vocational schools; the number of social venues such as cultural, leisure, healthcare, and sports facilities).

The actual student adaptation was measured using the Revised Sociocultural Adaptation Scale (SCAS-R, J. Wilson, C. Ward, V.H. Fetvadjev, A. Bethel, adapted by S.L. Vasilyeva, A.A. Abramova, M.G. Volkova, N.A. Dmitriyenko, and N.S. Kovalenko), the Self-Assessment Scale of Satisfaction with Various Aspects of Life (before and after the start of vocational education), and the authors' questionnaire developed to assess the degree of student adaptation to their educational institutions [11]. The obtained data on the specifics of vocational students' adaptation were analyzed using the principal component analysis based on the Cattell scree test and the Kaiser criterion. The analysis identified three adaptation criteria common for both studied groups. They include: 1) academic adaptation, which assesses the specifics of adaptation to academic activities, fellow students, and educational institution (proportion of variance 0.23); 2)

socio-cultural adaptation, which reveals the specifics of adaptation to a new socio-cultural environment (proportion of variance 0.13); and 3) psychological adaptation, which represents the emotional wellbeing of students (proportion of variance 0.13) [pending publication].

The Mann-Whitney U test was used to assess the reliability of variance in adaptation resources between indigenous students and the control group students. The predictors of effective adaptation to vocational schooling were identified with regression analysis (forward selection approach). Prior to this, all variables had been tested for potential multicollinearity. The variables with multiple correlations were excluded from the subsequent analysis.

Results and discussion

The first stage of the study describes the variables of students' personal adaptation resources to vocational schooling.

Tab. 1 showcases mean group values and standard deviation in variables related to students' personalities and significant differences in the studied groups.

The results show that indigenous students display a more pronounced eagerness to acquire new knowledge and understand educational materials, a greater degree of curiosity, commitment to improve one's academic performance, and eagerness to satisfy the need for competence. At the same time, the group's focus on education is more motivated by duty and shame that students feel because of significant others. According to [5], these feelings arise due to the frustration of the autonomy need. This combination of commitment to academic excellence and high level of dependency on external validation may create additional stress for indigenous students and cause potential difficulties in adaptation to vocational schools.

Table 1

Mean group values and standard deviation in variables related to students' personalities and significant differences in the studied groups

Variable	Indigenous students		Non-indigenous students		Mann-Whitney U criterion
	M	δ	M	δ	
Cognitive motivation	15.44	3.78	14.43	4.64	56702.0**
Achievement motivation	13.8	4.05	12.76	4.65	55691.5**
Introjected motivation	13,53	3.68	12.53	4.12	53765.5**
Ethnic nihilism	5.67	5.29	6.98	5.91	56185.0**
Positive ethnic identity	14.96	4.44	14.32	4.56	58044.5*
Diversion	1.33	1.05	1.17	1.05	58204.5*
Active online coping	1.30	1.06	1.50	1.06	57035.0**
Online planning	1.05	1.07	1.21	1.07	57035.0*
Tool-based support	0.93	1.01	1.12	1.04	57086.5*
Online emotional outbursts	0.38	0.73	0.57	0.87	56853.0**
Problems at school	3.13	0.71	3.34	0.81	54263.0**
Problems with peers	2.86	0.91	3.15	1.01	52960.5**

Note: * — $p \leq 0.05$; ** — $p \leq 0.01$.

The study revealed that indigenous students show an appropriate degree of tolerance, demonstrating positive attitudes to their own ethnicity and other ethnic groups. This can be considered an important factor for effective adaptation to a multicultural educational environment.

The study of coping strategies showed that indigenous students use diversion as a way to cope with difficult situations more often than students from the control group. Besides that, they do not tend to use online solutions as a way of coping as much. They are less likely to explore online solutions (including online communication) to find ways to improve or solve problem situations. This may indicate that indigenous students are cautious about the use of Internet as a resource for coping with difficult life problems.

Indigenous students are less concerned with situations related to vocational schooling or interpersonal interaction with peers. A possible reason is that indigenous students tend to partly retain their social circle. The study showed that 62% of

indigenous students have siblings or first cousins studying in the same vocational school — a major factor of social support making students feel more comfortable and confident in a new educational environment. At the same time, indigenous students admit to being more concerned about their vocational studies, which may reflect some adaptation difficulties related to the curriculum, school requirements, etc.

Tab. 2 displays the results of the analysis of resources related to vocational education environments for the studied groups.

Indigenous students demonstrate high results across all the variables related to the resources of vocational education environments. This indicates that vocational schools have made a positive contribution in the development of their intellectual abilities and life skills and highlights that education in vocational schools requires continuous improvement of students' capabilities. Besides, indigenous students have a more positive opinion about vocational education in general, expressing

Table 2

Mean group values and standard deviation in variables related to the resources of vocational education environments for the studied groups

Variable	Indigenous students		Non-indigenous students		Mann-Whitney U criterion
	M	δ	M	δ	
Cognitive component of one's attitude to vocational education environment	0.87	0.37	0.70	0.56	55108.0**
Emotional component of one's attitude to vocational education environment	0.71	0.50	0.56	0.81	54749.0**
Behavioral component of one's attitude to vocational education environment	0.53	0.55	0.40	0.61	56818.0**
Assessment of the vocational school contribution in the improvement of one's capabilities	4.05	0.83	3.87	0.91	56877.0*
Satisfaction with a vocational school	4.23	0.87	4.01	0.99	56182.0**
Assessment of the vocational school contribution in personal development	8.61	1.40	7.88	1.88	49880.0**
Commitment to a vocational school	2.41	0.61	2.22	0.65	53794.5**
Satisfaction with the possibilities to express one's point of view	2.45	1.03	2.29	1.08	57972.0*
Protection from being ignored by teachers	3.95	1.17	3.72	1.35	58269.0*

Note: * — $p \leq 0.05$; ** — $p \leq 0.01$.

higher satisfaction with and commitment to their vocational schools. At the same time, indigenous students feel lower satisfaction with the possibility to express their personal point of view (the study utilized a reverse satisfaction assessment scale), which may indicate some difficulties with self-disclosure. Vocational school students feel better protected against psychological abuse from teachers and peers, which demonstrates a high level of psychological safety in vocational education institutions. Indigenous students particularly highlight a more attentive and respectful attitude displayed by their teachers towards them.

The second stage of data analysis involved regression analysis using a forward selection approach to test the main hypotheses of the study. The indicators of students' adaptation — academic adaptation, socio-cultural adaptation, and psychological adaptation — were selected as the dependent variable, while the independent variables comprised

indicators revealing personal adaptation resources, educational environment resources as well as socio-economic specifics of an educational institution's location. Tab. 3 displays the results of the regression analysis conducted separately for each studied group. The values of the Fisher criterion and the adjusted rate of determination allow to conclude that the resulting model is valid.

The results indicate that the academic adaptation of indigenous students depends on the emotional attitude to the educational environment ($\beta=0.37$), low introjected motivation ($\beta=-0.12$), quick adaptation to the amount of homework ($\beta=0.11$), satisfaction with the vocational education environment ($\beta=-0.14$). It is evident that the positive attitude to vocational schools, satisfaction with social relationships within vocational schools, attentive and respectful attitude displayed by teachers, and lack of a didactic barrier are important resources of an educational environment

Table 3

Results of regression analysis

Dependable variable		Predictors	Standardized rates		Non-standardized rates			p
			b*	Std. Err. of b*	b	Std. Err. of b	t	
Academic adaptation	Indigenous students R=0.73 R2= 0.53 Adjusted R2= 0.50 F(14,29)=23.12 p<0.0000 Std.Error of estimate: 0.66	Intercept			-1.01	0.41	-2.44	0.02
		Introjected motivation	-0.12	0.06	-0.03	0.01	-2.06	0.04
		Emotional component of one's attitude to vocational education environment	0.37	0.05	0.71	0.10	6.98	0.00
		Dissatisfaction with vocational education environment	-0.14	0.05	-0.02	0.01	-3.02	0.00
		Easy adaptation to the amount of homework	0.11	0.05	0.05	0.02	2.23	0.03
	Control group R= 0.76 R2= 0.57 Adjusted R2= .56 F(10,40)=53.22 p<0.0000 Std.Error of estimate: 0.68	Intercept			-1.01	0.31	-3.29	0.00
		Academic support	0.16	0.04	0.08	0.02	3.71	0.00
		Emotional component of one's attitude to vocational education environment	0.21	0.04	0.27	0.05	5.43	0.00
		Dissatisfaction with vocational education environment	-0.28	0.04	-0.03	0.00	-7.66	0.00
		Cognitive component of one's attitude to vocational education environment	0.17	0.04	0.31	0.07	4.41	0.00
		Achievement motivation	0.12	0.04	0.03	0.01	3.26	0.00
		Easy adaptation to the amount of homework	0.10	0.03	0.07	0.02	2.88	0.00
		Number of educational institutions in the city/town that houses the vocational school	0,10	0.04	0.05	0.02	2.43	0.02
		Socio-cultural adaptation	Indigenous students R= 0.32 R2= 0.10 Adjusted R2= .09 F(3,301)=11.34 p<0.00000 Std.Er. of estimate: .92	Intercept			-0.12	0.24
Ethnic egotism	-0.25			0.06	-0.05	0.01	-4.38	0.00
Number of educational institutions in the city/town that houses the vocational school	-0.12			0.06	-0.06	0.03	-2.08	0.04
Control group R=0.26 R2=0.07 Adjusted R2=0 .07 F(3,41)=9.98 p<0.00000 p<0.00000 0.07 Adjusted R2=0 .07 F(3,41)=9.98 p<0,00000 Std. Error of estimate 0 .99	Intercept				0.16	0.20	0.78	0.44
	Positive ethnic identity		0.20	0.05	0.04	0.01	4.16	0.00
	Size of the city/town that houses the vocational school		-0.12	0.05	-0.19	0.08	-2.48	0.01
	Ethnic nihilism		-0.10	0.05	-0.02	0.01	-2.01	0.05

Dependable variable		Predictors	Standardized rates		Non-standardized rates			p
			b*	Std. Err. of b*	b	Std. Err. of b	t	
Psychological adaptation	Indigenous students R= 0.30 R2=.010 Adjusted R2=0.07 F(9.295)=3.24 p<0.00091 Std. Error of estimate: 0.94	Intercept			0.32	0.34	0.94	0.35
		Emotional outbursts	-0.21	0.06	-0.21	0.06	-3.27	0.00
		Tool-based support	0.14	0.07	0.14	0.07	2.09	0.04
		Diversion	-0.14	0.06	-0.12	0.06	-2.19	0.03
		Online emotional outbursts	0.13	0.07	0.18	0.09	2.04	0.04
		Size of the city/town that houses the vocational school	-0.21	0.10	-0.11	0.05	-2.09	0.04
	Control group R= 0.23 R2= 0.05 Adjusted R2= .004 F(7.405)=3.3573 p<0.00172 Std. Er. of estimate: 1.0034	Intercept			0.27	0.28	0.98	0.33
		Contextual resilience	0.37	0.12	0.03	0.01	3.02	0.00
		Individual resilience	-0.26	0.12	-0.04	0.02	-2.28	0.02

that positively impact emotional wellbeing of students and encourage effective academic performance. At the same time, the success of academic adaptation also depends on low dependency on external validation as a learning motivation.

The control group exhibited a greater diversity of academic adaptation predictors. In their case, academic adaptation depends on 1) the satisfaction with a vocational education environment ($\beta=-0.28$), 2) emotional ($\beta=0.21$) and cognitive ($\beta=0.17$) components of attitude to the educational environment, and 3) academic support ($\beta=0.16$). Thus, seeing vocational schools as a positive contributor to students' professional development, a possibility to get help from teachers, and a positive opinion on vocational education in general contribute to students' commitment to their vocational school and encourage effective academic performance. These findings correspond to the data from previous studies determining that self-regulation of academic activities [7] and academic self-efficacy [16] act as predictors of students' academic adaptation and performance. Furthermore, students'

academic adaptation also benefits from personal resources, such as achievement motivation ($\beta=0.12$), and the specifics of educational and social environment, e.g., quick adaptation to the amount of homework ($\beta=0.10$) and the number of other educational institutions in the same city/town that houses the vocational school ($\beta=0.10$). Academic adaptation of the control group is reflected in their commitment to academic excellence, lack of a didactic barrier, presence of other educational institutions in the same location and ability to select an educational institution and academic path. On the whole, this may indicate that consciousness in professional decision making is an important condition of academic adaptation for the control group students.

Ethnic egotism ($\beta=-0.25$) and the number of educational institutions in the city/town that houses the vocational school ($\beta=-0.12$) are key predictors of socio-cultural adaptation of indigenous students. A greater focus on one's ethnic identity against the backdrop of multiple educational institutions might hamper integration into a multicultural student community that

embraces indigenous students. This finding correlates with the studies showing that a lack of ethnocentrism and an orientation towards accepting cultural diversity are significant predictors of the fact that international students will not experience culture shock [6].

Positive ethnic identity ($\beta=0.20$), ethnic nihilism ($\beta=-0.10$), and the size of the city/town that houses the vocational school ($\beta=-0.12$) are significant predictors of psychological adaptation of the control group students. The adaptation to a new socio-cultural environment is challenged by the loss of positive ethnic identity, loss of personal ethnic identity, and a bigger size of a city/town that houses the vocational school. Importantly, an imbalanced attitude to personal or other ethnic groups against the backdrop of a diverse cultural environment and more fast-paced way of local life increase the chances of frustration and hostility towards other ethnic groups.

Indigenous students tend to use the following coping strategies as major predictors of psychological adaptation: emotional outburst ($\beta=-0.21$), emotional outburst online ($\beta=-0.13$), tool-based online support ($\beta=0.14$), diversion ($\beta=-0.14$), and the size of the city/town that houses the vocational school ($\beta=-0.21$). Students are more comfortable in small towns. Besides, the harmonization of student emotional state and their psychological comfort largely depend on their readiness to fine-tune their emotional state and resort to online communication to adopt the experiences of resolving difficulties. At the same time, emotional outbursts online or diversion of one's negative emotions through online leisure activities do not contribute to the harmonization of student emotional state. A possible reason is a lack of in-depth work with the accumulated problems and emotional discomfort.

The control group students were found to have the following key predictors of

psychological adaptation: contextual resilience ($\beta=0.37$) and individual resilience ($\beta=-0.26$). A skill in using social resources and an ability to seek support in the works of culture, religious practices, existing folk and cultural traditions promote psychological adaptation of the control group students. On the opposite, a tendency to rely upon one's individual resources impedes psychological adaptation and may deplete personal resources.

Conclusions

To conclude, vocational school students (both indigenous and non-indigenous) were found to have a range of invariant predictors of academic adaptation. They include students' emotional attitude to the vocational school, satisfaction with the vocational education environment, and easy adaptation to the amount of homework. Effective academic adaptation of indigenous students is driven by introjected motivation, while the predictors for the control group students include academic motivation, a cognitive component in one's attitude to vocational education environment, academic support and an opportunity to choose from a range of educational institutions.

Regarding other adaptation criteria, no invariant predictors have been found. The study shows that indigenous students adapt more effectively to a new social-cultural environment if they exhibit less ethnic egotism. Higher ethnic tolerance and positive ethnic identity in the control group students increases the chances of their effective socio-cultural adaptation.

Coping strategies and the size of the vocational school city/town are significant predictors of psychological adaptation for indigenous students, while non-indigenous students showed higher significance of the resilience-related variables.

The results of the study may find an application in the programs facilitating

more effective social and psychological adaptation of indigenous students to vocational schooling.

Follow-up research on adaptation resources of indigenous students from

among the peoples of the North, Siberia and the Far East may focus on the contribution of personal and macroenvironmental factors that failed to be covered in the reported study.

References

1. Alekseev V.V., Alekseeva A.E. Problemy adaptatsii i podgotovki predstavitelei korennykh malochislennykh narodov Severa k uchebe v sisteme vysshego professional'nogo obrazovaniya [The problems of aboriginal adaptation in the university education system]. *Gumanitarnye, sotsial'no-ekonomicheskie i obshchestvennyye nauki [Humanities, socio-economic and social sciences]*, 2014, no. 12, pp. 1—12. (In Russ.).
2. Bakhtina N.N., Gubarev A.N. Problema sotsial'no-psikhologicheskoi adaptatsii studentov, predstavitelei korennykh malochislennykh narodov Severa [The problem of socio-psychological adaptation of students, representatives of the indigenous peoples of the North]. *Vestnik Severo-Vostochnogo gosudarstvennogo universiteta [Bulletin of the Northeastern State University]*, 2017, no. 28, pp. 7—9. (In Russ.).
3. Bocharova E.E. O sub'ektivnom blagopoluchii lichnosti v aspekte sotsial'no-psikhologicheskoi adaptatsii [About subjective well-being of the person in aspect of social-psychological adaptation]. *Uchenye zapiski Pedagogicheskogo instituta SGU im. N.G. Chernyshevskogo. Seriya: Psikhologiya. Pedagogika [Academic Articles of Pedagogical Institute]*, 2009. Vol. 2, no. 2(6), pp. 16—21. (In Russ.).
4. Gordeeva T.O., Sychev O.A., Osin E.N. Oprosnik «Shkaly Akademicheskoi motivatsii» [Questionnaire "Scale of Academic Motivation"]. *Psikhologicheskii zhurnal [Psychological journal]*, 2014. Vol. 35, no. 4, pp. 98—109. (In Russ.).
5. Grigor'eva M.V., Shamionov R.M., Golubeva N.M. Rol' refleksii v adaptatsionnom protsesse studentov k usloviyam obucheniya v vuze [Role of Self-Reflection in the Process of Student Adaptation to University]. *Psikhologicheskaya nauka i obrazovanie = Psychological Science and Education*, 2017. Vol. 22, no. 5, pp. 23—30. DOI:10.17759/pse.2017220503 (In Russ., abstr. in Engl.).
6. Gritsenko V.V., Khukhlaev O.E., Zinurova R.I., Konstantinov V.V., Kulesh E.V., Malyshv I.V., Novikova I.A., Chernaya A.V. Mezhekul'turnaya kompetentnost' kak prediktor adaptatsii inostrannykh studentov [Intercultural Competence as a Predictor of Adaptation of Foreign Students]. *Kul'turno-istoricheskaya psikhologiya = Cultural-Historical Psychology*, 2021. Vol. 17, no. 1, pp. 103—112. DOI:10.17759/chp.2021170114
7. Danilenko O.I. Antitsipatsionnaya sostojatel'nost' v sisteme lichnostnykh prediktorov akademicheskoi uspevaemosti studentov [Anticipation Consistency in the System of Personal Predictors of Students' Academic Progress]. *Psikhologicheskije issledovanija [Psychological research]*, 2018. Vol. 11, no. 61. DOI:10.54359/ps.v11i61.257
8. Kozlova M.A., Kozlov A.I., Kornienko D.S. Inkluziya protiv stressa: vysshee obrazovanie dlya predstavitelei korennykh narodov Rossii [Inclusion Against Stress: Higher Education for Russian Indigenous Peoples]. *Vestnik Tomskogo gosudarstvennogo universiteta [Bulletin of Tomsk State University]*, 2022, no. 474, pp. 144—152. DOI:10.17223/15617793/474/16 (In Russ., abstr. in Engl.).
9. Lyu Ts. Kognitivno-povedencheskie prediktory sotsial'no-psikhologicheskoi adaptatsii studentov pervokursnikov k vuzu: na primere rossiiskikh i kitaiskikh studentov [Cognitive-Behavioral Predictors of Socio-Psychological Adaptation of First-Year Students to University: Case Study of Russian and Chinese Students. PhD (Psychology) Thesis]. Saint Petersburg, 2016. 25 p. (In Russ.).
10. Miklyayeva A.V., Pezhemskaya Ju.S., Khoroshikh V.V., Baeva I.A. Social'no-psikhologicheskaja adaptatsija studentov — predstavitelej korennykh malochislennykh narodov Severa, Sibiri i Dal'nego Vostoka k kolledzhu v novoj sociokul'turnoj srede: teoreticheskaja model' [Socio-psychological adaptation of students from indigenous minorities of the North, Siberia and the Far East to college in a new sociocultural environment: A theoretical model]. *Science for Education Today*, 2022. Vol. 12, no. 6, pp. 80—110. (In Russ.).
11. Baeva I.A. [i dr.]. Psihologo-pedagogicheskoe soprovozhdenie adaptatsii studentov — predstavitelej korennykh malochislennykh narodov Severa, Sibiri i Dal'nego Vostoka k kolledzhu v novoj sociokul'turnoj srede: metodicheskie rekomendatsii [Psychological and pedagogical support for the adaptation of students — representatives of the indigenous peoples of the North, Siberia and the Far East to college in a new sociocultural environment: guidelines]. Baeva I.A. (eds.). Saint Petersburg: Izd-vo RGPU im. A.I. Gercena, 2023. 272 p. (In Russ.).
12. Sitnikova A.A., Pimenova N.N., Fil'ko A.I. Pedagogicheskie podkhody v vysshei shkole dlya obucheniya i adaptatsii predstavitelei korennykh malochislennykh narodov severa [Pedagogical approaches in higher education for the training and adaptation of representatives of the indigenous

peoples of the north]. *Vestnik Novosibirskogo gosudarstvennogo pedagogicheskogo universiteta [Novosibirsk State Pedagogical University Bulletin]*, 2018. Vol. 8, no. 4, pp. 26—45. DOI:10.15293/2226-3365.1804.02

13. Tsai Kh. Sotsial'no-psihologicheskaya adaptatsiya inostrannykh studentov: obzor issledovaniy [Social and psychological adaptation of foreign students: a review of research]. *Sofiya: elektronnyi nauchno-prosvetitel'skii zhurnal [Sofia: electronic scientific and educational journal]*, 2022, no. 1, pp. 18—23.

14. Bashir A., Khalid R. Determinants of psychological adjustment of Pakistani international students. *Cogent Education*, 2022. Vol. 9(1). DOI:10.1080/2331186X.2022.2113214

15. Crockett L.J., Iturbide M.I., Torres Stone R.A., McGinley M., Raffaelli M., Carlo G. Acculturative stress, social support, and coping: relations to psychological adjustment among Mexican American college students. *Cultural Diversity and Ethnic Minority Psychology*, 2007, no. 13(4), pp. 347—355. DOI:10.1037/1099-9809.13.4.347

16. Quinn-Nilas C., Kennett D.J., Maki K. Predictors of University Adaptation and Grades for Direct Entry and Transfer Students. *Canadian Journal of Higher Education*, 2022. Vol. 52(1), pp. 1—17. DOI:10.47678/cjhe.vi0.189079

17. Sadoughi M., Hesampour F. Relationship between social support and loneliness and academic adjustment among university students. *International Journal of Academic Research in Psychology*, 2016. Vol. 3(1), pp. 48—55. DOI:10.6007/IJAR/v3-i2/2455

18. Searle W., Ward C. The prediction of psychological and sociocultural adjustment during cross-cultural transitions. *International Journal of Intercultural Relation*, 1990. Vol. 14(4), pp. 449—464.

19. Ward C., Kennedy A. The measurement of socio-cultural adaptation. *International Journal of Intercultural Relations*, 1999. Vol. 23(4), pp. 659—677.

20. Zlobina A., Basabe N., Paez D., Furnham A. Sociocultural adjustment of immigrants: Universal and group-specific predictors. *International Journal of Intercultural Relations*, 2006. Vol. 30(2), pp. 195—211. DOI:10.1016/j.ijintrel.2005.07.005

Литература

1. Алексеев В.В., Алексеева А.Е. Проблемы адаптации и подготовки представителей коренных малочисленных народов Севера к учебе в системе высшего профессионального образования // Гуманитарные, социально-экономические и общественные науки. 2014. № 12. С. 1—12.

2. Бахтина Н.Н., Губарев А.Н. Проблема социально-психологической адаптации студентов, представителей коренных малочисленных народов Севера // Вестник Северо-Восточного государственного университета. 2017. № 28. С. 7—9.

3. Бочарова Е.Е. О субъективном благополучии личности в аспекте социально-психологической адаптации // Ученые записки Педагогического института СГУ им. Н.Г. Чернышевского. Серия: Психология. Педагогика. 2009. Том 2. № 2(6). С. 16—21.

4. Гордеева Т.О., Сычев О.А., Осин Е.Н. Опросник «Шкалы Академической мотивации» // Психологический журнал. 2014. Том 35. № 4. С. 98—109.

5. Григорьева М.В., Шамионов Р.М., Голубева Н.М. Роль рефлексии в адаптационном процессе студентов к условиям обучения в вузе // Психологическая наука и образование. 2017. Том 22. № 5. С. 23—30. DOI:10.17759/pse.2017220503

6. Гриценко В.В., Хухлаев О.Е., Зинурова Р.И., Константинов В.В., Кулеш Е.В., Малышев И.В., Новикова И.А., Черная А.В. Межкультурная компетентность как предиктор адаптации

иностраннх студентов // Культурно-историческая психология. 2021. Том 17. № 1. С. 102—112. DOI:10.17759/chp.2021170114

7. Даниленко О.И. Антиципационная состоятельность в системе личностных предикторов академической успеваемости студентов // Психологические исследования. 2018. Том 11. № 61. DOI:10.54359/ps.v11i61.257

8. Козлова М.А., Козлов А.И., Корниенко Д.С. Инклюзия против стресса: высшее образование для представителей коренных народов России // Вестник Томского государственного университета. 2022. № 474. С. 144—152. DOI:10.17223/15617793/474/16

9. Лю Ц. Когнитивно-поведенческие предикторы социально-психологической адаптации студентов первокурсников к вузу: на примере российских и китайских студентов: Автореф. дисс. ... канд. психол. наук. СПб., 2016. 25 с.

10. Микляева А.В., Пежемская Ю.С., Хороших В.В., Баева И.А. Социально-психологическая адаптация студентов — представителей коренных малочисленных народов Севера, Сибири и Дальнего Востока к колледжу в новой социокультурной среде: теоретическая модель // Science for Education Today. 2022. Т. 12. № 6. С. 80—110.

11. Психолого-педагогическое сопровождение адаптации студентов — представителей коренных малочисленных народов Севера, Сибири и Дальнего Востока к колледжу в новой социокультурной среде: методические рекомендации / И.А. Баева, А.В. Микляева,

- Ю.С. Пежемская, В.В. Хороших, С.В. Вохмянина, Е.В. Головань, С.В. Советкина, Г.П. Бакулина / Под науч. ред. И.А. Баевой. СПб: Изд-во РГПУ им. А.И. Герцена, 2023. 272 с.
12. Ситникова А.А., Пименова Н.Н., Филько А.И. Педагогические подходы в высшей школе для обучения и адаптации представителей коренных малочисленных народов Севера // Вестник Новосибирского государственного педагогического университета. 2018. Том 8. № 4. С. 26—45. DOI:10.15293/2226-3365.1804.02
13. Цай Х. Социально-психологическая адаптация иностранных студентов: обзор исследований // София: электронный научно-просветительский журнал. 2022. № 1. С. 18—23.
14. Bashir A., Khalid R. Determinants of psychological adjustment of Pakistani international students // Cogent Education. 2022. Vol. 9(1). DOI:10.1080/2331186X.2022.2113214
15. Crockett L.J., Iturbide M.I., Torres Stone R.A., McGinley M., Raffaelli M., Carlo G. Acculturative stress, social support, and coping: relations to psychological adjustment among Mexican American college students // Cultural Diversity and Ethnic Minority Psychology. 2007. № 13(4). P. 347—355. DOI:10.1037/1099-9809.13.4.347
16. Quinn-Nilas C., Kennett D.J., Maki K. Predictors of University Adaptation and Grades for Direct Entry and Transfer Students // Canadian Journal of Higher Education. 2022. Vol. 52(1). P. 1—17. DOI:10.47678/cjhe.vi0.189079
17. Sadoughi M., Hesampour F. Relationship between social support and loneliness and academic adjustment among university students // International Journal of Academic Research in Psychology. 2016. Vol. 3(1). P. 48—55. DOI:10.6007/IJAR/v3-i2/2455
18. Searle W., Ward C. The prediction of psychological and sociocultural adjustment during cross-cultural transitions // International Journal of Intercultural Relations. 1990. Vol. 14(4). P. 449—464.
19. Ward C., Kennedy A. The measurement of socio-cultural adaptation // International Journal of Intercultural Relations. 1999. Vol. 23(4). P. 659—677.
20. Zlobina A., Basabe N., Paez D., Furnham A. Sociocultural adjustment of immigrants: Universal and group-specific predictors // International Journal of Intercultural Relations. 2006. Vol. 30(2). P. 195—211. DOI:10.1016/j.ijintrel.2005.07.005

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Academic Motivation and Disaffection with Learning as Predictors for the Choice of Educational Trajectories

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A large body of studies on the choice of educational trajectories is aimed at identifying the role of the family, socio-economic status, and place of residence. But the psychological patterns of preferences for educational trajectories have received less attention. Current study is aimed at identifying motivational predictors. The study presents an analysis of data obtained from 1914 schoolchildren studying in 9 classes, living in the urban (952 people) and rural areas (962 people) aged 14 to 16 years ($M=15,33$, $SD=0,49$), 57% — girls. As a result of the study, it was found that the orientation towards higher education is determined by both intrinsic and extrinsic motivation. Orientation to receive secondary vocational education is associated with amotivation and alienation from study. Schoolchildren living in rural areas tend to settle down and are more oriented towards education, both secondary vocational and higher.

Keywords: education trajectory choice; orientation to higher education; orientation to secondary vocational education; academic motivation; alienation from study; settled way of life.

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Учебная мотивация и отчуждение от учения как предикторы выбора образовательных траекторий

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Представлены результаты исследования роли учебной мотивации и отчуждения от учебы в выборе образовательной траектории школьниками 9-х классов, проживающими в городе и сельской местности. Авторы обращают внимание на то, что существующие исследования особенностей образовательных ориентаций в большинстве своем направлены на выявление роли семьи, социально-экономического положения, места проживания при выборе образовательных траекторий. Факторам, раскрывающим психологические закономерности формирования предпочтений образовательных траекторий, уделяется значительно меньше внимания. Представленная здесь работа была направлена на выявление психологических предикторов формирования предпочтений образовательных траекторий учащейся молодежи в возрасте от 14 до 16 лет. Показаны результаты анализа данных, полученных при исследовании 1914 школьников, обучающихся в 9-х классах, проживающих в городе (952 человека) и сельской местности (962 человека), в возрасте от 14 до 16 лет ($M=15,33$, $SD=0,49$), 57% — девушки. Установлено, что ориентацию на получение высшего образования обуславливает как внешняя, так и внутренняя мотивация. Ориентация на получение среднего профессионального образования связана с амотивацией и отчуждением от учебы. Школьники, проживающие в сельской местности, склонны к оседлости и в большей степени ориентированы на получение образования как среднего профессионального, так и высшего.

Ключевые слова: образовательные траектории; ориентация на высшее образование; ориентация на среднее профессиональное образование; учебная мотивация; отчуждение от учения; оседлость.

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Introduction

The formation of life plans is a differentiating feature of early adolescence, however, modern school children face the problem of professional self-determination and choice of educational trajectory quite early [24], and it is important to identify the factors that influence this choice.

Existing educational paths studies are mainly carried out in a sociological context, specifying the role of the family, socio-economic status, place of residence, etc. [for example, 2; 6], while the factors that reveal the psychological patterns behind the formation of educational trajectories preferences receive much less attention.

Despite the fact that a significant number of research papers are devoted to the educational motivation of school children, college and university students [for example, 9; 20; 30], data on the role of motivational characteristics in the selection of educational trajectories is almost absent. This study focuses on identifying motivational predictors of an educational trajectory choice.

Educational trajectories and factors for their choice

Various psychological and pedagogical approaches reflect the multiplicity of the definition of the term “educational trajectory” [10]. However, more often, an educational trajectory is understood as a sequence of levels, forms, types and means of learning to obtain certain knowledge and skills that are built in a certain logic over time and in accordance with individual qualities, and this sequence must be implemented to achieve personal professional goals [25].

Modern school children are provided with ample opportunities for building educational trajectories. A child can stay at school until the 11th grade, and then go to an institution of higher or secondary vocational education, or alternatively after 9th grade go to college, then continue their studies at a university or start working [4]. A teenager can also choose a place of study — a place of residence, a native or neighboring region, or even another country [15; 32]. Thus, the trajectory of education after school is determined by two factors — the preferred educational level (secondary vocational or higher education) and orientation towards educational migration or a settled way of life.

The choice of educational trajectory depends on ideological, political, socio-economic and personal factors [2]. If the first two groups of factors determine the educational system’s macro level [11], then socio-economic and personal factors are associated with a particular educational trajectory choice [18; 28].

According to the theories of maintained inequality [22], the choice of educational trajectory is largely determined by the family’s socioeconomic status and by the place of residence. Thus, school children from families with a higher socioeconomic status more often choose the trajectory “11 grades-university”. Students from less prosperous families, as well as rural schools’ graduates, mainly adhere to the trajectory “9 grades — college” [16]. At the same time, school graduates from rural areas tend to move to small and large cities, while school graduates from small and large cities — to the largest cities [4].

Despite the socio-economic factors’ leading role, it has been established that

motives are also significant in the choice of educational trajectories [16]. It is known that higher education is associated with social and material motives — school children want to get a profession that will help them to find a job which will be in demand [3; 34]. In the case of teenagers from rural areas, getting an education should help them move to the city for permanent residence, since there are more career opportunities [14]. The choice in favor of secondary vocational education is more often based on the family's limited resources [13].

The research results of the school children's educational trajectories choice peculiarities testify to some of its rationalization, as an orientation towards external factors (successful admission, further employment, etc.). It seems that the inner needs of the teenager's personality are ignored in the course of this choice. The reason for this may be the researchers' focus on socio-cultural and economic predictors [1; 7] and insufficient research of psychological factors. Since it was discovered that both the teenager and his/her parents strive for a balance between external and internal factors [5], it is important to identify the motivational factors' role in choosing educational trajectories.

The role of academic motivation and alienation from learning in the choice of educational trajectory

According to the self-determination theory by E. Deci and R. Ryan, activity motivation is divided into intrinsic motivation, extrinsic motivation, and amotivation as the absence of a desire to be purposefully involved in an activity [8]. Intrinsic motivation is quite homogeneous and is defined by the desire for knowledge, achievement and self-development. The extrinsic motivation types line up as a continuum from the least frustration of the need for autonomy to the greatest: motivation in an activity's secondary value (identified type), guilt, shame, and pride

motivation (introjected type), and external control, reward, and punishment motivation (external type). Therefore, the opposition between internal (based on interest in the learning activity itself) and external (based on the desire for rewards and incentives or based on avoiding negative consequences) academic motivation, previously present in psychology, is overcome.

A category close to amotivation is alienation from learning, which means experiencing the meaninglessness of the educational process, accompanied by feelings of boredom and dissatisfaction with studying, and leading to avoiding learning and to its conscious rejection [17]. The study, which involved a sample of students, showed that alienation is a significant predictor of emotional burnout, which in turn predicts poor academic performance and reduced subjective well-being [27].

International studies [for example, 33] demonstrate that students with educational trajectories where academic demands are not high, demonstrate greater involvement in learning under external control. Other studies show that involvement in the educational process and conscious academic efforts are closely related to admission to university [26; 31] and educational mobility [32]. Russian research on academic motivation in the context of educational trajectories is carried out mainly on separate samples of university and college students. However, it has been established that students studying along the "school-college-university" trajectory have higher intrinsic motivation and independence [14], and students who got into the university under the influence of external factors while learning, demonstrate higher amotivation levels as well as alienation, disappointment in the profession [19].

Based on the the logic of the self-determination theory and available data, it can be assumed that internal academic motivation is a significant positive predictor, while

amotivation and alienation from learning are significant negative predictors of orientation towards higher education, at the same time amotivation and alienation will be positive predictors for the preference of secondary vocational education. The intention to stay in one's region (settling down) will be associated with low indicators of both external and internal motivation.

Method

The study was conducted within the All-Russian long-term project "Growing Together". This paper presents an analysis of data obtained from 1914 school children studying in the 9th grade, aged 14 to 16 years ($M=15.33$, $SD=0.49$), 57% are female. Out of these, 962 people live in rural areas of the Republic of Sakha (Yakutia) and 952 people live in the city (Yakutsk). The study was conducted individually. The data collection procedure complies with the ethical standards of the Russian Psychological Society.

The questionnaire, focused on identifying preferred educational trajectories, included statements regarding the orientation towards obtaining a secondary vocational or higher education, as well as regarding the ideas about continuing education in a hometown (region) i.e. settling down. There were 6 statements in total, which respondents rated on a 5-point Likert scale from 1 ("Disagree") to 5 ("Agree"). Cronbach's alpha for the scale "Orientation towards secondary vocational education" is 0.78, for the scale "Orientation towards higher education" — 0.68, for the scale "Settling down" — 0.82.

The academic motivation scale (short version) [9] is aimed at identifying the following types of academic motivation: intrinsic cognitive motivation, self-development, introjected, external and amotivation. The questionnaire includes 20 questions that respondents are asked to rate on a 5-point Likert scale from 1 ("Not at all") to 5 ("Quite

appropriate"). Cronbach's alpha for the scales varies from 0.67 (for the Introjected motivation scale) to 0.90 (for the Self-development motivation scale).

The questionnaire of subjective alienation from learning [17] is focused on identifying a person's refusal to implement their own interests and achieve individual goals within educational activities. The scale consists of 16 items, which respondents rate on a 5-point Likert scale from 1 ("Strongly Disagree") to 5 ("Strongly Agree"). Cronbach's alpha in the present study is 0.92.

Research results

Psychometric indicators of the "Educational trajectories" questionnaire

To confirm the reliability of the obtained data, an analysis of the psychometric indicators of the "Educational trajectories" questionnaire was carried out. Six items of the questionnaire were used to obtain an exploratory factor structure that has good model fit indices: Bartlett's test of sphericity $\chi^2=3071$, $df(15)$, $p<.001$; coefficient of KMO test — 0.54; values of model fit indices are RMSEA = 0.023, TLI = 0.993, AIC = 54.25. The factor structure explains 69.6% of the variance (see Table 1).

The first factor included two statements regarding the desire to continue education in a hometown (home region) and the desire to work in a hometown (home region). This factor is called "Settling down". The second factor included statements regarding the prospect of obtaining a secondary vocational education and the support of parents for this prospect. This factor is called "Orientation towards secondary vocational education". The third factor contained points regarding the prospects for continuing education at a university and parental support for this decision. The factor is called "Orientation towards higher education". Further on each factor is considered as a separate scale.

Table 1

Factor structure of the “Educational trajectories” questionnaire statements

	Factors		
	1	2	3
1. After school, I want to continue my studies at a technical school or college and get a secondary vocational education		0.63	
2. After school, I want to continue my studies at a university and get a higher education			0.52
3. My parents would like me to continue my studies at a technical school or college and get a secondary vocational education		0.99	
4. My parents would like me to continue my studies at a university (institute, academy)			0.99
5. After graduating, I would like to work in my hometown or home region	0.69		
6. I would like to study at a university in my hometown or home region	0.99		
Explained variance	0.25	0.24	0.21

The predictive role of academic motivation and alienation from learning in the choice of educational trajectories

A correlation analysis with Pearson’s coefficient was run to identify the relations between variables. The place of residence (urban or rural), gender, and age were included in the analysis for control.

According to the results, “Orientation towards secondary vocational education” is positively associated with “Settling down” ($r = 0.23, p < 0.01$), “Alienation” ($r = 0.05, p < 0.05$), “External motivation” ($r = 0.05, p < 0.05$) and “Amotivation” ($r = 0.09, p < 0.001$), negatively with “Orientation towards higher education” ($r = -0.06, p < 0.01$), “Gender” ($r = -0.07, p < 0.01$), “Place of residence” ($r = -0.15, p < 0.001$). “Orientation towards higher education” is positively associated with “Gender” ($r = 0.14, p < 0.001$), all types of motivation except “Amotivation” ($r = -0.13, p < 0.001$), negatively associated with “Place of residence” ($r = -0.06, p < 0.01$) and “Alienation” ($r = -0.09, p < 0.001$). “Settling down” is negatively associated with “Gender” ($r = -0.24, p < 0.001$), “Place of residence” ($r = -0.13, p < 0.001$), “Alienation” ($r = -0.08, p < 0.001$), positively with “Intrinsic cognitive motivation” ($r = 0.22, p < 0.001$), “Self-development motivation”

($r = 0.21, p < 0.001$) and “Introjected motivation” ($r = 0.13, p < 0.001$). All findings are presented in table. 2.

A hierarchical regression analysis was performed to identify the prognostic role of academic motivation and alienation from learning in the choice of educational trajectories. The dependent variables were the “Orientation towards secondary vocational education”, “Orientation towards higher education” and “Settling down”.

The motivation and alienation indicators’ contribution was studied in different models, since “Amotivation” and “Alienation” demonstrate high correlation rates ($r = 0.64, p < 0.001$) and there is a possibility of reducing the reliability of the analysis result due to the data’s multicollinearity [17]. “Intrinsic cognitive motivation” and “Self-development motivation” indicators also showed a close relationship ($r = 0.81, p < 0.001$), in addition, their relationship with indicators of educational trajectories is similar and, according to previous studies, they form a single factor of intrinsic motivation [9]. In this regard, a generalized indicator of intrinsic motivation will be considered in the regression analysis.

“Gender” and “Place of residence” were included in the analysis for control. The “Age” indicator was not considered, since the sample is quite homogeneous based on this criterion, in addition, it did not show

Table 2

Correlation analysis results

	1	2	3	4	5	6	7	8	9	10	11
1. Gender	—										
2. Age	-0.05*	—									
3. Place of residence	0.04	0.07**	—								
4. Orientation towards secondary vocational education	-0.07**	-0.01	-0.15***	—							
5. Orientation towards higher education	0.14***	-0.03	-0.06**	-0.06**	—						
6. Settling down	-0.24***	-0.03	-0.13***	0.23***	0.04	—					
7. Alienation from learning	-0.02	0.02	0.12***	0.05*	-0.09***	-0.08***	—				
8. Intrinsic cognitive motivation	-0.04	0.01	-0.15***	0.04	0.27***	0.22***	-0.48***	—			
9. Self-developed motivation	-0.10***	0.01	-0.10***	-0.03	0.24***	0.21***	-0.40***	0.81***	—		
10. Introjected motivation	0.10***	-0.04	-0.03	0.04	0.24***	0.13***	0.08**	0.22***	0.18***	—	
11. External motivation	0.06*	-0.04	0.03	0.05*	0.11***	0.05	0.40***	-0.16***	-0.14***	0.59***	—
12. Amotivation	-0.04	-0.02	0.09***	0.09***	-0.13***	0.03	0.64***	-0.37***	-0.27***	0.12***	0.44***

Note. * p < .05, ** p < .01, *** p < .001 Gender: 1 — male, 2 — female; Place of residence: 1 — rural area, 2 — city.

significant relationships with the variables under study.

Model 1 includes “Gender” and “Place of residence” as independent variables and is identical for both the motivation indicators’ contribution analysis and as well as the alienation contribution analysis. Model 2.1 in addition to “Gender” and “Place of residence” includes alienation indicators as independent variables, while Model 2.2 — “Gender”, “Place of residence” as well as motivation indicators. The share of explained variance in the considered models is small and varies from 2 to 14%.

According to the results, in all models “Gender” and “Place of residence” make a significant negative contribution to the “Orientation towards secondary vocational

education”. A significant positive contribution is made by “Alienation” (Model 2.1) and “Amotivation” (Model 2.2).

“Gender” makes a significant positive contribution to the “Orientation towards higher education” (in all models), while “Place of residence” (Models 1 and 2.1) and “Alienation” (Model 2.1) make a negative contribution. When indicators of academic motivation were included in the model, it was found that “Place of residence” ceases to be a significant predictor (Model 2.2), “Intrinsic cognitive motivation”, “Introjected” and “External motivation” make a significant positive contribution, and “Amotivation” makes a negative one.

“Gender”, “Place of residence” (in all models), “Alienation” (Model 2.1) make a

Table 3

Correlation analysis results

	Orientation towards secondary vocational education		Orientation towards higher education		Settling down	
	Beta	t	Beta	t	Beta	t
Model 1	R2 = 0,025 F = 24,28		R2 = 0,02 F = 23,95***		R2 = 0,07 F = 74,35***	
Constant		33.76***		36.96***		31.73***
Gender	-0.06	-2.63**	0.14	6.35***	-0.23	-10.56***
Place of residence	-.14	-6.35***	-0.07	-3.00**	-0.13	-5.68***
Model 2.1	R2 = 0,03 F = 18,96***		R2 = 0,03 F = 20,36***		R2 = 0,08 F = 53,41***	
Constant		25.29***		31.77***		27.38***
Gender	-0.06	-2.56**	0.14	6.28***	-0.23	-10.66***
Place of residence	-0.15	-6.65***	-0.06	-2.56**	-0.12	-5.26***
Alienation from learning	0.06	2.85***	-0.08	-3.59***	-0.07	-3.28***
Model 2.2.	R2 = 0,04 F = 11,66***		R2 = 0,14 F = 50,28***		R2 = 0,13 F = 46,50***	
Constant		18.35***		14.96***		11.58***
Gender	-0.06	-2.52*	0.14	6.29***	-0.22	-10.27***
Place of residence	-.15	-6.61***	-0.03	-1.24	-0.10	-4.81***
Intrinsic cognitive motivation	.01	0.35	0.22	9.24***	0.21	8.41***
Self-development motivation	.03	1.01	0.12	4.30***	0.09	3.10**
Introjected motivation	.00	.001	0.11	3.65***	0.001	-0.1
External motivation	.10	3.66***	-0.11	-4.56***	0.09	3.67***

Note. * p < .05, ** p < .01, *** p < .001 Gender: 1 — male, 2 — female; Place of residence: 1 — rural area, 2 — city.

negative contribution to the “Settling down”, while “Intrinsic cognitive motivation”, “Introjected motivation” and “Amotivation” — a positive one (Model 2.2).

Discussion

Based on the results, gender is a significant predictor of the educational trajectory choice. It can be assumed that boys are more likely to be oriented towards secondary vocational education, and girls are more oriented towards higher education. A tendency to settle down is more common among boys. In general, current findings correspond to previous data [6; 21].

The place of residence's negative impact on the choice of secondary vocational or higher education suggests that teenagers from rural areas are more likely than their peers from the city to pursue both educational trajectories, which contradicts the previously identified orientation of rural school graduates mainly towards higher education [23; 6; 29].

Secondary vocational education is preferred by teenagers who are bored at school, do not find satisfaction in educational activities and, ultimately, reject them, which corresponds to the data on the intention of school children oriented to study in technical schools and colleges to start working as soon as possible [4]. Moreover, the current study results supplement the data on the forced choice of this educational trajectory [16]. It is likely that in the case when a teenager does not see value for himself/herself in gaining knowledge, does not want to be active and makes his/her own choice of an educational trajectory, this choice is made under the influence of external factors (for example, parents).

University education is selected by teenagers who are included in the learning process and have personal goals and an idea of what they are studying for. Indirectly, this is also confirmed by the fact

that the inclusion of motivational indicators in the orientation towards higher education excludes the significant role of the place of residence. In other words, if a teenager has a pronounced academic motivation — no matter intrinsic or extrinsic — admission to a university becomes a priority regardless of where they live. These results confirm the data on the significant role of motivation in the choice of educational trajectory [for example, 16] and contradict the data on the leading contribution of socioeconomic characteristics [22].

Settling down as a teenager's strives to study or stay after graduating in his/her native region is more typical for school children from rural areas, which does not correspond to the available data on trends in educational migration [15]. At the same time, the desire for a settled life increases with a high amotivation level and decreases with a high level of alienation from learning. It is probable that amotivation as a lack of interest in learning predicts the desire of a teenager to remain in familiar and comfortable conditions (in his/her home city or home region). While alienation from studies reflects the value loss of studying in a particular school, it makes a teenager hope that educational migration and continuing education in another place (city or region) will again make the process of acquiring knowledge meaningful. This is partly confirmed by the results of previous studies [32]. Interestingly, intrinsic cognitive and introjected motivation reduces the likelihood of educational migration. It can be assumed that in this case, the desire for knowledge may also be associated with the intention of their practical application in their native region to improve the quality of life there. If a teenager studies out of a sense of duty to significant people, then his/her orientation towards settled life can be explained by his unwillingness to burden his/her family with the additional costs of studying in another city. Although such interpretations of the

results are supported by data from previous studies [eg, 12; 4], they still need additional empirical verification.

Conclusion

This study focused on identifying the role of academic motivation as well as on the role of alienation from learning in the choice of educational trajectory. Despite the fact that the importance of the place of residence as a characteristic of the socio-economic status was confirmed, the leading factor in choosing an educational trajectory can also be academic motivation, if it has high level of expression. Therefore, school children with high intrinsic and extrinsic motivation, regardless of where they live, are oriented toward higher education, while those who are mainly unmotivated and/or alienated

from learning are going to get secondary vocational education.

The current study results can be used for general career guidance for students of the middle school, as well as for work with teenagers who have high educational motivation, but are confident in the insurmountability of socio-economic barriers when entering a university.

The future in studying the psychological factors of an educational trajectory choice may be to identify individual characteristics (for example, differences in life goals, satisfaction with school and teachers, general psychological well-being) of student groups oriented towards different educational trajectories. In addition, conducting interviews as well as involving parents in future studies will help overcome the limitations of the self-report method used in this study.

References

1. Abankina T.V., Krasilova A.N., Yastrebov G.A. *Образование как start dlya zhizni: zhiznennye plany sel'skikh shkol'nikov v Rossii* [Education as a start for life: life plans of rural schoolchildren in Russia]. *Voprosy obrazovaniya = Educational Studies Moscow*, 2012. Vol. 2, pp. 87—120. (In Russ.).
2. Abrosimov V.K., Lebid'ko V.V. Individual'nye obrazovatel'nye traektorii: formalizatsiya vybora, postroyeniya, upravleniya [Individual educational trajectory: formalization of choice, construction, management]. *Otkrytoe obrazovanie = Open Education*, 2009. Vol. 4, pp. 4—16. (In Russ.).
3. Boldina M.Yu. *Образовател'naya migratsiya sovremennoi rossiiskoi molodezhi (regional'nyi aspekt na primere Volgogradskoi oblasti)* [Educational migration of modern Russian youth (regional aspect on the example of the Volgograd region)]. *Sotsiologiya = Sociology*, 2021. Vol. 5, pp. 102—110. (In Russ.).
4. Boldina M.Yu. *Образовател'nye plany abiturientov rossiiskoi provintsii* [Educational Plans of Applicants of the Russian Province]. *Vysshiee obrazovanie v Rossii = Higher Education in Russia*, 2022. Vol. 3, pp. 84—95. (In Russ.).
5. Vetosheva V.I., Artemova O.D. Osobennosti motivatsii uchebnoi deyatel'nosti u podrostkov, obuchayushchikhsya v litsee i v obshcheobrazovatel'noi shkole [Motivational peculiarities of educational activity of teenage students in a lyceum and in a comprehensive school]. *Pedagogika i psikhologiya obrazovaniya = Pedagogy and Psychology of Education*, 2018. Vol. 3, pp. 151—164. (In Russ.).
6. Vyal'shina A.A., Dakirova S.T. *Faktory formirovaniya obrazovatel'nykh orientatsii vypusknikov sel'skikh shkol Saratovskoi oblasti* [Factors of forming educational attitudes of rural school leavers in the Saratov Oblast]. *Problemy razvitiya territorii = Problems of Territory's Development*, 2019. Vol. 3, no. 101, pp. 134—151. (In Russ.).
7. Gabdrakhmanov N.K., Karachurina L.B., Mkrtychyan N.V., Leshukov O.V. *Образовател'naya migratsiya molodezhi i optimizatsiya seti vuzov v raznykh po razmeru gorodakh* [Educational migration of young people and optimization of the network of universities in cities of different sizes]. *Voprosy obrazovaniya = Educational Studies Moscow*, 2022. Vol. 2, pp. 88—116. (In Russ.).
8. Gordeeva T.O. *Teoriya samodeterminatsii: nastoyashchee i budushchee. Chast' 1: Problemy razvitiya teorii* [Self-determination theory: present and future. Part 1: The problems of theory development]. *Psikhologicheskie issledovaniya = Psychological Studies*, 2010. Vol. 3, no. 12. DOI:10.54359/ps.v3i12.906 (In Russ.).
9. Gordeeva T.O., Sychev O.A., Osin E.N. *Oprosnik «Shkaly akademicheskoi motivatsii»* ["Academic motivation scales" questionnaire]. *Psikhologicheskii zhurnal = Psychological Journal*, 2014. Vol. 35, no. 4, pp. 96—107. (In Russ.).
10. Dmitrieva D.D. *Teoreticheskie aspekty formirovaniya individual'nykh obrazovatel'nykh*

- traektorii studentov-medikov [Theoretical aspects of the formation of individual educational trajectories of medical students]. *Mezhdunarodnyi zhurnal prikladnykh i fundamental'nykh issledovaniy = International Journal of Applied and Fundamental Research*, 2017. Vol. 5, no. 2, pp. 318—320. (In Russ.).
11. Duran T.V., Kostina N.B. Obrazovatel'naya politika i upravlenie kachestvom vysshego obrazovaniya: ponimanie i osobennosti otsenki [Educational policy and quality control of higher education: understanding and evaluation features]. *Voprosy upravleniya = Management Issues*, 2020. Vol. 5, no. 66, pp. 46—57. (In Russ.).
12. Karabanova O.A., Zakharova E.I., Starostina Yu.A. Lichnostnye faktory postroeniya professional'noi kar'ery v period vkhozheniya vo vzroslost' [Personal factors of building a professional career during the period of entering adulthood]. *Natsional'nyi psikhologicheskii zhurnal = National Psychological Journal*, 2020. Vol. 4, no. 40, pp. 113—124. DOI:10.11621/npj.2020.0409 (In Russ.).
13. Klyachko T.L., Avraamova E.M., Loginov D.M., Polushkina E.A. i dr. Trudoustroistvo molodezhi. Vybory v pol'zu SPO [Youth Employment. Routes to Vocational Education]. Moscow: RANEPa, 2019, pp. 1—18. (In Russ.).
14. Kuzevanova A.L., Zorkova V.A. Vyshee professional'noe obrazovanie v sovremennykh rossiiskikh usloviyakh: motivatsiya i faktory vybora vuza (na materialakh Volgogradskoi oblasti) [Higher professional education in modern Russian conditions: motivation and factors of choosing a university (based on materials of the Volgograd region)]. *Sotsiologiya = Sociology*, 2021. Vol. 5, pp. 64—73. (In Russ.).
15. Kurbatova M.V., Donova I.V., Krantzzeva E.A., Leukhova M.G. Obrazovatel'naya migratsiya v regionakh resursnogo tipa [Educational Migration in Resource-Extracting Regions]. *Mir Rossii. Sotsiologiya. Etnologiya = Universe of Russia. Sociology. Ethnology*, 2022. Vol. 1, pp. 91—112. (In Russ.).
16. Mal'tseva V.A., Shabalin A.I. Ne-obkhodnyi manevr, ili bum sprosa na srednee professional'noe obrazovanie v Rossii [The Non-Bypass Trajectory, or The Boom in Demand for TVET in Russia]. *Voprosy obrazovaniya = Educational Studies Moscow*, 2021. Vol. 2, pp. 10—42. (In Russ.).
17. Osin E.N. Otchuzhdenie ot ucheby kak prediktor vygoraniya u studentov vuzov: rol' kharakteristik obrazovatel'noi sredy [Alienation from Study as a Predictor of Burnout in University Students: the Role of the Educational Environment Characteristics]. *Psikhologicheskaya nauka i obrazovanie = Psychological Science and Education*, 2015. Vol. 20, no. 4, pp. 57—74. DOI:10.17759/pse.2015200406 (In Russ.).
18. Poskrebysheva N.N., Babkina A.Yu. Semeinye faktory razvitiya avtonomii i separatsionnykh protsessov u podrostkov [Family factors of autonomy development and separation processes in adolescence]. *Vestnik Moskovskogo Universiteta. Seriya 14. Psikhologiya = Moscow University Psychology Bulletin*, 2020. Vol. 3, pp. 120—146. DOI:10.11621/vsp.2020.03.06 (In Russ.).
19. Pulyaeva V.N., Nevryuev A.N. Vzaimosvyaz' bazovykh psikhologicheskikh potrebnosti, akademicheskoi motivatsii i otchuzhdeniya ot ucheby obuchayushchikhsya v sisteme vysshego obrazovaniya [The Relationship of Basic Psychological Needs, Academic Motivation and Alienation from Study of Students in Higher Education]. *Psikhologicheskaya nauka i obrazovanie = Psychological Science and Education*, 2020. Vol. 25, no. 2, pp. 19—32. DOI:10.17759/pse.2020250202 (In Russ.).
20. Rasskazova E.I., Soldatova G.U. Psikhologicheskie i pol'zovatel'skie prediktory otnosheniya k uchebe studentov v period distantsionnogo obucheniya v usloviyakh pandemii [Psychological and User Activity Predictors of Attitude toward Learning in Students during Digitalization of Education in Pandemic]. *Psikhologiya. Zhurnal Vysshei shkoly ekonomiki = Psychology. Journal of the Higher School of Economics*, 2022. Vol. 1, pp. 26—44. (In Russ.).
21. Rean A.A., Konovalov I.A. Proyavlenie agressivnosti podrostkov v zavisimosti ot pola i sotsial'no-ekonomicheskogo statusa sem'i [Manifestation of the aggression in adolescents depending on gender and socio-economic status of the family]. *Natsional'nyi psikhologicheskii zhurnal = National Psychological Journal*, 2019. Vol. 1, no. 33, pp. 23—33. DOI:10.11621/npj.2019.0103 (In Russ.).
22. Khavenson T.E., Chirkina T.A. Effektivno podderzhivaemoe neravenstvo. Vybory obrazovatel'noi traektorii posle 11-go klassa shkoly v Rossii [Effectively Maintained Inequality. The Choice of Postsecondary Educational Trajectory in Russia]. *Ekonomicheskaya sotsiologiya = Economic sociology*, 2018. Vol. 19, no. 5, pp. 66—89. DOI:10.17323/1726-3247-2018-5-66-89 (In Russ.).
23. Cherednichenko G.A. Vypuskniki sel'skoj shkoly: obrazovatel'nye strategii [Village School Graduates: Educational Strategies]. *Vestnik Instituta sotsiologii = Bulletin of the Institute of Sociology*, 2016. Vol. 4, no. 19, pp. 28—52. (In Russ.).
24. Shapovalova V.S., Chelysheva I.V. Professional'noe samoopredelenie shkol'nikov: teoriya, istoriya, praktika [Professional self-determination of schoolchildren: theory, history, practice]. Moscow; Berlin: Direkt-Media, 2018. (In Russ.).
25. Yablonskii V.B. Informatsionnoe obespechenie vybora obrazovatel'nykh traektorii [Information support for the choice of educational trajectories]. *Kreativnaya ekonomika = Creative Economy*, 2008, no. 12, pp. 58—61. (In Russ.).
26. Buzzai C., Sorrenti L., Tripiciano F., Orecchio S., Filippello P. School alienation and academic

- achievement: The role of learned helplessness and mastery orientation. *School Psychology*, 2021. Vol. 36, no. 1, pp. 17—23. DOI:10.1037/spq0000413
27. González-Rodríguez D., Vieira M.-J., Vidal J. Factors that influence early school leaving: a comprehensive model. *Educational Research*, 2019. Vol. 61, no. 2, pp. 214—230. DOI:10.1080/00131881.2019.1596034
28. Karimi S., Sotoodeh B. The mediating role of intrinsic motivation in the relationship between basic psychological needs satisfaction and academic engagement in agriculture students. *Teaching in Higher Education*, 2020. Vol. 25, no. 8, pp. 959—975. DOI:10.1080/13562517.2019.1623775
29. Patal E.A., Pituch K.A., Steingut R.R., Vasquez A.C., Yates N., Kennedy A.A.U. Agency and high school science students' motivation, engagement, and classroom support experiences. *Journal of Applied Developmental Psychology*, 2019. Vol. 62, pp. 77—92. DOI:10.1016/j.appdev.2019.01.004
30. Putarek V., Pavlin-Bernardić N. The role of self-efficacy for self-regulated learning, achievement goals, and engagement in academic cheating. *European Journal of Psychology of Education*, 2020. Vol. 35, no. 3, pp. 647—671. DOI:10.1007/s10212-019-00443-7
31. Schoon I., Burger K., Cook R. Making it against the odds: How individual and parental co-agency predict educational mobility. *Journal of Adolescence*, 2021, no. 89, pp. 74—83. DOI:10.1016/j.adolescence.2021.04.004
32. Trautwein U., Lüdtke O., Marsh H.W., Köller O., Baumert J. Tracking, grading, and student motivation: Using group composition and status to predict self-concept and interest in ninth-grade mathematics. *Journal of Educational Psychology*, 2006, no. 98(4), pp. 788—806. DOI:10.1037/0022-0663.98.4.7888
33. Wilkins S., Balakrishnan M.S., Huisman J. Student Choice in Higher Education: Motivations for Choosing to Study at an International Branch Campus. *Journal of Studies in International Education*, 2012, no. 16(5), pp. 413—433. DOI:10.1177/1028315311429002

Литература

1. Абанкина Т.В., Красилова А.Н., Ястребов Г.А. Образование как старт для жизни: жизненные планы сельских школьников в России // Вопросы образования. 2012. № 2. С. 87—120.
2. Абросимов В.К., Лебидько В.В. Индивидуальные образовательные траектории: формализация выбора, построения, управления // Открытое образование. 2009. № 4. С. 4—16.
3. Болдина М.Ю. Образовательная миграция современной российской молодежи (региональный аспект на примере Волгоградской области) // Социология. 2021. № 5. С. 102—110.
4. Болдина М.Ю. Образовательные планы абитуриентов российской провинции // Высшее образование в России. 2022. № 3. С. 84—95.
5. Ветошева В.И., Артемова О.Д. Особенности мотивации учебной деятельности у подростков, обучающихся в лицее и в общеобразовательной школе // Педагогика и психология образования. 2018. № 3. С. 151—164.
6. Вяльшина А.А., Дакирова С.Т. Факторы формирования образовательных ориентаций выпускников сельских школ Саратовской области // Проблемы развития территории. 2019. № 3(101). С. 134—151.
7. Габдрахманов Н.К., Карачурина Л.Б., Мкртчян Н.В., Лешуков О.В. Образовательная миграция молодежи и оптимизация сети вузов в разных по размеру городах // Вопросы образования. 2022. № 2. С. 88—116.
8. Гордеева Т.О. Теория самодетерминации: настоящее и будущее. Часть 1: Проблемы развития теории // Психологическое исследование. 2010. № 3(12). DOI:10.54359/ps.v3i12.906
9. Гордеева Т.О., Сычев О.А., Осин Е.Н. Опросник «Шкалы академической мотивации» // Психологический журнал. 2014. № 35(4). С. 96—107.
10. Дмитриева Д.Д. Теоретические аспекты формирования индивидуальных образовательных траекторий студентов-медиков // Международный журнал прикладных и фундаментальных исследований. 2017. № 5-2. С. 318—320.
11. Дуран Т.В., Костина Н.Б. Образовательная политика и управление качеством высшего образования: понимание и особенности оценки // Вопросы управления. 2020. № 5(66). С. 46—57.
12. Карabanova O.A., Захарова Е.И., Старостина Ю.А. Личностные факторы построения профессиональной карьеры в период вхождения во взрослость // Национальный психологический журнал. 2020. № 4(40). С. 113—124. DOI:10.11621/prj.2020.0409
13. Клячко Т.Л., Аврамова Е.М., Логинов Д.М., Полушкина Е.А. и др. Трудоустройство молодежи. Выбор в пользу СПО. М.: РАНХиГС, 2019. С. 1—18.
14. Кузванова А.Л., Зоркова В.А. Высшее профессиональное образование в современных российских условиях: мотивация и факторы выбора вуза (на материалах Волгоградской области) // Социология. 2021. № 5. С. 64—73.
15. Курбатова М.В., Донов И.В., Кранзеева Е.А., Леухова М.Г. Образовательная миграция в регионах ресурсного типа // Мир России. Социология. Этнология. 2022. № 1. С. 91—112.
16. Мальцева В.А., Шабалин А.И. Необходный маневр, или бум спроса на среднее профессиональное образование в России // Вопросы образования. 2021. № 2. С. 10—42.

17. Осин Е.Н. Отчуждение от учебы как предиктор выгорания у студентов вузов: роль характеристик образовательной среды // Психологическая наука и образование. 2015. № 20(4). С. 57—74. DOI:10.17759/pse.2015200406
18. Поскребышева Н.Н., Бабкина А.Ю. Семейные факторы развития автономии и сепарационных процессов у подростков // Вестник Московского Университета. Серия 14. Психология. 2020. № 3. С. 120—146. DOI:10.11621/vsp.2020.03.06
19. Пуляева В.Н., Неврюев А.Н. Взаимосвязь базовых психологических потребностей, академической мотивации и отчуждения от учебы обучающихся в системе высшего образования // Психологическая наука и образование. 2020. № 25(2). С. 19—32. DOI:10.17759/pse.2020250202
20. Рассказова Е.И., Солдатова Г.У. Психологические и пользовательские предикторы отношения к учебе студентов в период дистанционного обучения в условиях пандемии // Психология. Журнал Высшей школы экономики. 2022. № 1. С. 26—44.
21. Реан А.А., Коновалов И.А. Проявление агрессивности подростков в зависимости от пола и социально-экономического статуса семьи // Национальный психологический журнал. 2019. № 1(33). С. 23—33. DOI:10.11621/npj.2019.0103
22. Хавенсон Т.Е., Чиркина Т.А. Эффективно поддерживаемое неравенство. Выбор образовательной траектории после 11-го класса школы в России // Экономическая социология. 2018. № 19(5). С. 66—89. DOI:10.17323/1726-3247-2018-5-66-89
23. Чередниченко Г.А. Выпускники сельской школы: образовательные стратегии // Вестник Института социологии. 2016. № 4(19). С. 28—52.
24. Шаповалова В.С., Чельшева И.В. Профессиональное самоопределение школьников: теория, история, практика. М.; Берлин: Директ-Медиа, 2018.
25. Яблонский В.Б. Информационное обеспечение выбора образовательных траекторий // Креативная экономика. 2008. № 12. С. 58—61.
26. Buzzai C., Sorrenti L., Tripiciano F., Orecchio S., Filippello P. School alienation and academic achievement: The role of learned helplessness and mastery orientation // School Psychology. 2021. Vol. 36. № 1. P. 17—23. DOI:10.1037/spq0000413
27. González-Rodríguez D., Vieira M.-J., Vidal J. Factors that influence early school leaving: a comprehensive model // Educational Research. 2019. Vol. 61. № 2. P. 214—230. DOI:10.1080/00131881.2019.1596034
28. Karimi S., Sotoodeh B. The mediating role of intrinsic motivation in the relationship between basic psychological needs satisfaction and academic engagement in agriculture students // Teaching in Higher Education. 2020. Vol. 25. № 8. P. 959—975. DOI:10.1080/13562517.2019.1623775
29. Patall E.A., Pituch K.A., Steingut R.R., Vasquez A.C., Yates N., Kennedy A.A.U. Agency and high school science students' motivation, engagement, and classroom support experiences // Journal of Applied Developmental Psychology. 2019. Vol. 62. P. 77—92. DOI:10.1016/j.appdev.2019.01.004
30. Putarek V., Pavlin-Bernardić N. The role of self-efficacy for self-regulated learning, achievement goals, and engagement in academic cheating // European Journal of Psychology of Education. 2020. Vol. 35. № 3. P. 647—671. DOI:10.1007/s10212-019-00443-7
31. Schoon I., Burger K., Cook R. Making it against the odds: How individual and parental co-agency predict educational mobility // Journal of adolescence. 2021. № 89. P. 74—83. DOI:10.1016/j.adolescence.2021.04.004
32. Trautwein U., Lüdtke O., Marsh H.W., Köller O., Baumert J. Tracking, grading, and student motivation: Using group composition and status to predict self-concept and interest in ninth-grade mathematics // Journal of Educational Psychology. 2006. № 98(4). P. 788—806. DOI:10.1037/0022-0663.98.4.7888
33. Wilkins S., Balakrishnan M.S., Huisman J. Student Choice in Higher Education: Motivations for Choosing to Study at an International Branch Campus // Journal of Studies in International Education. 2012. № 16(5). P. 413—433. DOI:10.1177/1028315311429002

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Use of Evidence-Based Evaluation Criteria for Inclusive Practices in Competitive Procedures

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The work presents the results of approbation of the approach to expert evaluation of inclusive practices in educational institutions developed at the Institute for Problems of Inclusive Education of the Moscow State University of Psychology and Education based on the integration of inclusiveness criteria and evidence requirements. The assessment involved 25 federal experts on inclusive education, who evaluated 30 cases in three nominations of inclusive practices submitted to the federal stage of the competition. The assessors scored the applications by completing expert protocols, which were processed to determine the level of inclusivity of the practice (zero, initial, basic, or advanced). Then a reflective discussion was organized on the application by experts of the approach we developed to assessing inclusive practices according to the criteria of inclusiveness and evidence, the results of this discussion were subjected to thematic analysis. The study revealed that the distribution of expert assessments of inclusive practices by levels differs from uniform ($p < 0,01$), confirming the effectiveness of the criteria as an assessment tool. At the same time, the reproducibility of the results of the expert assessment turned out to be at an acceptable level (83%), taking into account the unreliability of differentiation of the zero and initial levels (sample of repeated measurements: $N=12$). The thematic analysis of expert reflection showed the usefulness of evaluation criteria as a tool not only for examination, but also for the development of expert thinking of the experts themselves, as well as the professional development of the contestants. Also, the results of the thematic analysis revealed the need for a broad discussion and further study of the key categories of inclusion (diversity, participation, acceptance, etc.) to operationalize them more accurately as inclusion criteria.

Keywords: inclusion criteria; inclusive practices; evidence-based approach; competitive procedures; peer review; expert thinking.

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Использование в конкурсных процедурах критериев оценки инклюзивных практик на основе доказательного подхода

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Работа представляет результаты апробации разработанного в Институте проблем инклюзивного образования МГППУ подхода к экспертной оценке инклюзивных практик в образовательных организациях на основе интеграции критериев инклюзивности и требований доказательности. В оценке участвовали 25 федеральных экспертов по инклюзивному образованию, которые оценивали 30 кейсов в трех номинациях инклюзивных практик, поданных на федеральный этап конкурса. Эксперты оценивали заявки в баллах, заполняя экспертные протоколы, которые обрабатывались для определения уровня инклюзивности практики (нулевого, начального, базового или продвинутого). Затем было организовано рефлексивное обсуждение применения экспертами разработанного нами подхода к оценке инклюзивных практик по критериям инклюзивности и доказательности, результаты этого обсуждения подвергли тематическому анализу. Исследование выявило, что распределение экспертных оценок инклюзивных практик по уровням отличается от равномерного ($p < 0,01$), подтверждая работоспособность критериев как инструмента оценки.

При этом воспроизводимость результатов экспертной оценки оказалась на приемлемом уровне (83%) с учетом ненадежности дифференциации нулевого и начального уровней (выборка повторных измерений: N=12). Тематический анализ экспертной рефлексии показал полезность критериев оценки как инструмента не только для экспертизы, но и развития экспертного мышления самих экспертов, а также профессионального развития конкурсантов. Результаты тематического анализа выявили необходимость широкого обсуждения и дальнейшего изучения ключевых категорий инклюзии (разнообразие, участие, принятие и др.) с целью их более точной операционализации в качестве критериев инклюзивности.

Ключевые слова: критерии инклюзии; инклюзивные практики; доказательный подход; конкурсные процедуры; экспертная оценка; экспертное мышление.

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Introduction

Since inclusive education (IE) became a requirement of Russian federal legislation (following the ratification of the UN Convention on the Rights of Persons with Disabilities in 2012), professionals are looking for new stimulus to wider implement IE in educational institutions (EO) [14]. Contests among Russian educational organizations and nominations for the best inclusive practices (IP) are beginning to have an impact on the development of inclusive education.

In this study, we used the operational definition of the Inclusive educational practices (IEP) adopted at the Institute for Problems of Inclusive Education of the Moscow State University of Psychology and Education. IEP is a set of interrelated organizational, administrative, pedagogical and social actions aimed to widely support an active participation of all parties of the educational process by providing a diversity of educational needs and the inclusion of all students in the educational process. We can also discuss the concept of the inclusive practices since this article refers

to inclusion as implemented and assessed in contestant procedures not only in public organizations, but also in recreational institutions for children, where it may not be so much about educational inclusion as about social inclusion. At a preliminary level, such a definition will practically repeat what we stated above, except that instead of inclusion in the educational process, we will be talking about involvement students as active participants in any activity relevant to the given conditions. Therefore, further in the text we mainly use the abbreviation IP.

IPs are components of the inclusive educational environment (IEE) of the organization. There are several approaches to increasing the evidence of assessment procedures in social work and education that take into account both the objective and subjective components of the achieved results, which also include assessment of the beneficiaries' satisfaction (in the case of basic education — parents and their children studying in public educational institutions). Expert assessment which requires developing more equal and detailed criteria

to help experts evaluate IP in the process of holding contests [16] occupies a significant place among assessment methods.

It should be taken into account that when we apply an evidence-based approach in the field of assessing the effectiveness of educational institutions, a number of specific problems arise. These problems have become the subject of discussion within the international community [24; 29; 30; 32; 33]. One of them is the difficulty to conduct controlled randomized studies due to the wide variety of special educational needs (SEN) of students with disabilities [24], insufficient consideration of the specifics of SEN in students with severe and multiple disabilities or severe intellectual disability [30] etc.

Discussion goes on relating to methods for determining evidence-based practices in domestic and foreign literature, such as discussion of methodology issues. One of the most important issues of discussion is the use of qualitative methods to substantiate the effectiveness of practices [7; 8; 9; 10; 26; 27; 31; 34; 35; 36; 37; 38].

The Institute for Problems of Inclusive Education has developed criteria [2; 3; 4; 5] for assessing IP in general educational institutions, that are based on a system analysis, taking into account scientific literature, integrated with the requirements of an evidence-based approach in assessing social practices [7; 8; 9; 10]. The criteria were tested and applied in the expert assessment of applications received from participants of the contest “Best Inclusive School of Russia”.

The goal of this article is to demonstrate the results of this testing, including the reflection of the experts who applied these criteria as their application seems productive and what problems arise.

The article puts forward a hypothesis, that the expert assessment will reveal differences in inclusiveness between the assessed inclusive practices used in the environmental conditions of kindergartens, schools, recreational institutions for children, etc. and that the assessment of

various experts, who used the proposed criteria, will not differ significantly. Apart from that, it has been assumed that the reflection carried out by the experts would reveal a number of proposals relating to the contest procedure and the evaluation criteria that were used by the experts.

Research methodology

The developers of the procedure for expert assessment of inclusive practices based on an evidence-based approach are the team of authors of the Institute for Problems of Inclusive Education, Moscow State University of Psychology and Education.

The development of the expert assessment procedure has been carried out in several stages.

1. The expert survey helped to identify the key principles of inclusive education [2; 4].

2. The criteria for assessing of the inclusive practices were developed according to an evidence-based approach and key principles of inclusive education [2; 3; 4].

3. The analysis of the evidence standard made it possible to identify the main parameters of inclusive educational practices, which were included in the requirements for describing the best inclusive practices within the framework of the contest “Best Inclusive School of Russia”. The description of a successful IP with an evidence-based approach involved the presentation of a practical case.

4. An expert protocol was developed as a tool for assessing IP in the form of the table that includes 6 criteria for the inclusiveness of practices (acceptance, participation, accessibility, variability, adaptability, support and individual approach) and 4 indicators of evidence (regularity, validity of data, achievement of educational results, validity of data on the educational results of the practices), grouped into three levels of practice — initial (1—3), basic (4—7), advanced (8—10).

5. 30 cases from 3 nominations came to the federal stage of the call for applications and were evaluated by 25 federal experts.

They have been examined in order to test the expert protocol

6. The data from expert protocols and a video recording of a webinar with the experts, which reflected their opinions on the assessment procedure and criteria as well as their proposals for improving the assessment procedure and tool, including the expert protocol, were considered as a result of the assessment of cases by the experts. Some experts also provided their thoughts and suggestions in written form.

7. The data obtained from the expert protocols, as well as the results of the experts' reflection, were processed. The arithmetic mean was calculated for each expert protocol based on the points assigned by the expert and the number of headings of the completed protocol. the IP level was determined Based on this average: zero, if the average was less than 1, initial — from 1 to less than 4, basic — from 4 to less than 8, advanced — from 8 to 10. Thus another category for evaluation of competitive bids was added, i.e. a zero level, since many experts not only spoke in favor of its introduction at the reflective webinar, but also used it in practice during the assessment process. Following that we have tested a statistical hypothesis about the difference in the frequencies of competitive bids falling into various categories (zero, initial, basic, and advanced levels). The results of the reflection were subjected to thematic analysis. A one-sample chi-square goodness-of-fit criterion was applied as a method of statistical processing of the distribution by category of competitive bids, which helped to verify the difference between the empirical distribution and the uniform distribution.

8. The reflective approach was used as a thematic analysis methodology, which was considered a form of systemic theoretical activity aimed at creating and understanding the social product, its actions and their laws based on G.P. Shchedrovitsky and his followers' theory [1; 19; 20; 21]. The reflective approach involved experts analyzing their first experience of working with protocols de-

veloped on the basis of criteria for evidence of inclusive practices while evaluating competitive works. Particularly valuable for us was the reflection on the understanding of the criteria and indicators developed by various experts, who are experienced teachers in the field of inclusive education, in relation to various competitive works. This way we have implemented a cycle of the experts' reflective activity: analysis and evaluation of competitive works (control); criticism (correction of criteria and evaluation protocol); proposals for regulation of the criteria. The reflective approach not only allows to organize a discussion based on complex communication, highlight expert opinions about the strengths and weaknesses of the assessment tool, but also helps design changes within the assessment tool [1; 16; 19; 20; 21].

Selection. The assessment involved 25 federal experts on inclusive education, selected according to the criteria of having at least 5 years of experience in inclusive education, a scientific degree and publications on the issues of inclusive education.

30 cases from three categories of inclusive practices ("kindergarten", "school", "health and recreational intuitions for children") submitted to the federal stage of the contest of applications and offered for expert evaluation have been carefully reviewed.

Results

Table 1 refers to the results of the expert scoring of competitive bids (inclusive practices presented in three nominations of the contest).

The presented results show that only 3 out of 12 paired expert assessments differ from each other in the level to which competitive bids are distributed. These are inclusive practices, the assessments of which are presented in the 2nd, 15th and 22nd rows of the table, which is 25 % of all cases that passed double examination. Accordingly, in 75% of cases, the experts' assessments in the distribution of cases by level coincided. Moreover, the discrepancy in line 15 may be caused by the fact that

Table 1

Expert evaluation of competitive inclusive practices

IP case number	Expert 1	Expert 2	Average	Level
1.	0	0	0	0
2.	1.17	5.21	3.19	1
3.	9.5		9.5	3
4.	2.25	2.88	2.56	1
5.	2.46		2.46	1
6.	2.0	0.5	1.25	1
7.	2.16	3.12	2.64	1
8.	1.75		1.75	1
9.	2.21	2.67	2.44	1
10.	1.79		1.79	1
11.	1.5		1.5	1
12.	1.375		1.375	1
13.	0.71		0.71	0
14.	2.62		2.62	1
15.	1.0	0.3	0.65	0
16.	1.42		1.42	1
17.	0		0	0
18.	0.83		0.83	0
19.	4.04		4.04	2
20.	0.5		0.5	0
21.	1.17		1.17	1
22.	6.83	2.75	4.79	2
23.	0.625	0.2	0.41	0
24.	2.21		2.21	1
25.	2.17		2.17	1
26.	0.125		0.125	0
27.	2.75	1.92	2.34	1
28.	5.5		5.5	2
29.	4.71	4.67	4.69	2
30.	1.42	1.125	1.27	1
N		N=12 (paired scores)		N=30 (total scores)

Note: zero level — the average expert assessment for the case is less than 1; entry level — 1—4; basic level — 4—8; advanced level — 8—10.

initially the experts were asked to divide practices into three levels, i.e. without zero, since the criterion for differentiating between zero and initial levels is unreliable. Taking this into account, from our point of view, the percentage of matches turned out to be quite good (i.e. 10 out of 12, or 83%),

which is an argument in favor of the reproducibility of expert assessments, although the small selection would not allow us to evaluate this reproducibility quantitatively. This may indicate that experts understand the assessment criteria in a similar way, and that the subjective factor has no undue

influence on the assessment results in this selection of experts.

Table 2 demonstrates the results of a frequency analysis of expert assessments by level, including the zero level we introduced post factum, since it was actually used by the experts themselves.

The data and their statistical analysis referred to in Table 2 show that the frequencies of cases assessed as meeting the zero and initial levels greatly predominate in the competitive selection — 27% and 57%, respectively. At the same time, experts classified only 17% in total as basic and advanced levels. These results clearly demonstrate that the vast majority of practices, according to experts, poorly meet the inclusiveness criteria and standards of evidence used.

Following that we have carried out a thematic analysis of the results of the experts' reflection transformed into written or initially represented in the form of the text, and identified on its basis three categories of expert opinions and proposals regarding (1) the usefulness (beneficial effect) of the assessment tool, (2) changes in the procedure for interacting with contestants, and (3) changes to the assessment tool itself (criteria for inclusivity and evidence, which includes procedure and expert's protocol).

Table 3 represents expert opinions regarding the usefulness (beneficial effect) of the assessment tool used.

The results represented in the Table 3 demonstrate that experts find the tool they used in order to evaluate competitive practices based on the criteria of inclusivity and evidence very useful both for themselves and, potentially, for the contestants. A fairly common and important suggestion is that the assessment tool should be used during

the preparatory stage of a contest to create criteria-based recommendations to familiarize contestants with its requirements and following that bring practices into contest format as far as the requirements for inclusivity and evidence are concerned. We have also discussed the usefulness of criteria for identifying the strengths and weaknesses of practices, existing deficiencies both in their implementation and in the presentation of results achieved on their basis, the requirement to recognize the risks of the practices, etc.

Experts made proposals regarding specific changes in the requirements for the contestants:

1. Introduce a mandatory requirement to describe inclusivity as a result of the practice and means to confirm the result, including based on substantive criteria, and not just formal quantitative ones.

2. Draw up methodological recommendations for the contestants and/or a checklist for preparing a description of the IP for the contests, which would include recommendations on methods for justifying the effects of the IP.

3. Set contestants specific requirements for regulations on describing IP.

The experts' recommendations refer to desirable changes in the requirements for contestants. To a large extent, they come down to the two main ones. The first generally recommends the creation of more detailed regulations for describing practice, which can be presented in the form of recommendations and/or, for example, a checklist for the contestant, and the second refers to the content of these requirements, which must necessarily include a description of the inclusiveness of the practice

Table 2

Results of the expert classification of competitive inclusive practices by level

Level	Zero 0	Initial 1	Basic 2	Advanced 3
Frequency	8	17	4	1

Note: Pearson chi-square goodness-of-fit test (goodness-of-fit with uniform distribution). Result: $\chi^2_{Emp} = 19.332$, the null hypothesis is rejected at $p < 0.01$, $df = 3$ ($\chi^2_{Crit} = 11.345$).

Table 3

The effect (usefulness) of the criteria for experts and contestants, according to experts

No.	Effects	Examples of the statements
1.	The requirement to prove IP has been introduced as an assessment criterion	"We were always looking for innovation, something new, and not looking for evidence" "...We saw in this tool and in these criteria a new approach to the practice assessment"
2.	The criteria help identify the strengths and weaknesses of a practice.	"The tool makes it possible to identify the strengths and weaknesses of the description of the practice and based on this determine areas for its improvement."
3.	Criteria help identify practice risks	"Practitioners provide no description of the risks; they are unable to do it. But the risks are taken into account in the criteria, which is good."
4.	Criteria help identify resources, deficiencies, gaps in goals and objectives, gaps in goals and actions, actions and results	"This tool helps the expert... show practitioners in which direction they can move, where there is the strength, the resource, large deficits, gaps between goals and objectives, goals and actions, or actions and results"
5.	The criteria help determine involvement (of parents and other participants in the educational process)	"In many practices (cases), parents are only nominally represented, there is no real evidence of their active involvement and attitude to it (their subject position) as a parent's position"
6.	For the contestants, familiarity with the evaluation criteria contributes to the professional development of teachers designing and creating IP	"The tool is good not as much for selecting practices, as for their analysis, development and examination... how to help achieve similar growth, to further design a practice"

and, accordingly, what the contestant considers inclusion, recommended evidence-based procedures/methods, description of goals and objectives, as well as the results of practice and whether and how the task of ensuring inclusion has been solved and how it is confirmed.

Experts made proposals for changes to the criteria and assessment protocol:

1. Detail the criteria within the levels.
2. Eliminate duplication in criteria.
3. Enter a zero IP level into the assessment protocol.
4. Enter a comment column into the evaluation protocol.
5. Create a glossary of criteria for experts.
6. Expand the result of practice as an object of assessment: introduce other types of results in addition to the educational ones.
7. Clarify the characteristics of each level.

8. Clarify the wording (acceptance, participation, support, individualization etc.) and a set of criteria.

The criteria for evaluating practices themselves generated the greatest number of comments and suggestions, but there are also important proposals regarding the examination procedure and protocol. That said a number of experts proposed introducing a comment column for the expert into the protocol, as well as expanding the number of assessed levels by adding a zero level. Moreover, there is a recommendation to clarify and detail the criteria for assignment to various levels and scaling within them, in particular by adding an indicator of practice reproducibility for the advanced level, and a requirement for internal professional expertise for the basic level. Experts point out the desirability of having a dictionary (glossary) that explains the main parameters of evidence and the terminology used in the criteria. It has also been

proposed to expand the concept of result beyond the educational one (for example, social inclusion etc.) , due to the presence of different nominations (for example, holiday camps, kindergartens). Experts highlighted the presence of duplication in the criteria, which may unjustifiably inflate or underestimate the score. The key criteria for assessing inclusivity, such as participation and acceptance, received particular number of comments, while other names have also been proposed for these criteria, which, according to the expert, clarify their content and eliminate ambiguity.

The discussion about the results

The results obtained, from our point of view, need to be discussed in several inter-related aspects. The criteria become the subject of reflective discussion in the community of experts, and thereby develop expert thinking in the field of inclusion; it becomes the object of change by experts and a means of self-change in the thinking of experts. This reflection as a process of self-change in expert thinking in the field of inclusion is not something accidental: it is the result of the presence of disputes and disagreements in international practice regarding the very idea of inclusion [22; 23; 24; 25; 26; 29; 32; 33], which are not removed even by the efforts of the UN Committee on the Rights of Persons with Disabilities, which issued General Comment No. 4 on the right to inclusive education [17].

A key point of discussion was the interpretation of what the “participation” criterion means. whether it consists of the realization of the right of everyone to participate in general educational conditions through reasonable adaptation of these conditions, however with the main emphasis on the implementation of this right, or whether it is in deciding the issue of placement of students based on the balance in the implementation of this right along with other — the right to receive the highest quality education, i.e. the one that meets the needs of students with special education needs in the

least restrictive environment, without however compromising the exercise of their last right? T.O. Archakov and E.Sh. Garifulina further developed the matter of in their research paper by means of introducing into the context of this problem the issue of taking into account the opinion of the children when making important decisions affecting their interests, which is a requirement of the UN Convention on the Rights of the Child (Article 12) [6; 15]. The need to take into account the views of children when making important decisions poses many complex problems, such as finding a balance between the objective developmental needs of children and achieving an acceptable level of their subjective well-being, developing their competence in expressing their opinions and attention to their subjective preferences, building partnership with them and accepting social and cultural norms that are important to the community they enter as they grow up.

A similar duality exists regarding the concepts of individual approach and individualization, where the question has been raised about supporting the subjectivity of each student on the one hand, and about an individual approach to his training and education, where he is not the subject, but the recipient of educational influences on the other hand [13; 17].

These are just a few aspects of the complex problems associated with the implementation of expert reflection in the assessment of inclusive practices.

Conclusion

As we see, the results of testing the criteria for expert assessments of inclusiveness and evidence-based educational and social practices, expressed in the results of expert assessments and reflection on the experience of using the assessment tool and its criteria, obtained in the work, prove that the tool is productive: the assessments are reproducible and suitable for the validation of the IP expertise and for the professional development of contestants.

The hypotheses posed in the article have been confirmed. The peer review tool has demonstrated that it can be used by experts to differentiate competitive practices according to the levels of inclusivity and evidence. The reproducibility of expert assessments can be defined as acceptable, although it doesn't have quantitative characteristics of reproducibility yet. The results of expert reflection revealed a number of important issues for further development and specification of both the basic concepts underlying the assessment tool and its parameters and procedures.

First of all, the experts confirmed the importance and usefulness of the developed IP assessment criteria, not only for examination, but also, as a potential tool

for the professional development of the contestants.

In the second place, the results of reflection have shown that a number of key categories for the concept of inclusion, such as diversity, participation, acceptance retain a significant amount of uncertainty for domestic experts, and therefore for practicing specialists in general (school teachers, educators, psychologists, speech pathologists, etc.).

This means that they not only need situational clarification, for example, in the proposed examination criteria, but they also need further broad discussion and empirical verification in the scientific literature and at scientific and practical conferences that's why they have to be operationalized and reliable verification methods should be chosen.

References

1. Alekseev N.G. Printsipy i kriterii ekspertizy programm razvitiya obrazovaniya [Principles and criteria for the examination of educational development programs]. *Voprosy metodologii = Voprosy metodologii*, 1994, no. 2, pp. 59—68. (In Russ.).
2. Alekhina S.V., Mel'nik Yu.V., Samsonova E.V., Shemanov A.Yu. K voprosu otsenki inklyuzivnogo protsessa v obrazovatel'noi organizatsii: pilotazhnoe issledovanie [On the issue of assessing the inclusive process in an educational organization: a pilot study]. *Psikhologo-pedagogicheskie issledovaniya = Psychological and pedagogical research*, 2019. Vol. 11, no. 4, pp. 121—132. DOI:10.17759/psyedu.2019110410 (In Russ., abstr. in Engl.).
3. Alekhina S.V., Mel'nik Yu.V., Samsonova E.V., Shemanov A.Yu. Otsenka inklyuzivnogo protsessa kak instrument proektirovaniya inklyuzii v obrazovatel'noi organizatsii [Evaluation of the inclusive process as a tool for designing inclusion in an educational organization]. *Psikhologicheskaya nauka i obrazovanie = Psychological Science and Education*, 2021. Vol. 26, no. 5, pp. 116—126. DOI:10.17759/pse.2021260509 (In Russ., abstr. in Engl.).
4. Alekhina S.V., Mel'nik Yu.V., Samsonova E.V., Shemanov A.Yu. Ekspertnaya otsenka parametrov inklyuzivnogo protsessa v obrazovanii [Expert assessment of the parameters of the inclusive process in education]. *Klinicheskaya i spetsial'naya psikhologiya = Clinical and Special Psychology*, 2020. Vol. 9, no. 2, pp. 62—78. DOI:10.17759/cpse.2020090203 (In Russ., abstr. in Engl.).
5. Alekhina S.V., Samsonova E.V., Shemanov A. Yu. Podkhod k modelirovaniyu inklyuzivnoi sredy obrazovatel'noi organizatsii [Approach to modeling the

inclusive environment of an educational organization]. *Psikhologicheskaya nauka i obrazovanie = Psychological science and education*, 2022. Vol. 27, no. 5, pp. 69—84. DOI:10.17759/pse.2022270506 (In Russ., abstr. in Engl.).

6. Archakova T.O., Garifulina E.Sh. Uchastie detei v Rossii: teoreticheskoe osmyslenie i razvitiye praktiki [Participation of children in Russia: theoretical understanding and development of practice]. *Sotsial'nye nauki i detstvo = Social sciences and childhood*, 2020. Vol. 1, no. 1, pp. 68—87. DOI:10.17759/ssc.2020010106 (In Russ., abstr. in Engl.).

7. Busygina N.P., Gorobtsova A.V. Kachestvennaya metodologiya i dokazatel'nye praktiki v psikhologii i obrazovanii [Qualitative methodology and evidence-based practices in psychology and education]. *Psikhologicheskaya nauka i obrazovanie = Psychological science and education*, 2021. Vol. 26, no. 6, pp. 117—127. DOI:10.17759/pse.2021260609 (In Russ., abstr. in Engl.).

8. Busygina N.P., Podushkina T.G., Zevina D.A. Metodologicheskie problemy dokazatel'nogo opisaniya psikhologicheskikh i sotsial'nykh praktik [Methodological problems of evidence-based description of psychological and social practices]. *Sotsial'nye nauki i detstvo = Social sciences and childhood*, 2021. Vol. 2, no. 1, pp. 24—36. DOI:10.17759/ssc.2021020102 (In Russ., abstr. in Engl.).

9. Busygina N.P., Podushkina T.G., Stanilevskii V.V. Dokazatel'nyi podkhod v obrazovanii: kriticheskii analiz aktual'nykh diskussii [Evidence-based approach in education: a critical analysis of current discussions]. *Psikhologo-pedagogicheskie issledovaniya = Psychological and pedagogical research*, 2021. Vol. 13, no. 4, pp. 162—176. DOI:10.17759/psyedu.202113-410 (In Russ., abstr. in Engl.).

10. Busygina N.P., Podushkina T.G., Stanilevskii V.V. Dokazatel'nyi podkhod v sotsial'noi sfere: osnovnye ponyatiya i printsipy, istoriya, perspektivy [Evidence-based approach in the social sphere: basic concepts and principles, history, perspectives]. *Sotsial'nye nauki i detstvo = Social sciences and childhood*, 2020. Vol. 1, no. 1, pp. 8—26. DOI:10.17759/ssc.2020010101 (In Russ., abstr. in Engl.).
11. Gutsykova S.V. Metod ekspertnykh otsenok: teoriya i praktika [Method of expert assessments: theory and practice]. Moscow: Institut psikhologii RAN, 2011. 144 p. (In Russ.).
12. Zaretskii V.K. U istokov refleksivno-deyatel'nostnogo podkhoda: k 120-letiyu Petra Yakovlevicha Gal'perina, k 90-letiyu Nikity Glebovicha Alekseeva [At the origins of the reflexive-activity approach: to the 120th anniversary of Pyotr Yakovlevich Galperin, to the 90th anniversary of Nikita Glebovich Alekseev]. *Konsultativnaya psikhologiya i psikhoterapiya = Counseling Psychology and Psychotherapy*, 2022. Vol. 30, no. 4, pp. 11—27. DOI:10.17759/cpp.2022300402 (In Russ., abstr. in Engl.).
13. Kovaleva T.M. Oformlenie novoi professii t'yutora v rossiiskom obrazovanii [Formation of a new profession of a tutor in Russian education]. *Voprosy obrazovaniya = Educational Issues*, 2011, no. 2, pp. 163—181. (In Russ.).
14. Konventsiya OON o pravakh invalidov: prinjata rezolyutsiei 61/106 General'noi Assamblei ot 13 dekabrya 2006 g. (ratificirovana Federal'nym zakonom ot 3 maja 2012 g. № 46-FZ) [UN Convention on the Rights of Persons with Disabilities: adopted by General Assembly resolution 61/106 of December 13, 2006 (ratified by the Federal Law of May 3, 2012 No. 46-FZ)] [Elektronny resurs]. Available at: https://www.un.org/ru/documents/decl_conv/conventions/disability.shtml; <https://base.garant.ru/70170066/> (Accessed 03.03.2023). (In Russ.).
15. Konvencija OON o pravah rebenka: prinjata rezoluciej 44/25 General'noj Assamblei ot 20 nojabrja 1989 g. [UN Convention on the Rights of the Child: adopted by General Assembly resolution 44/25 of November 20, 1989] [Elektronny resurs]. Available at: https://www.un.org/ru/documents/decl_conv/conventions/childcon.shtml (Accessed 03.03.2023). (In Russ.).
16. Leon'tev D.A., Ivanchenko G.V. Kompleksnaya gumanitarnaya ekspertiza. Metodologiya i smysl [Comprehensive humanitarian expertise. Methodology and meaning]. Moscow: Smysl, 2008. 133 p. (In Russ.).
17. OON: Zamechanie obschego poryadka № 4 (2016) o prave na inkluzivnoe obrazovanie [UN: General comment No. 4 (2016) on the right to inclusive education]. Komitet OON po pravam invalidov [Elektronny resurs]. Available at: https://tbinternet.ohchr.org/_layouts/15/treatybodyexternal/Download.aspx?symbolno=CRPD/C/GC/4&Lang=en (Accessed 03.03.2023). (In Russ.).
18. Samsonova E.V., Bystrova Yu.A., Shemanov AYu., Kutepova E.N. Kompetentii t'yutora v inkluzivnom obrazovanii: spetsifika programm professional'noi podgotovki [Tutor competencies in inclusive education: the specifics of professional training programs]. *Psikhologo-pedagogicheskie issledovaniya = Psychological and pedagogical research*, 2022. Vol. 14, no. 2, pp. 84—99. DOI:10.17759/psyedu.2022140206 (In Russ., abstr. in Engl.).
19. Chupina V.A. Refleksivnyi metod i ego rol' v razviti professional'nogo myshleniya upravlencheskikh kadrov [Reflexive method and its role in the development of professional thinking of managerial personnel]. *Obrazovanie i nauka = Obrazovanie i nauka*, 2010, no. 11(79), pp. 12—22. (In Russ.).
20. Shchedrovitskii G.P. Problemy metodologii sistemnogo issledovaniya [Problems of system research methodology]. Moscow: Znanie, 1964. 489 p. (In Russ.).
21. Shchedrovitskii G.P. Refleksiya i ee problemy [Reflection and its problems]. *Refleksivnye protsessy i upravlenie = Reflexive processes and management*, 2001. Vol. 1, no. 1, pp. 16—28. (In Russ.).
22. Anastasiou D., Felder M., De Miranda Correia L.A., Shemanov A., Zweers I., Ahrbeck B. Chapter 11. The impact of article 24 of the CRPD on special and inclusive education in Germany, Portugal, the Russian Federation, and the Netherlands. *On Educational Inclusion: Meanings, History, Issues, and International Perspectives*. J.M. Kauffman (ed.). Vol. I. Connecting Research with Practice in Special and Inclusive Education. Series edited by Philip Garner. Routledge, London, New York, 2020, pp. 216—248.
23. Annamma S.A., Ferri B.A., Connor D.J. Disability critical race theory: Exploring the intersectional lineage, emergence, and potential futures of DisCrit in education. *Review of Research in Education*, 2018. Vol. 42, no. 1, pp. 46—71.
24. Boyle C., Koutsouris G., Mateu A.S., Anderson J. The matter of 'evidence' in the inclusive education debate. *Oxford Research Encyclopedia of Education*. Oxford University Press. USA, 2020. DOI:10.1093/acrefore/9780190264093.013.1019
25. Connor D.J., Ferri B.A. The conflict within: resistance to inclusion and other paradoxes in special education. *Disability and Society*, 2007. Vol. 22, no. 1, pp. 63—77. DOI:10.1080/09687590601056717
26. De Weger E., Vooren N.J.E. van, Wong G., Dalkin S., Marchal B., Drewes H.W., Baan C.A. What's in a Realist Configuration? Deciding Which Causal Configurations to Use, How, and Why. *International Journal of Qualitative Methods*, 2020. Vol. 19, pp. 1—8. DOI:10.1177/1609406920938577
27. Francis-Auton E., Sarkies M.N., Pomare C., Long J.C., Hardwick R., Nguyen H.M., Braithwaite J. Real Talk: A Realist Dialogic Approach in a Realist Evaluation. *International Journal of Qualitative Method*, 2022. Vol. 21. DOI:10.1177/16094069221120748
28. Gordon-Gould P., Hornby G. The progress of inclusion and the elephant in the classroom.

Inclusive Education at the Crossroads: Exploring Effective Special Needs Provision in Global Contexts. P. Gordon-Gould, G. Hornby (eds.). Routledge, London & New York: Taylor & Francis Group, 2023, pp. 1—9. DOI:10.4324/9781003262701-1

29. Hornby G. Are Inclusive Education or Special Education Programs More Likely to Result in Inclusion Post-School? *Educ. Sci.*, 2021. Vol. 11, p. 304. DOI:10.3390/educsci11060304

30. Imray P., Kossyvakli L., Sissons M. Evidence-based practice: the use and abuse of research. *Support for Learning*, 2023. Vol. 38, no. 1, pp. 51—66. DOI:10.1111/1467-9604.12438

31. Jess K., Petersen A.C. From “What Works” to “Why it Works” — From a Humean to an Aristotelian Understanding of Causality. *Research on Social Work Practice*, 2023, pp. 1—9. DOI:10.1177/10497315231154493

32. Kauffman J.M., Badar J. Definitions and other issues. *On Educational Inclusion: Meanings, History, Issues, and International Perspectives.* J.M. Kauffman (ed.). Vol. 1. Connecting Research with Practice in Special and Inclusive Education. Series edited by Philip Garner. Routledge, London, New York, 2020, pp. 1—24.

33. Kauffman J.M., Burke M.D., Anastasiou D. Hard LRE Choices in the Era of Inclusion: Rights and Their

Implications. *Journal of Disability Policy Studies*, 2022, pp. 1—12. DOI:10.1177/10442073221113074

34. McDuffie K.A., Scruggs T.E. The Contributions of Qualitative Research to Discussions of Evidence-Based Practice in Special Education. *Interventions in School and Clinic*, 2008. Vol. 44, no. 2, pp. 91—97. DOI:10.1177/1053451208321564

35. Mukumbang F.C., Marchal B., Belle S. van, Wyk B. van. Using the realist interview approach to maintain theoretical awareness in realist studies. *Qualitative Research*, 2020. Vol. 20, no. 4, pp. 485—515. DOI:10.1177/1468794119881985

36. Rutten R. Applying and Assessing Large-N QCA: Causality and Robustness from a Critical Realist Perspective. *Sociological Methods & Research*, 2022. Vol. 51, no. 3, pp. 1211—1243. DOI:10.1177/0049124120914955

37. Tellings A. Evidence-Based Practice in the social sciences? A scale of causality, interventions, and possibilities for scientific proof. *Theory & Psychology*, 2017. Vol. 27, no. 5, pp. 581—599. DOI:10.1177/0959354317726876

38. Watharow A., Wayland S. Making Qualitative Research Inclusive: Methodological Insights in Disability Research. *International Journal of Qualitative Method*, 2022. Vol. 21. DOI:10.1177/16094069221095316

Литература

1. Алексеев Н.Г. Принципы и критерии экспертизы программ развития образования // Вопросы методологии. 1994. № 2. С. 59—68.

2. Алехина С.В., Мельник Ю.В., Самсонова Е.В., Шеманов А.Ю. К вопросу оценки инклюзивного процесса в образовательной организации: пилотажное исследование // Психолого-педагогические исследования. 2019. Том 11. № 4. С. 121—132. DOI:10.17759/psyedu.2019110410

3. Алехина С.В., Мельник Ю.В., Самсонова Е.В., Шеманов А.Ю. Оценка инклюзивного процесса как инструмент проектирования инклюзии в образовательной организации // Психологическая наука и образование. 2021. Том 26. № 5. С. 116—126. DOI:10.17759/pse.2021260509

4. Алехина С.В., Мельник Ю.В., Самсонова Е.В., Шеманов А.Ю. Экспертная оценка параметров инклюзивного процесса в образовании // Клиническая и специальная психология. 2020. Том 9. № 2. С. 62—78. DOI:10.17759/crse.2020090203

5. Алехина С.В., Самсонова Е.В., Шеманов А.Ю. Подход к моделированию инклюзивной среды образовательной организации // Психологическая наука и образование. 2022. Том 27. № 5. С. 69—84. DOI:10.17759/pse.2022270506

6. Арчакова Т.О., Гарифулина Э.Ш. Участие детей в России: теоретическое осмысление и развитие практики // Социальные науки и детство.

2020. Том 1. № 1. С. 68—87. DOI:10.17759/ssc.2020010106

7. Бусыгина Н.П., Горобцова А.В. Качественная методология и доказательные практики в психологии и образовании // Психологическая наука и образование. 2021. Том 26. № 6. С. 117—127. DOI:10.17759/pse.2021260609

8. Бусыгина Н.П., Подушкина Т.Г., Зевина Д.А. Методологические проблемы доказательного описания психологических и социальных практик // Социальные науки и детство. 2021. Том 2. № 1. С. 24—36. DOI:10.17759/ssc.2021020102

9. Бусыгина Н.П., Подушкина Т.Г., Станилевский В.В. Доказательный подход в образовании: критический анализ актуальных дискуссий // Психолого-педагогические исследования. 2021. Том 13. № 4. С. 162—176. DOI:10.17759/psyedu.202113-410

10. Бусыгина Н.П., Подушкина Т.Г., Станилевский В.В. Доказательный подход в социальной сфере: основные понятия и принципы, история, перспективы // Социальные науки и детство. 2020. Том 1. № 1. С. 8—26. DOI:10.17759/ssc.2020010101

11. Гуцыкова С.В. Метод экспертных оценок: теория и практика. М.: Институт психологии РАН, 2011. 144 с.

12. Зарецкий В.К. У истоков рефлексивно-деятельностного подхода: к 120-летию Петра Яковлевича Гальперина, к 90-летию Никиты

- Глебовича Алексеева // Консультативная психология и психотерапия. 2022. Том 30. № 4. С. 11—27. DOI:10.17759/crrp.2022300402
13. Ковалева Т.М. Оформление новой профессии тьютора в российском образовании // Вопросы образования. 2011. № 2. С. 163—181.
14. Конвенция ООН о правах инвалидов: принята резолюцией 61/106 Генеральной Ассамблеи от 13 декабря 2006 г. (ратифицирована Федеральным законом от 3 мая 2012 г. № 46-ФЗ) [Электронный ресурс]. URL: https://www.un.org/ru/documents/decl_conv/conventions/disability.shtml; <https://base.garant.ru/70170066/> (дата обращения: 03.03.2023).
15. Конвенция ООН о правах ребенка: принята резолюцией 44/25 Генеральной Ассамблеи от 20 ноября 1989 г. [Электронный ресурс]. URL: https://www.un.org/ru/documents/decl_conv/conventions/childcon.shtml (дата обращения: 03.03.2023).
16. Леонтьев Д.А., Иванченко Г.В. Комплексная гуманитарная экспертиза. Методология и смысл. М.: Смысл, 2008. 133 с.
17. ООН: Замечание общего порядка № 4 (2016) о праве на инклюзивное образование / Комитет ООН по правам инвалидов [Электронный ресурс]. URL: https://tbinternet.ohchr.org/_layouts/15/treatybodyexternal/Download.aspx?symbolno=CRPD/C/GC/4&Lang=en (дата обращения: 03.03.2023).
18. Самсонова Е.В., Быстрова Ю.А., Шеманов А.Ю., Кутелова Е.Н. Компетенции тьютора в инклюзивном образовании: специфика программ профессиональной подготовки // Психолого-педагогические исследования. 2022. Том 14. № 2. С. 84—99. DOI:10.17759/psyedu.2022140206
19. Чупина В.А. Рефлексивный метод и его роль в развитии профессионального мышления управленческих кадров // Образование и наука. 2010. № 11(79). С. 12—22.
20. Щедровицкий Г.П. Проблемы методологии системного исследования. М.: Знание, 1964. 489 с.
21. Щедровицкий Г.П. Рефлексия и ее проблемы // Рефлексивные процессы и управление. 2001. Том 1. № 1. С. 16—28.
22. Anastasiou D., Felder M., De Miranda Correia L.A., Shemanov A., Zweers I., Ahrbeck B. Chapter 11. The impact of article 24 of the CRPD on special and inclusive education in Germany, Portugal, the Russian Federation, and the Netherlands // On Educational Inclusion: Meanings, History, Issues, and International Perspectives / J.M. Kauffman (ed.). Vol. I. Connecting Research with Practice in Special and Inclusive Education. Series edited by Philip Garner. Routledge, London, New York, 2020. P. 216—248.
23. Annamma S.A., Ferri B.A., Connor D.J. Disability critical race theory: Exploring the intersectional lineage, emergence, and potential futures of DisCrit in education // Review of Research in Education. 2018. Vol. 42. № 1. P. 46—71.
24. Boyle C., Koutsouris G., Mateu A.S., Anderson J. The matter of 'evidence' in the inclusive education debate // Oxford Research Encyclopedia of Education. Oxford University Press. USA, 2020. DOI:10.1093/acrefore/9780190264093.013.1019
25. Connor D.J., Ferri B.A. The conflict within: resistance to inclusion and other paradoxes in special education // Disability and Society. 2007. Vol. 22. № 1. P. 63—77. DOI:10.1080/09687590601056717
26. De Weger E., Vooren N.J.E. van, Wong G., Dalkin S., Marchal B., Drewes H.W., Baan C.A. What's in a Realist Configuration? Deciding Which Causal Configurations to Use, How, and Why // International Journal of Qualitative Methods. 2020. Vol. 19. P. 1—8. DOI:10.1177/1609406920938577
27. Francis-Auton E., Sarkies M.N., Pomare C., Long J.C., Hardwick R., Nguyen H.M., Braithwaite J. Real Talk: A Realist Dialogic Approach in a Realist Evaluation // International Journal of Qualitative Methods. 2022. Vol. 21. DOI:10.1177/16094069221120748
28. Gordon-Gould P., Hornby G. The progress of inclusion and the elephant in the classroom // Inclusive Education at the Crossroads: Exploring Effective Special Needs Provision in Global Contexts / Eds.: P. Gordon-Gould, G. Hornby. Routledge. London & New York: Taylor & Francis Group, 2023. P. 1—9. DOI:10.4324/9781003262701-1
29. Hornby G. Are Inclusive Education or Special Education Programs More Likely to Result in Inclusion Post-School? // Educ. Sci. 2021. Vol. 11. P. 304. DOI:10.3390/educsci11060304
30. Imray P., Kosyvakli L., Sissons M. Evidence-based practice: the use and abuse of research // Support for Learning. 2023. Vol. 38. Iss. 1. P. 51—66. DOI:10.1111/1467-9604.12438
31. Jess K., Petersén A.C. From "What Works" to "Why it Works" — From a Humean to an Aristotelian Understanding of Causality // Research on Social Work Practice. 2023. P. 1—9. DOI:10.1177/10497315231154493
32. Kauffman J.M., Badar J. Definitions and other issues // On Educational Inclusion: Meanings, History, Issues, and International Perspectives / J.M. Kauffman (ed.). Vol. I. Connecting Research with Practice in Special and Inclusive Education. Series edited by Philip Garner. Routledge, London, New York, 2020. P. 1—24.
33. Kauffman J.M., Burke M.D., Anastasiou D. Hard LRE Choices in the Era of Inclusion: Rights and Their Implications // Journal of Disability Policy Studies. 2022. P. 1—12. DOI:10.1177/10442073221113074
34. McDuffie K.A., Scruggs T.E. The Contributions of Qualitative Research to Discussions of Evidence-Based Practice in Special Education // Interventions in School and Clinic. 2008. Vol. 44. № 2. P. 91—97. DOI:10.1177/1053451208321564
35. Mukumbang F.C., Marchal B., Belle S. van, Wyk B. van. Using the realist

interview approach to maintain theoretical awareness in realist studies // *Qualitative Research*. 2020. Vol. 20. № 4. P. 485—515. DOI:10.1177/1468794119881985

36. *Rutten R.* Applying and Assessing Large-N QCA: Causality and Robustness from a Critical Realist Perspective // *Sociological Methods & Research*. 2022. Vol. 51. № 3. P. 1211—1243. DOI:10.1177/0049124120914955

37. *Tellings A.* Evidence-Based Practice in the social sciences? A scale of causality, interventions, and possibilities for scientific proof // *Theory & Psychology*. 2017. Vol. 27. № 5. P. 581—599. DOI:10.1177/0959354317726876

38. *Watharow A., Wayland S.* Making Qualitative Research Inclusive: Methodological Insights in Disability Research // *International Journal of Qualitative Methods*. 2022. Vol. 21. DOI:10.1177/16094069221095316

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Conscious Self-regulation and Academic Motivation as Resources for Students to Perform Research Project Work

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The article presents the results of an empirical study of the relationship between the regulatory competencies of students, different types of academic motivation and successful performance of the research project work. Diagnostics of regulatory competencies was carried out by means of Morosanova's "Self-regulation profile of learning activities questionnaire — SR-PLAQ-M"; academic motivation was assessed using Gordeeva's "Scales of academic motivation of schoolchildren". The diagnostics was carried out at the beginning of the academic year. Criteria-based assessments, set by the expert teachers, were used as indicators of the project work success. The study, performed on a sample of 9th grade students (N=187, 15—16 years old), provided evidence that regulatory competencies and motivation serve as prerequisites for the students' success in research project work. The study allowed to empirically distinguish between the universal and special regulatory competencies. The data analysis revealed the resource role of regulatory competencies in performing an individual research project. It is shown that the general level of the conscious self-regulation development characterizes the universal resources for successful performance of an individual project and is positively associated with all expert criteria for assessment research project success. Special regulatory resources are the modeling of significant conditions and evaluating the results of actions. The study also revealed a mediator role of the regulatory competence of evaluating results in the relationship between the students' academic motivation and the final assessment of the research project.

Keywords: conscious self-regulation; academic motivation; project activity; mediator analysis.

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Осознанная саморегуляция и академическая мотивация как ресурсы выполнения обучающимися проектно-исследовательской работы

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Представлены результаты эмпирического исследования взаимосвязи регуляторных компетенций обучающихся, разных видов академической мотивации и успешности выполнения проектно-исследовательской работы. Диагностика регуляторных компетенций осуществлялась с помощью опросника В.И. Моросановой «Стиль саморегуляции учебной деятельности — ССУД-М»; академическая мотивация оценивалась при помощи методики Т.О. Гордеевой «Шкалы академической мотивации школьников». Замер проводился один раз в начале учебного года. В качестве показателей успешности выполнения проекта использовались критериальные оценки, выставленные педагогами-экспертами. Исследование, выполненное на выборке обучающихся 9-х классов (N=187, 15—16 лет), позволило получить свидетельства того, что регуляторные компетенции и мотивация являются предпосылками успешности выполнения обучающимися проектно-исследовательской работы. Эмпирически были выделены универсальные и специальные регуляторные компетенции. Раскрыта ресурсная роль регуляторных компетенций в реализации индивидуального проекта. Показано, что общий уровень развития осознанной саморегуляции характеризует универсальные ресурсы выполнения индивидуального проекта и положительно связан со всеми экспертными критериями выполнения проектно-исследовательской работы. Специальными регуляторными ресурсами выступают моделирование значимых условий и оценивание результатов действий. Обнаружена медиаторная роль регуляторной компетенции оценивания результатов во взаимосвязи академической мотивации и итоговой оценки по проекту.

Ключевые слова: осознанная саморегуляция; академическая мотивация; проектная деятельность; медиаторный анализ.

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Introduction

The modern FSES OOO [1] defines the requirements for educational results, including subject, meta-subject, and personal results. Subject results are based on the assessment of students' achievements in certain subjects within the framework of final assessment. Personal results achievement is not included in the final certification but is the subject of assessment of the schools' educational activities. Evaluation of meta-subject results supposes an assessment of achieving the planned results in the formation of the actions of self-regulatory, communicative, and cognitive universal learning actions. The main procedure for their final assessment is the defense of an individual research project by the student.

A number of studies confirm the effectiveness of project activities as the main tool for the formation of meta-educational results in modern school [9; 7; 20; 21]. Foreign authors also note the effectiveness of project activities in the acquisition of subject knowledge [26], formation of learning skills [31; 33; 34], increasing motivation [23; 34], development of communicative competences [23]. It has also been shown that project-based learning has a significant positive impact on students' academic achievement compared to the traditional learning [29]. Researchers especially appreciate the high efficiency of project activities for schoolchildren in such areas as robotics, programming, informatics, and applied physics [32].

The main pedagogical purpose of the project-research activity is to master the student's research skills as a basis for the formation of universal actions of the self-regulation ensuring assimilation of reality by the student and activating his/her agen-

tive position in the educational process [11; 13]. Foreign researchers point out the following distinctive features of project activity [25]: focus on the educational objectives, co-operation with others, and creation of a product. The composition of learning tasks is determined in accordance with the cycle of project creation and implementation, which includes the following stages [10]: 1) problematization stage; 2) solution design stage; 3) action planning stage; 4) execution stage; 5) summarizing and reflection stage. The measure of success of the project work is not a single assessment made by one teacher, but a criterion assessment by several teachers, which also allows students (based on previously known criteria) to independently assess the result of their work at each stage.

The student should approach the project-research work (here we suppose an individual project in the ninth grade) with a certain set of already formed universal learning actions allowing him/her to independently pass all the stages of the project. Researchers emphasize the actions of the self-regulation as the key universal learning actions. Methodologists and developers of the general education standards (FSES) define them as such actions that ensure the organization of learning activities through goal-setting, planning, forecasting, control, correction, and evaluation. They allow students to achieve success in the project activities [2; 4; 5; 24]. At the same time, researchers report the deficit of their formation in a large percentage of modern schoolchildren [4; 23]. One can observe a situation when students with high learning motivation and a high enough level of development of the self-regulation learning actions, participating in the project activities, improve and develop their com-

petences, while students with a low level of the self-regulation learning actions, even with high intrinsic motivation to carry out a project, cannot always fully engage in the project activities. Their projects often have a formal nature and are limited to simple abstracting of literature sources.

Within the framework of pedagogical approach, some researchers suggest overcoming these difficulties by means of special aids helping the students to structure their work on the project [6], others pay attention to the teachers training and emphasize the need to create special conditions for the gradual assimilation of the project content by students [2; 27]. They also create the school models of self-regulation development in the project activity, which include all participants of the educational process [5]. In addition, there is an author's approach, in which the research project itself acts as not just a set of methods and techniques of learning, but is a student's way to contact the surrounding world [20]. In this sense, quite obvious is the relevance of studying not only successful pedagogical practices and pedagogical aspects of this problem, but also disclosing the psychological component of the formation of the universal learning actions in the project activities.

Our empirical study is based on the provisions of the resource approach to the study of conscious self-regulation of a person [12], verified in the long-term studies of the Self-regulation Laboratory of the Psychological Institute of the Russian Academy of Education. According to this approach, conscious self-regulation is a reflexive psychological tool, which includes a system of the operational-cognitive (planning, modelling, programming, results evaluation) and personal (flexibility, autonomy, responsibility, reliability) levels of the self-regulation. These subsystems, in turn, mobilize primary psychic processes and states (cognitive,

personal, emotional), which act as means of implementing the student's self-regulation to achieve educational goals. It has been shown that conscious self-regulation not only contributes directly to academic performance, but also mediates the influence of cognitive and personal predictors on academic achievement [17; 30]. It has been theoretically and empirically substantiated that development of conscious self-regulation determines both the universal resource of a person for achieving goals in different types of activities and the possibilities of creating special resources of the self-regulation as means of solving more specific tasks [12]. Special and universal resources of students ensuring their success in achieving learning goals have been studied and described.

As a result of empirical studies, it was substantiated: the higher the level of the self-regulation competences development is, the wider are educational opportunities of the students [12]. The studies also scrutinized and described the age specificity of the relationship between self-regulation and academic motivation in different periods of education. It is shown that a high level of self-regulation development in high school students can perform a compensating function in the situation of decreasing academic motivation [14].

We assumed that students' self-regulation competences are a meta-resource contributing to the achievement of meta-subject self-regulation educational outcomes at all stages of the research project activities. At the same time, self-regulation can be a significant resource mediating the influence of students' academic motivation on the project implementation success.

Objective. The study had its purpose to reveal the resource role of the self-regulation competences and learning motivation in the implementation of individual project by students and to identify univer-

sal and special resources of its successful realization.

Research tasks:

— to reveal the specificity of the relationship between the degree of formation of students' self-regulation competences (the general level of conscious self-regulation and its individual characteristics), different types of learning motivation, and the peculiarities of research project implementation;

— to describe special and universal self-regulatory and motivational resources of students that ensure success of their research project;

— to identify the mediating role of self-regulation in the relationship between academic motivation and the final assessment of the project.

Research Methods

Diagnostics of the self-regulation competences of conscious self-regulation was carried out by means of the "Self-Regulation Profile of Learning Activity Questionnaire (SRPLAQ-M)" [16]. The questionnaire consists of 67 statements constituting 8 scales. Of these, 4 scales characterize operational competences: planning goals, modelling significant conditions for their achievement, programming actions, and evaluating the obtained results. The other 4 scales assess personal competences of the self-regulation: flexibility, independence, responsibility, and reliability. These scales make it possible to assess the degree of formation of the competences reflecting typical for a particular student ways of projecting and organizing conscious activity, which are steadily repeated in a variety of educational situations. The integrative index of the questionnaire makes it possible to assess the general level of development of conscious self-regulation of learning activity.

The "Scales of Academic Motivation of Schoolchildren (SAMS)" [3] allowed to assess 8 types of academic motivation: cog-

nitive motivation, achievement motivation, self-development motivation, self-esteem motivation, introjected motivation, parental respect motivation, externalized motivation, and amotivation.

The total score for the project consisted of the following indicators: research score (setting the research goal, ability to analyse preliminary knowledge on the topic), work planning score (detailed description of the work progress), product score (evaluation of the quality of the research product), reflection score (comprehension and interpretation of the research results).

This methodology of individual project assessment was used within the framework of the International Baccalaureate (IB) programme at the basic school level (Middle Years Programme). The maximum possible score for each indicator was 8. The maximum possible final score for the project was 32. Grades for the projects were given by the expert teachers. The students submitted 53% of projects on the natural science and technical topics and 47% of projects on humanitarian topics.

Statistical data analysis included correlation analysis (Pearson coefficient calculation), regression analysis (inclusion method, stepwise selection), moderation-mediation analysis (PROCESS software package, version 4 for SPSS), implemented in accordance with the algorithm and recommendations proposed by Christopher Pritcher and Andrew Hayes [31].

Sample and research design.

During three years, the study involved 9th grade students (N=187) of general education schools in Moscow aged 15—16 years (59 % — boys). The study of self-regulation and motivation was conducted at the beginning of the academic year before the students participated in the project activity. The individual project was not limited thematically and was carried out by each student independently.

Research Results

Before using multivariate statistical methods, the normality of the variables distribution was assessed by means of the Kolmogorov-Smirnov criterion. The obtained results allowed to establish that the data were distributed normally.

At the initial stage, the correlation coefficient was calculated to identify the relationship between the success of project work performance and the indicators of self-regulation and motivation. Significant correlations are presented in Table 1.

The data analysis has revealed statistically reliable positive correlations of self-regulation with motivation indicators on the one hand, and with success of project work performance — on the other hand. Negative correlations were not found. The most pronounced correlations were found between the indicator “Final Project Score” and the indicators of the self-regulation “Planning”, “Modelling”, “Result Evaluation”, “Reliability of regulation”, “General level of self-regulation”, and also with the scales “Cognitive

motivation” and “Achievement motivation”. It is noteworthy that the final score for the project positively correlates with almost all indicators of the self-regulation — both operational and personal, except for the indicators of “Flexibility” and “Programming”.

The correlation analysis showed that both the scores on various criteria of project work assessment and the final project score are related to the level of development of self-regulation, cognitive motivation, and achievement motivation. The obtained results of correlation analysis support the assumption that operational (planning, modelling, result evaluation) and personal (reliability) competences of self-regulation, as well as achievement motivation and cognitive motivation can make a significant contribution to the success of students’ project-research work.

At the next stage of the data processing, multiple regression analysis was conducted in order to identify significant predictors of students’ success in the project-research work, as well as

Table 1

Significant correlations between criteria of project work success and indicators of self-regulation and motivation

Indicators	Criteria of project work assessment				
	Research Score	Planning Score	Product Score	Reflection Score	Final Project Score
Planning (SRPLAQ-M)	.188*	.182*	.211*	.182*	.202**
Modelling (SRPLAQ-M)	.171*	.186*	.199**	.210**	.201**
Result Evaluation (SRPLAQ-M)	.170*	.156*	.193**	.257**	.207**
Flexibility (SRPLAQ-M)		.145*			
Independence (SRPLAQ-M)			.181*		
Reliability (SRPLAQ-M)	.167*		.213**	.19**	.191**
Responsibility (SRPLAQ-M)	.160*	.163*	.160*	.146*	.176*
General SR Level (SRPLAQ-M)	.207**	.199**	.244**	.219**	.233**
Cognitive Motivation (SAMS)	.174*	.212**	.244**	.166*	.210**
Achievement Motivation (SAMS)	.204**	.207**	.252**	.210**	.233**
Self-development Motivation (SAMS)	.153*	.186*	.226**		.187*

Significance level: * — $p < 0.05$; ** — $p < 0.01$.

to find out universal and special competences of the self-regulation, which can predict their success. The dependent variables were the final project score and the described indicators of project performance. As predictors we considered those indicators of motivation and characteristics of the self-regulation that showed significant links with the success of project-research work.

The obtained regression models are statistically significant ($p=0.001-0.004$). Achievement motivation and result evaluation turned to be the significant predictors for the dependent variable “Final project score”. According to the obtained model, we can predict that the better the student develops the competence of the evaluation of his own result and the higher is his achievement motivation, the more successfully he will perform the project. Of course, we do not ignore the fact that the level of development of cognitive abilities and learning competence in the subject area also influence the success of project implementation. Obviously, the inclusion of these components in the regression will significantly increase the percentage of explained variance. However, in our case, the contribution of the considered variables

is quite high. It should be noted that when creating regression models where the dependent variables were different indicators of project performance, the significant predictors were achievement motivation, cognitive motivation, competences of simulation and result evaluation.

Let us consider regression models including the general level of conscious self-regulation.

The general level of self-regulation development turned to be the significant predictor for the dependent variable “Final Project Score”. When building regression models where the dependent variables were different indicators of project performance, the significant predictors were achievement motivation, cognitive motivation, and the general level of self-regulation.

Thus, the study has shown that a properly organized project activity is impossible without applying the students’ competences of the self-regulation. At the same time, the process of project implementation itself stimulates the development of conscious self-regulation, being the basis for developing the general ability for self-regulation. The conducted regression analysis allows to conclude that there are universal and special competences determining the

Table 2

Regression models with inclusion of different components of conscious self-regulation

Dependent variables	R ²	Adjusted R ²	F	Significant predictors	β	Significance
Final Project Score	.279	.078	7.776	Achievement Motivation	.193	.009
				Result Evaluation	.159	.031
Research Score	.204	.042	8.039	Achievement Motivation	.204	.005
Planning Score	.257	.066	6.502	Cognitive Motivation	.181	.014
				Modelling	.148	.044
Product Score	.290	.084	8.462	Achievement Motivation	.217	.003
				Modelling	.148	.044
Reflection Score	.298	.089	8.992	Result Evaluation	.219	.003
				Achievement Motivation	.156	.033

Table 3

Regression models with inclusion of general level of conscious self-regulation

Dependent variables	R ²	Adjusted R ²	F	Significant predictors	β	Significance
Final Project Score	.206	.063	10.635	General SR Level	.233	.001
Research Score	.207	.043	8.293	General SR Level	.207	.004
Planning Score	.212	.045	8.748	Cognitive Motivation	.212	.004
Product Score	.252	.064	12.582	Achievement Motivation	.252	.000
Reflection Score	.219	.048	9.296	General SR Level	.219	.003

students' success in the research project implementation. Special competences include operational simulation and result evaluation, while the general level of self-regulation is a universal resource. Intrinsic motivation, represented by achievement motivation and cognitive motivation, is also a significant factor in performing project-research activities at a high level.

The obtained results became the basis for the hypothesis that conscious self-regulation can mediate the influence of motivation on the effectiveness of a student's project activity. The statement of the supposition in this way is justified by the fact that, firstly, conscious self-regulation and academic motivation may be differently related in various periods of schooling, and secondly, their role in the success of different types of education activities may also vary [14].

To verify this hypothesis, we used the statistical method of mediator analysis. This method allows not only to determine significant causal relationships between variables, but also to identify which variables can act as mediators (mediating variables). Significant mediator effects refer to the fact that the influence of independent variable on the dependent variable is to some extent "corrected" by the mediator. In the context of the research objectives, the dependent variable was the indicator

of individual project success (final project score), the independent variables were indicators of various types of academic motivation. The characteristics of the self-regulation were supposed to be mediating variables.

During the mediator analysis procedure, each of the models was tested separately, i. e. the mediating variables were included into the model sequentially. According to the analysis results, a significant mediator effect was confirmed only for the competence "result evaluation" and only when the independent variables were the indicators of achievement motivation and cognitive motivation. The mediator model including the general level of self-regulation turned out to be insignificant. Statistical parameters of the significant mediator model "Achievement Motivation — Result Evaluation — Final Project Score" are presented in Table 4 (standardized beta coefficients were analyzed).

Mediator effects were assessed by means of the "bootstrap" procedure (N = 5000). Effects are considered significant if the 95% confidence interval does not include zero. In addition, regression coefficients analysis indicates that when a mediator is included in the regression equations, the regression weight of the independent variable decreases but remains significant. In this particular case, partial mediation

Table 4

Regression coefficients of indicators of mediator models

	b	SE	t	p	95% confidence interval	
Achievement Motivation => Final Project Score	.193	.622	2.648	.009	.419	2.872
Achievement Motivation => Result Evaluation	.245	.110	3.466	.001	.167	.600
Achievement Motivation => Result Evaluation => Final Project Score	.160	.402	2.175	.031	.081	1.666
General Effect	.233	.608	3.254	.001	.779	3.180

takes place. That is, both achievement motivation and result evaluation (as a competence of the self-regulation), being significant predictors of project success, are characterized by specific causal relationships. Achievement motivation seems to actualize and initiate students' ability to regulate their own activity, which ultimately contributes to more successful project implementation.

In the next model, the level of cognitive motivation was considered as an independent variable. Statistical parameters are presented in Table 5 (standardized beta coefficients were analyzed). In contrast to the previous model, we can observe a less close relationship between result evaluation and cognitive motivation. But a partial mediator effect was also confirmed.

Discussion

We have obtained results confirming the hypothesis that there are interrelations of the conscious self-regulation components with achievement motivation and cognitive

motivation on the one hand and with success of project work — on the other hand. The results analysis allowed to substantiate our assumption that there are competences of the self-regulation that can act as resources for successful implementation of the students' project activities at different stages of project implementation.

The obtained results indicate that psychological support of project activity will be effective for the development of the competences to ensure successful project implementation. Practically useful is the recommendation for teachers to use the methodology of assessment of self-regulation development at the initial stage of support of the students' project activities [16]. It allows to choose the right strategies for supporting the students at all stages of project work. V.S. Lazarev notes that project activity requires evaluating one's own actions practically at all stages of project implementation [10]. However, most students have not formed the competences of the self-regulation of

Table 5

Regression coefficients of indicators of mediator models

	b	SE	t	p	95% confidence interval	
Cognitive Motivation => Final Project Score	.176	.644	2.433	.016	.296	2.839
Cognitive Motivation => Result Evaluation	.195	.117	2.702	.007	.085	.546
Cognitive Motivation => Result Evaluation => Final Project Score	.172	.398	2.381	.018	.162	1.733
General Effect	.209	.640	2.917	.004	.600	3.129

result evaluating, comparing the achieved result with the designated goal, so special attention should be paid to the development of this competence. Our study made it possible to verify and confirm this fact. In addition, the study of age-specific features of conscious self-regulation indicates that the components of self-regulation are formed unevenly in the process of school education. At the same time, the analysis of the predictors of the self-regulation of academic performance has allowed us to establish that the competence of the self-regulation is a consistently reliable factor of academic performance for the students from 5th to 11th grade [15].

The results we obtained when analyzing the relationship between conscious self-regulation and academic motivation are also interesting. The relationship between intrinsic motivation and conscious self-regulation has been confirmed [8; 15]. The analysis of different theories of self-regulated learning also indicates that self-regulation provides effective management of motivation [22].

For the prospective studies, we would like to point out the potential of the project-research activities both for the development of the competences of the self-regulation and for the formation of productive forms of internal motivation. In this context, we appreciate the position of A.S. Obukhov, who, in his comments on the relationship between meta-cognition and motivation, insists on studying these phenomena in situations of risk, choice, novelty, uncertainty, freedom of initiative action [18]. Project activity has the potential to create such situations, contributing to emergence and formation of educative initiative, intrinsic motivation, purposeful behavior, and perseverance. Our results clearly indicate that in the case of research projects it is the development of the general ability to self-regulation that is a signifi-

cant prerequisite and universal resource for students, for whom the creation and implementation of the project is a new unusual learning situation.

The results obtained in this study are undoubtedly of the fundamental psychological significance, as they empirically verify and replicate for the first time on the material of project activities the previously developed provisions of the resource approach. They positulate that human resources of the self-regulation not only contribute to the productive aspects of achieving educational goals, but also serve as a mechanism for managing, coordination and mediation of the motivational resources and reserves of a person to solve a variety of tasks and life activities.

The prospect of our research is to conduct a formative experiment, which results will be used to develop technologies and methodological recommendations for the teachers on the development of students' self-regulation in the process of preparation and implementation of their project-research work.

Conclusions

1. Motivation and competences of students' self-regulation are positively related to each other and to the success of their project work.
2. Indicators of academic motivation and general level of the self-regulation characterize universal resources of successful implementation of research projects, as they make a significant contribution to the majority of expert assessments of their performance.
3. Competences of the self-regulation as a special resource of project work success are positively related to certain pedagogical criteria for assessment of its implementation. Thus, the levels of development of special competences of the operation simulation of significant conditions of goal achievement, flexibility, and reliability are

positively related to the assessment of the product of research activity as well as the students' reflexivity.

4. Achievement motivation and cognitive motivation are also interrelated with success of students' project work implementation, but their contribution significantly depends on the competence of the results evaluation.

5. The analysis of students' competences can become the basis for assessing the prerequisites for the success of their individual projects even before the start of the project-research activities,

which will help teachers to choose the right strategies for helping students. Support of this kind on behalf of a teacher can be oriented to the development of insufficiently formed competences (e.g., teaching how to correctly evaluate the obtained result at each stage, comparing it with the set task). It can also help the students to effectively engage in project activities and successfully complete the project by involving resources of the self-regulation, which, in turn, will contribute to the development of educational meta-cognitive universal actions.

References

1. Federal'nyi gosudarstvennyi obrazovatel'nyi standart osnovnogo obshchego obrazovaniya [Elektronnyi resurs] [The federal state educational standard of basic general education]. Utverzhden prikazom Ministerstva obrazovaniya i nauki Rossiiskoi Federatsii ot 31 maya 2021 g. № 287. URL: <https://www.garant.ru/products/ipo/prime/doc/401333920/> (Accessed 11.11.2022). (In Russ.).
2. Vakhrushev S.A., Dmitriev V.A. Nekotorye problemy vnedreniya proektnoi deyatel'nosti v shkol'nom obrazovanii [Some problems of implementing project activities in school education]. *Azimut nauchnykh issledovaniy: pedagogika i psikhologiya [Azimuth of scientific research: pedagogy and psychology]*, 2021. Vol. 10, no. 1(34), pp. 40—44. DOI:10.26140/anip-2021-1001-0008 (In Russ.).
3. Gordeeva T.O., Sychev O.A., Gizhitskii V.V., Gavrichenkova T.K. Shkaly vnutrennei i vneshnei akademicheskoi motivatsii shkol'nikov [Scales of internal and external academic motivation of schoolchildren]. *Psikhologicheskaya nauka i obrazovanie = Psychological Science and Education*, 2017. Vol. 22, no. 2, pp. 65—74. DOI:10.17759/pse.201722020 (In Russ.).
4. Gutorova G.D. Metapredmetnye kompetentsii i otsenka urovnya ikh sformirovannosti u obuchayushchikhsya osnovnoi shkoly [Meta-subject competencies and assessment of the level of their formation among students of the basic school]. *Filologiya i kultura [Philology and Culture]*, 2021, no. 2(64), pp. 239—245. DOI:10.26907/2074-0239-2021-64-2-239-245 (In Russ.).
5. Gushchina Yu.A. Proektnaya deyatel'nost' kak sredstvo razvitiya samoregulyatsii mladshikh podrostkov [Project activity as a means of developing self-regulation of younger adolescents]. *Yaroslavskii pedagogicheskii vestnik [Yaroslavl Pedagogical Bulletin]*, 2022, no. 2(125), pp. 33—42. DOI:10.20323/1813-145X-2022-2-125-33-42 (In Russ.).
6. Individual'nyi projekt: rabochaya tetrad'. 10—11 klassy. Uchebnoe posobie [Individual project: workbook. Grades 10-11. Study guide]. In L.E. Spiridonova, B.A. Komarov, O.V. Markova, V.M. Statsunova (ed.). Saint-Petersburg: KARO, 2019. (In Russ.).
7. Issledovatel'skaya i proektnaya rabota shkol'nikov. 5—11 klassy [Research and project work of schoolchildren. Grades 5—11]. In Leontovich A.V. (ed.). Moscow: VAKO, 2014. 160 p. (Sovremennaya shkola: upravlenie i vospitanie). (In Russ.).
8. Ishmuratova Yu.A., Potanina A.M., Bondarenko I.N. Vklad osoznannoi samoregulyatsii, вовлеченности i motivatsii v akademicheskuyu uspevaemost' shkol'nikov v raznye periody obucheniya [The contribution of conscious self-regulation, involvement and motivation to the academic performance of schoolchildren in different periods of study]. *Psikhologicheskaya nauka i obrazovanie = Psychological Science and Education*, 2021. Vol. 26, no. 5, pp. 17—29. DOI:10.17759/pse.2021260502 (In Russ.).
9. Lazarev V.S. K probleme postroeniya modeli «shkoly budushchego» [On the problem of building a model of the “school of the future”]. *Psikhologicheskaya nauka i obrazovanie = Psychological Science and Education*, 2021. Vol. 26, no. 4. DOI:10.17759/pse.2021260406 (In Russ.).
10. Lazarev V.S. Proektnaya deyatel'nost' uchashchikhsya kak forma razvivayushchego obucheniya [Project activity of students as a form of developing learning]. *Psikhologicheskaya nauka i obrazovanie = Psychological Science and Education*, 2015. Vol. 20, no. 3, pp. 25—34. DOI:10.17759/pse.20 (In Russ.).
11. Leontovich A.V. Ob osnovnykh ponyatiyakh kontseptsii razvitiya issledovatel'skoi i proektnoi

deyatel'nosti uchaschchikhsya [About the basic concepts of the concept of development of research and project activities of students]. *Issledovatel'skaya rabota shkol'nikov [Research work of schoolchildren]*, 2003. Vol. 4, pp. 18—24. (In Russ.).

12. Morosanova V.I. Osoznannaya samoregulyatsiya kak metaresurs dostizheniya tselei i razresheniya problem zhiznedeyatel'nosti [Conscious self-regulation as a meta-resource for achieving goals and solving life problems]. *Vestnik Moskovskogo universiteta [Bulletin of the Moscow University]*. Seriya 14. Psikhologiya [Psychology], 2021. Vol. 1, pp. 3—37. DOI:10.11621/vsp.2021.01.01 (In Russ.).

13. Morosanova V.I., Filippova E.V. Regulyatornye resursy v dostizhenii rezul'tatov proektno-issledovatel'skoi deyatel'nosti obuchayushchikhsya [Regulatory resources in achieving the results of students' design and research activities]. *Psikhologiya samoregulyatsii v kontekste aktual'nykh zadach obrazovaniya [Psychology of self-regulation in the context of actual educational tasks]* (k 90-letiyu so dnya rozhdeniya O.A. Konopkina). Moscow: Psikhologicheskii institut Rossiiskoi akademii obrazovaniya, 2021, pp. 84—89 (In Russ.).

14. Morosanova V.I., Fomina T.G., Ovanesbekova M.L. Vzaimosvyaz' osoznannoi samoregulyatsii, motivatsii i lichnostnykh dispozitsii s uspevaemost'yu shkol'nikov [The relationship of conscious self-regulation, motivation and personal dispositions with school performance]. *Vestnik Rossiiskogo fonda fundamental'nykh issledovaniy. Gumanitarnye i obshchestvennye nauki [Bulletin of the Russian Foundation for Fundamental Research. Humanities and social sciences]*, 2018, no. 2, pp. 124—133. (In Russ.).

15. Morosanova V.I., Fomina T.G., Ovanesbekova M.L. Vozrastnaya spetsifika vzaimosvyazi osoznannoi samoregulyatsii, akademicheskoi motivatsii i lichnostnykh osobennosti uchaschchikhsya [Age-specific relationship of conscious self-regulation, academic motivation and personal characteristics of students]. *Teoreticheskaya i eksperimental'naya psikhologiya [Theoretical and experimental psychology]*, 2017. Vol. 10, no. 3, pp. 34—45. (In Russ.).

16. Morosanova V.I. Sozдание novoi versii oprosnogo metoda «Stil' samoregulyatsii uchebnoi deyatel'nosti — SSUDM» [Creation of a new version of the questionnaire method “Style of self—regulation of educational activity — SSUDM”]. *Teoreticheskaya i eksperimental'naya psikhologiya [Theoretical and experimental psychology]*, 2011. Vol. 4, pp. 5—15. (In Russ.).

17. Morosanova V.I., Fomina T.G. Osoznannaya samoregulyatsiya v sisteme psikhologicheskikh prediktorov dostizheniya uchebnykh tselei [Conscious self-regulation in the system of psychological

predictors of achievement of educational goals]. *Voprosy psikhologii [Questions of psychology]*, 2016. Vol. 2, pp. 124—135. (In Russ.).

18. Obukhov A.S. Sovremennye issledovaniya problemy motivatsii i samoregulyatsii cheloveka v situatsii neopredelennosti i izmenchivosti mira [Modern studies of the problem of motivation and self-regulation of a person in a situation of uncertainty and variability of the world]. *Issledovatel' [Researcher]*, 2019. Vol. 1—2(25—26), pp. 10—21. (In Russ.).

19. Ofitsial'nyi sait Mezhdunarodnogo bakalavriata [Elektronnyi resurs] [Official website of the International Baccalaureate]. URL: <http://www.ibo.org/> (Accessed 06.09.2022). (In Russ.).

20. Savenkov A.I. Psikhologicheskie osnovy issledovatel'skogo podkhoda k obucheniyu [Psychological foundations of the research approach to learning]. Moscow: Prosveshchenie, 2016. 64 p. (In Russ.).

21. Sukhodimtseva A.P., Sergeeva M.G., Sokolova N.L. Proektnyi podkhod k realizatsii metapredmetnogo soderzhaniya obrazovaniya v shkole [Project approach to the implementation of the meta-subject content of education at school]. *Nauchnyi dialog [Scientific dialogue]*, 2017. Vol. 9, pp. 240—258. DOI:10.24224/2227-1295-2017-9-240-258 (In Russ.).

22. Fomina T.G. Kontseptual'nye podkhody k analizu samoreguliremogo obucheniya v zarubezhnoi psikhologii obrazovaniya [Elektronnyi resurs] [Conceptual approaches to the analysis of self-regulated learning in foreign psychology of education]. *Sovremennaya zarubezhnaya psikhologiya [Modern Foreign Psychology]*, 2022. Vol. 11, no. 3, pp. 27—37. (In Russ.).

23. Aksela M., Haatainen O. Project-based learning (PBL) in practise: Active Teachers' Views of Its Advantages and Challenges. Integrated Education for the Real World: 5th International STEM in Education Conference Post-Conference Proceedings Queensland University of Technology, 2019, pp. 9—16.

24. Annetta L.A., Lamb R., Vallett D., Shapiro M. Project-based learning progressions: Identifying the nodes of learning in a project-based environment. *Contemporary Technologies in Education: Maximizing Student Engagement, Motivation, and Learning*, 2019. pp. 163—181. DOI:10.1007/978-3-319-89680-9_9

25. Brassler M., Dettmers J. How to Enhance Interdisciplinary Competence—Interdisciplinary Problem-Based Learning versus Interdisciplinary Project-Based Learning. *Interdisciplinary Journal of Problem-Based Learning*, 2017. Vol. 11(2). DOI:10.7771/1541-5015.1686

26. Chen C.H., Yang Y.C. Revisiting the effects of project-based learning on students' academic achievement: A meta-analysis investigating moderators. *Educational Research Review*,

2019. Vol. 26, pp. 71—81. DOI:10.1016/j.edurev.2018.11.001
27. Grossman P., Dean C.G.P., Kavanagh S.S., Herrmann Z. Preparing teachers for project-based teaching. *Phi Delta Kappan*, 2019. Vol. 100(7), pp. 43—48. DOI:10.1177/0031721719841338
28. Krajcik J., Shin N. Project-Based Learning. In R. Sawyer (Ed.). *The Cambridge Handbook of the Learning Sciences*. Cambridge Handbooks in Psychology. Cambridge: Cambridge University Press, 2014, pp. 275—297. DOI:10.1017/CBO9781139519526.018
29. Mohamadi Z. Comparative effect of project-based learning and electronic project-based learning on the development and sustained development of english idiom knowledge. *Journal of Computing in Higher Education*, 2018. Vol. 30, no. 2, pp. 363—385. DOI:10.1007/s12528-018-9169-1
30. Morosanova V.I., Fomina T.G., Kovas Y., Bogdanova O.Y. Cognitive and regulatory characteristics and mathematical performance in high school students. *Personality and Individual Differences*, 2016. Vol. 90, pp. 177—186.
31. Preacher K.J., Hayes A.F. SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior research methods, instruments, & computers*, 2004. Vol. 36, no. 4, pp. 717—731.
32. Saad A., Zainudin S. A review of Project-Based Learning (PBL) and Computational Thinking (CT) in teaching and learning. *Learning and Motivation*, 2022. Vol. 78, p. 101802. DOI:10.1016/j.lmot.2022.101802
33. Stefanou C. et al. Self-regulation and autonomy in problem-and project-based learning environments. *Active Learning in Higher Education*, 2013. Vol. 14, no. 2, pp. 109—122. DOI:10.1177/1469787413481132
34. Wu T.T. et al. Application and analysis of a mobile e-book system based on project-based learning in community health nursing practice courses. *Journal of Educational Technology & Society*, 2018. Vol. 21, no. 4, pp. 143—156.

Литература

1. Федеральный государственный образовательный стандарт основного образования, утвержден приказом Министерства образования и науки Российской Федерации от 31 мая 2021 г. № 287 [Электронный ресурс]. URL: <https://www.garant.ru/products/ipo/prime/doc/401333920> (дата обращения: 11.11.2022).
2. Вахрушев С.А., Дмитриев В.А. Некоторые проблемы внедрения проектной деятельности в школьном образовании // Азимут научных исследований: педагогика и психология. 2021. Т. 10. № 1(34). С. 40—44. DOI:10.26140/anip-2021-1001-0008
3. Гордеева Т.О., Сычев О.А., Гижицкий В.В., Гавриченко Т.К. Шкалы внутренней и внешней академической мотивации школьников // Психологическая наука и образование. 2017. Том 22. № 2. С. 65—74. DOI:10.17759/pse.2017220206
4. Гуророва Г.Д. Метапредметные компетенции и оценка уровня их сформированности у обучающихся основной школы // Филология и культура. 2021. № 2(64). С. 239—245. DOI:10.26907/2074-0239-2021-64-2-239-245
5. Гушина Ю.А. Проектная деятельность как средство развития саморегуляции младших подростков // Ярославский педагогический вестник. 2022. № 2(125). С. 33—42. DOI:10.20323/1813-145X-2022-2-125-33-42
6. Индивидуальный проект: рабочая тетрадь. 10—11 классы. Учебное пособие / Л.Е. Спиридонова, Б.А. Комаров, О.В. Маркова, В.М. Стацунова. СПб.: КАРО, 2019.
7. Исследовательская и проектная работа школьников. 5—11 классы / Под ред. А.В. Леонтовича. Современная школа: управление и воспитание. М.: ВАКО, 2014. 160 с.
8. Ишмуратова Ю.А., Потанина А.М., Бондаренко И.Н. Вклад осознанной саморегуляции, вовлеченности и мотивации в академическую успеваемость школьников в разные периоды обучения // Психологическая наука и образование. 2021. Том 26. № 5. С. 17—29. DOI:10.17759/pse.2021260502
9. Лазарев В.С. К проблеме построения модели «школы будущего» // Психологическая наука и образование. 2021. Т. 26. № 4. DOI:10.17759/pse.2021260406
10. Лазарев В.С. Проектная деятельность учащихся как форма развивающего обучения // Психологическая наука и образование. 2015. Т. 20. № 3. С. 25—34. DOI:10.17759/pse.20
11. Леонтович А.В. Об основных понятиях концепции развития исследовательской и проектной деятельности учащихся // Исследовательская работа школьников. 2003. № 4. С. 18—24.
12. Морсанова В.И. Осознанная саморегуляция как метаресурс достижения целей и разрешения проблем жизнедеятельности // Вестник Московского университета. Серия 14. Психология. 2021. № 1. С. 3—37. DOI:10.11621/vsp.2021.01.01
13. Морсанова В.И., Филиппова Е.В. Регуляторные ресурсы в достижении результатов проектно-исследовательской деятельности обучающихся // Психология саморегуляции в контексте актуальных задач образования

(к 90-летию со дня рождения О.А. Конопкина). М.: Психологический институт Российской академии образования, 2021. С. 84—89.

14. Моросанова В.И., Фомина Т.Г., Ованесбекова М.Л. Взаимосвязь осознанной саморегуляции, мотивации и личностных диспозиций с успеваемостью школьников // Вестник Российского фонда фундаментальных исследований. Гуманитарные и общественные науки. 2018. № 2. С. 124—133.

15. Моросанова В.И., Фомина Т.Г., Ованесбекова М.Л. Возрастная специфика взаимосвязи осознанной саморегуляции, академической мотивации и личностных особенностей учащихся // Теоретическая и экспериментальная психология. 2017. Т. 10. № 3. С. 34—45.

16. Моросанова В.И. Создание новой версии опросного метода «Стиль саморегуляции учебной деятельности — ССУДМ» / В.И. Моросанова, А.В. Ванин, И.Ю. Цыганов // Теоретическая и экспериментальная психология. № 4. 2011. С. 5—15.

17. Моросанова В.И., Фомина Т.Г. Осознанная саморегуляция в системе психологических предикторов достижения учебных целей // Вопросы психологии. 2016. № 2. С. 124—135.

18. Обухов А.С. Современные исследования проблемы мотивации и саморегуляции человека в ситуации неопределенности и изменчивости мира // Исследователь/Researcher. 2019. № 1—2(25—26). С. 10—21.

19. Официальный сайт Международного бакалавриата [Электронный ресурс]. URL: <http://www.ibo.org/> (дата обращения: 06.09.2022).

20. Савенков А.И. Психологические основы исследовательского подхода к обучению. М.: Просвещение, 2016. 64 с.

21. Суходимцева А.П., Сергеева М.Г., Соколова Н.Л. Проектный подход к реализации метапредметного содержания образования в школе // Научный диалог. 2017. № 9. С. 240—258. DOI:10.24224/2227-1295-2017-9-240-258

22. Фомина Т.Г. Концептуальные подходы к анализу саморегулируемого обучения в зарубежной психологии образования [Электронный ресурс] // Современная зарубежная психология. 2022. Том 11. № 3. С. 27—37.

23. Aksela M., Haatainen O. Project-based learning (PBL) in practise: Active Teachers' Views of Its Advantages and Challenges // Integrated Education for the Real World: 5th International STEM in Education Conference Post-Conference Proceedings Queensland University of Technology. 2019. P. 9—16.

24. Annetta L.A., Lamb R., Vallett D., Shapiro M. Project-based learning progressions: Identifying the nodes of learning in a project-based environment // Contemporary Technologies in Education: Maximizing Student Engagement, Motivation, and Learning. 2019. P. 163—181. DOI:10.1007/978-3-319-89680-9_9

25. Brassler M., Dettmers J. How to Enhance Interdisciplinary Competence—Interdisciplinary Problem-Based Learning versus Interdisciplinary Project-Based Learning // *Interdisciplinary Journal of Problem-Based Learning*. 2017. Vol. 11(2). DOI:10.7771/1541-5015.1686

26. Chen C.H., Yang Y.C. Revisiting the effects of project-based learning on students' academic achievement: A meta-analysis investigating moderators // *Educational Research Review*. 2019. Vol. 26. P. 71—81. DOI:10.1016/j.edurev.2018.11.001

27. Grossman P., Dean C.G.P., Kavanagh S.S., Herrmann Z. Preparing teachers for project-based teaching // *Phi Delta Kappan*. 2019. Vol. 100(7). P. 43—48. DOI:10.1177/0031721719841338

28. Krajcik J., Shin N. Project-Based Learning / In R. Sawyer (Ed.) // *The Cambridge Handbook of the Learning Sciences*. Cambridge Handbooks in Psychology. Cambridge: Cambridge University Press, 2014. P. 275—297. DOI:10.1017/CBO9781139519526.018

29. Mohamadi Z. Comparative effect of project-based learning and electronic project-based learning on the development and sustained development of english idiom knowledge // *Journal of Computing in Higher Education*. 2018. Vol. 30. № 2. P. 363—385. DOI:10.1007/s12528-018-9169-1

30. Morosanova V.I., Fomina T.G., Kovas Y., Bogdanova O.Y. Cognitive and regulatory characteristics and mathematical performance in high school students // *Personality and Individual Differences*. 2016. Vol. 90. P. 177—186.

31. Preacher K.J., Hayes A.F. SPSS and SAS procedures for estimating indirect effects in simple mediation models // *Behavior research methods, instruments, & computers*. 2004. Vol. 36. № 4. P. 717—731.

32. Saad A., Zainudin S. A review of Project-Based Learning (PBL) and Computational Thinking (CT) in teaching and learning // *Learning and Motivation*. 2022. Vol. 78. P. 101802. DOI:10.1016/j.lmot.2022.101802

33. Stefanou C. et al. Self-regulation and autonomy in problem-and project-based learning environments // *Active Learning in Higher Education*. 2013. Vol. 14. № 2. P. 109—122. DOI:10.1177/1469787413481132

34. Wu T.T. et al. Application and analysis of a mobile e-book system based on project-based learning in community health nursing practice courses // *Journal of Educational Technology & Society*. 2018. Vol. 21. № 4. P. 143—156.

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Age Differences in Perceptions of the Future from Adolescence to Adulthood

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The study is aimed at studying ideas about the future. The materials of an empirical study obtained on a sample (N=1538) aged 14 to 28 years are presented. We use the method of I.S. Cohn "I am in 5 years" and the method of unfinished sentences Zh. Nyutten. The results obtained make it possible to say that there is a certain sequence in the formation of the image of the future: teenagers see the future as something that will "happen" to them, boys/girls form goals and ideas about a happy family, then form connections of their capabilities with time, and young people through the idea of future professional activity realize the image of their family and your personality. There is evidence that teenagers consider the future within their social institution, boys and girls build their future based on the next stage of social life, and young people perceive the future as a continuation of the present.

Keywords: youth; adolescence; emerging adulthood; growing up; the image of the future; time perspective; dynamics in the idea of the future.

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Возрастные различия в представлениях о будущем от подростничества до взрослости

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Представлены материалы эмпирического исследования, полученного на выборке (N=1538) в возрасте от 14 до 28 лет, из них: подростковый возраст (14 лет) — 304 человека, ранний юношеский (15—18 лет) — 500 че-

люлек, поздний юношеский (19—23 года) — 381 человек, возраст молодости или возникновения взрослости (24—28 лет) — 383 человека. Работа была направлена на установление характера возрастных изменений образа собственного будущего в современной социальной и культурной ситуации в период от подростничества до взрослости. Использовались методика И.С. Кона «Я через 5 лет» и методика незаконченных предложений Ж. Нюттена. Обработка данных осуществлялась с помощью дисперсионного анализа ANOVA и кластерного анализа методом Уорда (программный пакет «R»). Новизна проведенного исследования заключается в выявлении возрастных различий в представлениях о будущем в период от подросткового возраста до возраста молодости. Полученные результаты дают возможность говорить о том, что формирование образа будущего зависит от возраста. Подростки видят будущее как то, что с ними «случится», юноши/девушки формируют цели и представления о счастливой семье, затем формируют связи своих возможностей со временем, в периоде возникновения взрослости человек через представление о будущей профессиональной деятельности осознает образ своей семьи и своей личности. Приводятся свидетельства того, что подростки рассматривают будущее внутри своего социального института, юноши и девушки строят свое будущее исходя из следующего этапа социальной жизни, а респонденты периода возникновения взрослости будущее воспринимают как продолжение настоящего.

Ключевые слова: юношество; подростничество; период возникновения взрослости; взросление; образ будущего; временная перспектива; динамика в представлении о будущем.

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Introduction

Thoughts about the future are of paramount importance for adolescents and youths. Thinking about the future and acting in accordance with this is a life-long task, but it receives significant development in youths [1; 4; 14; 17]. The present research considers changes in the image of the future from adolescence to emerging adulthood which characterize the contemporary youth. Future time perspective is a kind of cognitive motivation of the individual characteristic of understanding and planning by a person of his/her future, it can also influence individual behavior at present through forming aims and awareness of achievements [23]. Former research showed that future time perspective can positively influence academic performance,

strategy of education and educational outcomes [26; 12; 13], and negatively influence dependence on the internet and other kinds of addiction [16; 25]. People with a well-developed time perspective can sacrifice short-term benefits in favor of long-term results, and this ability to postpone momentary pleasures allows them to achieve higher results [19].

Lack of a positive future perspective may hinder tasks of development and may be a serious risk factor because a time perspective is crucial for well-being, motivation, and behavior [5; 20; 24]. Ideas on the future are an important part of life for any person, and the concept of the “psychological future” is addressed to the cognitive sphere and is connected with a mature attitude of an individual to the time

of his/her life [2]. The duration of the “expected future” affects a person’s behavior at present, it significantly increases in the youth [7]. Time categories or frames connect personal and social experiences, they give meaning, order and consistency to life events, they affect the ability to foresee and plan future desired results. Time categories refer to thoughts, ideas and feelings which people experience about their future [24]. Forecasting one’s own future, which in our culture is associated first of all with professional self-determination, selecting a university and future job, is one of the important markers of growing up.

At present, young people have to think about the future in a quickly changing cultural and social context. From the beginning of the 21st century professional employment and stability, which gave a safe foundation for seeing the future have been replaced by a new social structure of labor and new forms of employment. The modern world of work is characterized by temporary forms of employment, lack of employment guarantees, projects limited in time, high competition in the labor market and fragmented career paths. Transition to adult life from this point of view has changed from simple social determinant to individual personal choice that is built in socio-cultural contexts, and the criteria of reaching adulthood have become more flexible and subjective [24]. The future “I” can be considered as a project of building the “adult self” from the point of view of hopes and fears which provide the foundation for forecasting future events, setting tasks, setting , forming plans, studying alternatives, taking responsibilities and self-development management [22].

The modern situation in which institutionalized forms of growing up “create a challenge for classical psychological approaches — cultural-historic and activity-based” [8], and a life scenario no longer resembles an uncontested “beaten track” in which everything was in a strict order: education, work, family.

The question of the sequence of changes in the idea of the future as an understanding of growing up becomes important, accordingly. The aim of this research was to establish the nature of age-related changes in the image of one’s own future in the modern social and cultural situation in the period from adolescence to adulthood.

Organization of the research process, features of the tools used and sampling

The sample of our research was 1538 people from 14 to 28 years old (610 young men and 928 young women). The respondents were grouped into four age groups in accordance with the fundamentals of cultural and historical psychology and current trends in psychological research: adolescence (14 years — 304 people), early youth (15—18 years — 500 people), late youth (19—23 years — 381 people), the emergence of adulthood (24—28 years — 383 people) [3].

Invitations to the study were sent through educational organizations in Russia of various levels of education. The invitation contained a link to the study, which could be completed on any personal computer, in a place convenient for the respondent. The questionnaire was compiled using the “SurveyGizmo” service.

The research was conducted using the I.S. Kon method “I in 5 years” and the J. Nutten method of unfinished sentences for determining future time perspective.

I.S. Kon’s methodology was used for identifying content and future forecasting components of the research participants. Respondents wrote essays “I in 5 years” without limits to the time and volume. A five-year time horizon allowed them both to detach from contemporary characteristics of their personality and to see the foreseeable perspective. The texts received were analyzed with the help of statistical software program package “R”: a graph was made of relationships and words which respondents used more than others, and

cluster analysis was done with the Ward method. Cluster analysis made it possible to group summaries of essay texts in each age group and subsets of words with topics preferred by respondents.

The J. Nutten method of unfinished sentences was used to identify time perspective. Respondents were to finish a suggested phrase writing about their wishes, the length of the statement did not matter. The method version was used that contained 20 phrases in the affirmative, for example, "I want...", "I hope..." and 10 phrases in the negative ("I don't want...", "I am afraid..."). Data processing was based on Nutten's recommendation about using only time categories specific to this sample. The following categories turned out to be significant for our sample: school and professional education (periods of social and biological life), professional autonomy (in the adulthood period), the open present (refers to the entire period of life — as a reference

to the wish of having certain qualities and skills (to be intelligent, know a foreign language perfectly and so on)). To ensure validity, the analysis of the received statements was implemented by five experts — psychologists and educators who have a scientific degree. Discrepancies in the interpretation of the results were discussed collectively. Statistical data processing was carried out using ANOVA analysis of variance. With the help of the conducted analysis, the age preferences of respondents in choosing time intervals were studied.

Research results

As part of the analysis of the essays on the topic "I am in 5 years", we received data on the relationships of words used by respondents when describing their own future most often (Fig.1). There were 15988 words in 1538 texts. Prepositions, proper names, numerals and words that have no meaning were removed from the analysis.

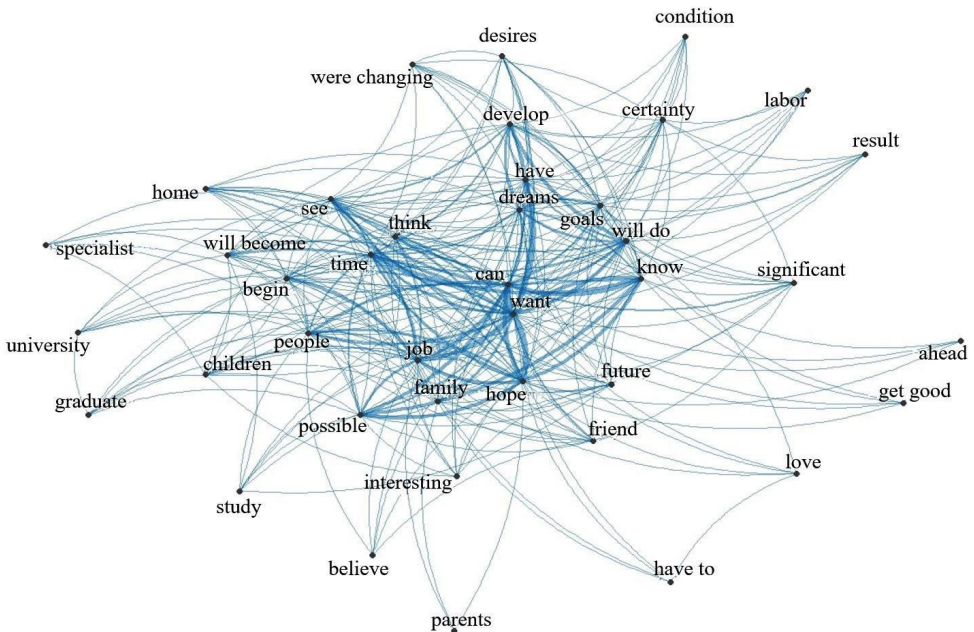


Fig. 1. The average image of the future of respondents aged 14—28, compiled on the basis of the most commonly used word relationships (n=15988)

The figure represents an average image of the future of respondents aged 14—28, compiled on the basis of the most commonly used word relationships. The graph shows that the relationships of words are nonlinear in nature, they allow us to identify semantically close words and assess the measure of their semantic proximity. In the center of the graph, many relationship lines converge to words such as “I can”, “I want”, “I hope”, “work”, “do”, “I see”, “goals”, “I know”, “maybe”, “I will be”. Accordingly, these words are most often involved in semantic relationships, with the help of which young men and women describe their idea of the future.

The significant aspects of the image of the future of 14-year-olds are the following. The cluster of the maximum size includes “desires and dreams related to the future, friends, mother, children and family, classes,” etc. For teenagers, these words are interrelated, since they fell into one cluster without being divided into topics. On the Y axis, this cluster is located below the others, respectively, it has a subordinate value. A cluster in which the words “I want” combine “opportunities, life, a good job, a good per-

son” is of interest. Further, the cluster that combines the words “I hope” and “this” carries the same scale of influence along the Y axis as the word “I want”. The last three clusters containing one word each have the minimum size. These are the words: “I will”, “my”, “years”. The cluster with the word “I will” has a big difference from the rest on the Y axis. This word connects all clusters, representing the core of the image of the future of teenagers.

The following significant aspects of the image of the future of 15—18-year-old boys and girls are revealed. The maximum size is a cluster that contains words related to university studies, family — marriage, girlfriend, children, dreams, job, interests, time, etc. Three clusters of approximately the same size are: 1) study is connected with a job, knowledge, the future, amplified by the word “very”; 2) the words “good” “life” and “you” are combined with the words “opportunities” and “person”; 3) the words happy — family, love — to everyone, and another city. A cluster of goals has appeared, in which, among other things, a happy family appears at this stage. The minimum size are two clusters containing one word each: “I hope”,

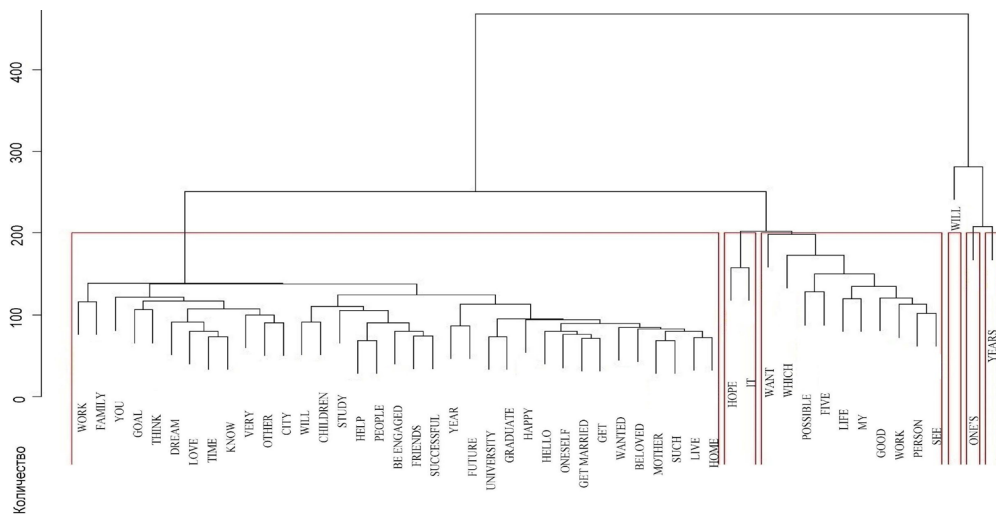


Fig. 2. A dendrogram of the use of words in the description of the future by teenagers aged 14, built using the Ward method (n — 304)

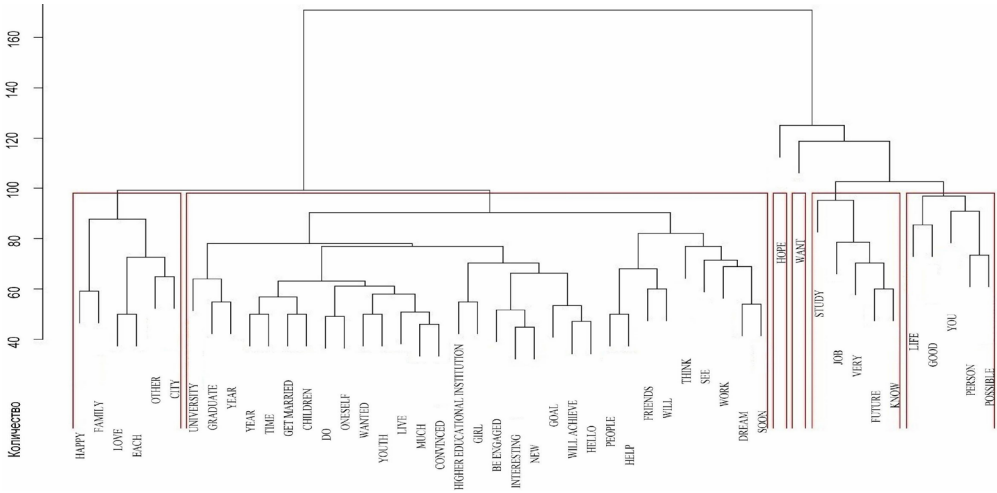


Fig. 3. A dendrogram of the use of words in the description of the future by boys/girls from 15 to 18 years old, constructed using the Ward method (n — 500)

“I want”. The cluster with the word “hope” has a big difference from the other clusters on the Y axis. This word connects the first and second clusters with the “want” cluster.

The following significant aspects of the image of the future of 19—21-year-old men and women are revealed. The maximum size is the cluster of “achievements”, where

there is a good job, family values, travel, happiness, goals, a car, etc. The next cluster combined the words “I know”, “I can”, “I think”, “I wanted” with the words “married”, “love”, “home” and “friend”. The two clusters containing one word each (“I hope” and “I want”) are of minimal size, by respondents of the age of early youth. Unlike the previ-

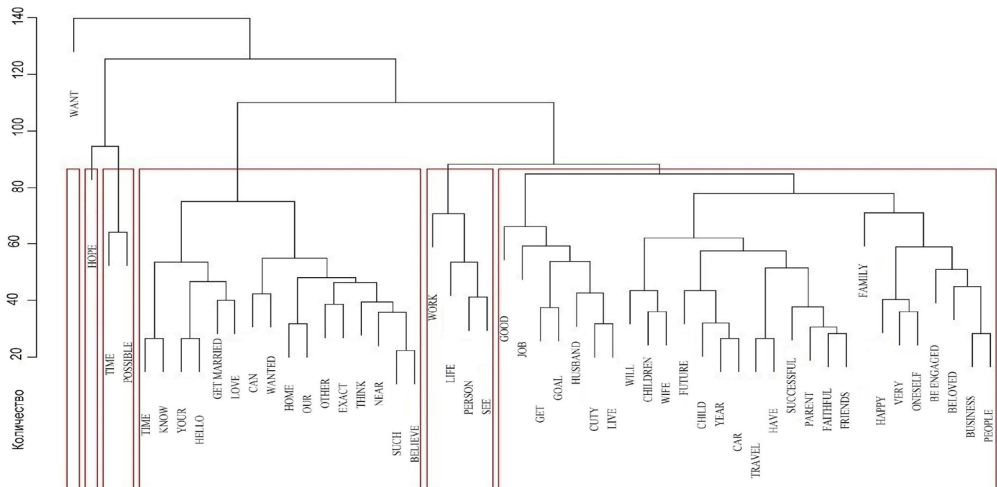


Fig. 4. A dendrogram of the use of words in the description of the future by young men/women from 19 to 23 years old, constructed using the Ward method (n — 381)

ous age group, the word “I want” is above the word “I hope” on the Y axis. This word connects all of the clusters of , representing the core of the image of the future of young men and girls of late adolescence. Next is a cluster in which work is connected with life, a person and a vision. A cluster appeared that combined the words “time” and “opportunity”. Accordingly, the characteristic feature of the image of the future in late youth is the linking of opportunities with time.

The following significant aspects of the image of the future of respondents aged 24—28 are revealed. The maximum size is a cluster with the interrelations of words: friend — to do, city and youth, childhood — great, respect, health and hello, opportunities — success, help, have, speed, wanted — to study, school, future and pleasure, etc. Next, two medium-sized clusters: 1) “life” is associated with the words “want”, “can”, “will”, “developing”, “goals”, “dreams” and “time”, 2) “cluster of hopes”, where the word “hope” is associated with the words “home”, “good”, “our”, “everything”, “I think”, “dream”, “beloved”. A cluster in which the word “I see” is associated with the words “good”, “woman” and “mother” shows the significance of gender role models. In the next two clusters, a job falls into the cen-

ter, in the verbal expression it is associated with children, happiness and interests, and in the form of a noun with family and addressing yourself in the future. This age group has no “connecting words”, and all clusters are connected in meaning and are approximately equally located along the Y axis. Then, using the technique of unfinished sentences of J. Nutten, we investigated ideas about the characteristics of time perspective in age groups from adolescence to adulthood. Descriptive statistics are shown in Table 1.

Descriptive statistics show the presence of age differences in the selected characteristics of the time perspective. Changes in the use of time characteristics depending on the age of respondents are shown in Fig. 6.

The period of “education at school” is more often used by teenagers, starting from the age of 15, they talk about it less, it is not used in the two older groups. The period of professional training is more often used by respondents in the age of early youth. “Professional autonomy” is more often mentioned in late youth, and this category becomes even more important at the age of 24—28. The time period of the “open present” is of the greatest importance for

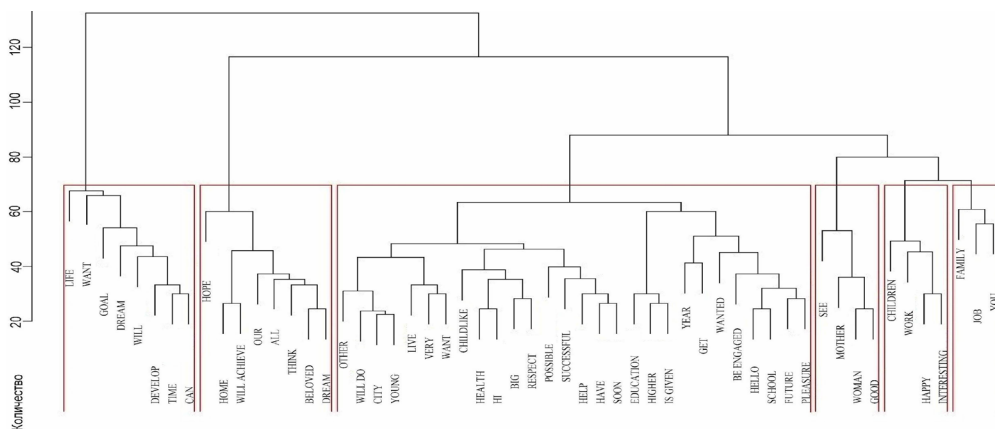


Fig. 5. A dendrogram of the use of words in the description of the future by young men/women from 24 to 28 years old, constructed using the Ward method (n — 383)

Table 1

Descriptive statistics of time perspective characteristics (n = 1538)

Age	Mean (number of used)	Standard deviation	Standard error	95% confidence interval for the mean	
				Lower bound	Upper bound
Education at school					
14	2,34	3,07	0,36	1,63	3,06
15—18	0,90	2,24	0,10	0,70	1,11
19—23	0,06	0,31	0,02	0,01	0,11
24—28	0,03	0,16	0,02	-0,01	0,06
Professional education					
14	1,11	1,79	0,21	0,69	1,53
15—18	2,93	3,57	0,17	2,60	3,25
19—23	1,89	3,07	0,25	1,40	2,38
24—28	1,54	1,62	0,18	1,17	1,90
Professional autonomy (work)					
14	2,47	4,02	0,47	1,53	3,40
15—18	2,22	2,75	0,13	1,97	2,47
19—23	2,93	2,51	0,20	2,53	3,34
24—28	3,26	3,43	0,39	2,48	4,03
Open present					
14	5,25	3,17	0,37	4,51	5,99
15—18	5,38	3,41	0,16	5,07	5,69
19—23	4,99	2,84	0,23	4,53	5,44
24—28	7,00	3,41	0,39	6,23	7,77

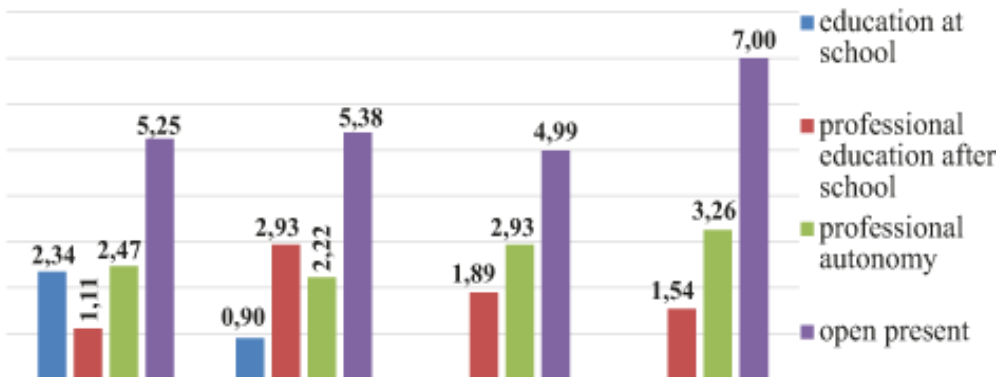


Fig. 6. Age differences in the time perspective characteristics (n = 1538)

the period of the emergence of adulthood. The analysis of variance confirmed these data (Table 2).

Unlike other age groups, adolescents consider their future using the

period of time in their social institution. ($F(3;766) = 26.021, p = 0.000$), young men/girls of early youth are more likely to use the time interval associated with professional education ($F(3;766) = 11,434,$

TTable 2

Variance analysis of differences in the use of time perspective characteristics depending on age (n = 1538)

Age		Time period			
		Education at school	Professional education	Professional autonomy (work)	Open present
14	15—18	0,000**	0,000**	0,912	0,989
	19—23	0,000**	0,316	0,672	0,945
	24—28	0,000**	0,843	0,345	0,006**
15—18	14	0,000**	0,000**	0,912	0,989
	19—23	0,000**	0,003*	0,045*	0,578
	24—28	0,002*	0,002*	0,021*	0,000**
19—23	14	0,000**	0,316	0,672	0,945
	15—18	0,000**	0,003*	0,045*	0,578
	24—28	0,999	0,860	0,858	0,000**
24—28	14	0,000**	0,843	0,345	0,006**
	15—18	0,002*	0,002*	0,021*	0,000**
	19—23	0,999	0,860	0,858	0,000**

Symbols: * $p < 0,05$, ** $p < 0,01$

$p = 0,000$). For the representatives of late youth, the most significant is the time interval associated with professional autonomy ($F(3;766) = 4,267, p = 0.005$). Respondents from the period of the emergence of adulthood more often use time categories that are not limited by time, but are characterized by the metaphor “today and always” ($F(3;766) = 6,980, p = 0.000$).

Discussion of the results

In this paper, the topic of the changing of the image of the future from adolescence to adulthood is touched upon. Earlier, N.N. Tolstykh pointed out that for young men/women aged 15—18, unlike for teenagers, the period of schooling is less important [10], and N.I. Trubnikova proved that the period of life associated with work becomes the most significant in late adolescence, [11]. Our study significantly supplemented these conclusions. Teenagers really prefer the time interval in their social institution, while young men/women aged 15-18 consider their future in the period associated with professional train-

ing, unlike other age groups. Professional autonomy is really important in youth, but for respondents aged 24—28, the time perspective includes categories that are not limited by time and are characterized by the metaphor “today and always”. At the same time, our data differs from the conclusions of A. Syrsova, according to whom the present is most significant for both adolescence and youth, and the future is more important for early adulthood [9]. According to our data, at the age of early adulthood, the choice of the type of time categories changes, and instead of periods of social and biological life, time categories are used that relate to the whole life, and not to any specific period. Our results allow us to see the changes that occur at the end of adolescence, during the transition to adulthood, which was not revealed in previous studies. At the beginning of adulthood, according to A. Syrsova, the skills of managing one’s time and choosing goals are acquired, the importance of achieving a set of tasks increases [9], as an ideal projection of oneself into the future, motivating personal

development [6]. Our analysis made it possible to specify age-related changes in the meaningful representation of the image of the semantic future.

The image of the future of 14-year-olds consists of two content clusters: the “cluster of dreams”, which contains all the fragmentary ideas about adulthood, and the “cluster of desires”, in which “I want” is associated with “opportunities” and a “good” “life”, “work” and “person”. The remaining clusters are separate connecting words. Their ideas about the future are not formed, and for them the future figuratively speaking “happens”, and the impulsivity of adolescents, highlighted by A. Syrtsova, shows not an interest in appearance with a disregard for the inner core [9], but rather a lack of understanding of their future as their own adulthood, and conscious work on discussing and shaping their future.

In the image of the future of young men/women aged 15–18, only the words “I hope” and “I want” remain binding, and the largest cluster is still a set of dreams. But in addition to it, three clearly formed separate topics appear, including: professional education, life opportunities and ideas about the family. It is important to take into account the conclusions of Brianza E., Demiryay B. about the fact that the frequency of future-oriented statements and words related to family is positively associated with life satisfaction in youth [15].

In the image of the future of young men/women aged 19-23, the words “I want” and “I hope” remain binding, at the same time the relationship of “time” and “opportunities” appears. Two clusters of approximately equal size appear: the “cluster of opportunities” and the “cluster of achievements”. Previous studies have pointed to the links between economic stress, family functioning and psychological well-being [18]. The revealed changes are associated with shifts in the criteria necessary to achieve adulthood, which today depend more on maturity and compliance with norms, rather than on traditional markers such as marriage or work.

The image of the future of respondents aged 24—28 differs from the previous ones in the absence of connecting words, all topics highlighted by this age category have an equal meaning to them, and the two highlighted clusters are associated with a job. Previously, Gunawan W., Creed P.A., Glendon A.I. pointed out that career planning, productivity and satisfaction are associated with assumptions about the possibility of finding a job in the future [22], and the opportunity to find a job is associated with professional confidence [21]. According to our data, “job” is connected with “family” and oneself in the future, as well as with “children”, “happiness” and “interests”. But in addition to topics where life plans are set through a vision of employment, the image of the future of respondents of this age includes ideas about “goals”, “hopes”, “gender roles” and a “future value”.

In accordance with this, the question of the sequence of changes in the idea of the future as an understanding of growing up becomes important. The aim of this study was to establish the nature of age-related changes in the image of one’s own future in the modern social and cultural situation in the period from adolescence to adulthood.

Main results of the study

As a result of the study, the following conclusions were made about changes in perceptions of the future from adolescence to adulthood:

1. Teenagers consider their future using, unlike other age groups, a period of time within their social institution — “schooling”. In the ideas of adolescents about the future, there are no clearly defined future directions characteristic of older age groups.

2. In early youth, the future is considered within the period of professional education. In the image of the future, there is a focus on three topics: professional education, life opportunities and ideas about the family.

3. The period of life associated with professional autonomy and a job becomes

more significant at the age of late youth. One of the distinctive features of the ideas about the future at the age of late youth is the linking of their capabilities with time.

4. At the age of the emergence of adulthood, the categories that are not limited in time, characterized by the metaphor “today and always”, become the most significant in the time perspective. Meaning-forming in the image of the future for them is employment related to children, family, happiness, interests and themselves.

References

- Andreeva A.D., Begunova L.A., Lisichkina A.G. Osobennosti vnutrennej pozicii vzroslogo u sovremennyh uchashhihsja rannego junosheskogo vozrasta [Features of the Internal Position of an Adult in Modern Students of Early Adolescence]. *Psikhologicheskaya nauka i obrazovanie = Psychological Science and Education*, 2023. Vol. 28, no. 2, pp. 58—69. DOI:10.17759/pse.2023280205 (In Russ.).
- Belogaj K.N., Bugrova N.A. Formirovanie obraza budushhego v period junosti kak problema professional'nogo obrazovanija [Formation of the image of the future in the period of youth as a problem of vocational education]. *Vestnik Kemerovskogo gosudarstvennogo universiteta kul'tury i iskusstv = Bulletin of the Kemerovo State University of Culture and Arts*, 2018, no. 43, pp. 205—215. (In Russ.).
- Vasil'eva N.P. Dinamika junosheskogo vozrasta [The dynamics of adolescence]. Krasnoyarsk: Izdatel'stvo SFU, Federal'noe agentstvo po obrazovaniju, Sibirskij feder. un-t, In-t estestvenny'x i gumanitarny'x nauk = SFU Publ., Federal Agency for Education, Siberian Federal University. un-t, Institute of Natural Sciences and Humanities, 2007. 102 p. (In Russ.).
- Isaeva O.M., Akimova A.Ju., Volkova E.N. Faktory psihologicheskogo blagopoluchija rossijskoj molodezhi [Factors of psychological well-being of Russian youth]. *Psikhologicheskaja nauka i obrazovanie = Psychological science and education*, 2022. Vol. 27, no. 4, pp. 24—35. DOI:10.17759/pse.2022270403 (In Russ.).
- Egorenko T.A. Psihologicheskaja pomoshh' v professional'nom samoopredelenii lichnosti na jetape doprofessional'nogo razvitiya: opyt zarubezhnyh stran [Psychological assistance in professional self-determination of a person at the stage of pre-professional development: the experience of foreign countries]. *Sovremennaja zarubezhnaja psikhologija = Journal of Modern Foreign Psychology*, 2022. Vol. 11, no. 3, pp. 61—70. DOI:10.17759/jmfp.20221103006 (In Russ.).
- Kostenko N.B. Osobennosti obraza budushhego u social'no dezadaptirovannyh prodrostkov [Features of the image of the future in socially maladapted adolescents. Ph. D. (Psychology) diss.]. Barnaul, 2006. (In Russ.).
- Levin K. Teorija polja v social'nyh naukah [Field theory in social sciences]. St. Petersburg: Publ. Rech', 2000. 368 p. (In Russ.).
- Polivanova K.N. Detstvo v menjajushhemsja mire [Childhood in a changing world]. *Sovremennaja zarubezhnaja psikhologija = Modern foreign psychology*, 2016, no. 2, pp. 5—10. DOI:10.17759/jmfp.2016050201 (In Russ.).
- Syrcova A. Vozrastnaja dinamika vremenoj perspektivy lichnosti [Age dynamics of the time perspective of personality. Ph. D. (Psychology) Thesis]. Moscow, 2008. 24 p. (In Russ.).
- Tolstyh N.N. Sovremennoe vzroslenie [Modern adulthood]. *Konsul'tativnaja psikhologija i psihoterapija = Consultative psychology and psychotherapy*, 2015. Vol. 23, no. 4, pp. 7—24. DOI:10.17759/cpp.2015230402 (In Russ.).
- Trubnikova N.I. Vremennaja perspektiva kak vazhnejshij komponent zhiznennogo samoopredelenija [Time perspective as the most important component of life self-determination]. *Mir nauki, kul'tury, obrazovanija = The world of science, culture, education*, 2010. Vol. 24, no. 5, pp. 137—138. (In Russ.).
- Shilova N.P. Vzaimosvjaz' predstavlenij o budushhem i obrazovatel'nyh rezul'tatov v junosheskom vozraste [Interrelation of ideas about the future and educational results in adolescence]. *Rossijskij psikhologicheskij zhurnal = Russian Psychological Journal*, 2022. Vol. 19, no. 1, pp. 76—88. DOI:10.21702/rpj.2022.1.6 (In Russ.).
- Shilova N.P., Vladyko A.K. Sovremennyj kul'turnyj kontekst predstavlenij o budushhem v junosheskom vozraste [The modern cultural context of ideas about the future in adolescence]. *Sibirskij psikhologicheskij zhurnal = Siberian Psychological Journal*, 2022, no. 86, pp. 103—118. DOI:10.17223/17267080/86/6 (In Russ.).
- Baikeli R., Li D., Zhu L., Wang Z. The relationship between time perspective and meaning in life across

- different age stages in adulthood. *Personality and Individual Differences*, 2021. 174 p. DOI:10.1016/j.paid.2021.110668
15. Brianza E., Demiray B. Future Time Perspective and Real-Life Utterances. About the Future in Young and Older Adults. *GeroPsych*, 2019. Vol. 32, no. 4, pp. 161—173. DOI:10.1024/1662-9647/a000216
 16. Kim J., Hong H., Lee J., Hyun M.H. Effects of time perspective and self-control on procrastination and Internet addiction. *Journal of Behavioral Addictions*, 2017. Vol. 6, no. 2, pp. 229—236. DOI:10.1556/2006.6.2017.017
 17. Fonseca G., da Silva J.T., Paixa'o M.P., Crespo C., Relvas A.P. Future Hopes and Fears of Portuguese Emerging Adults in Macroeconomic Hard Times: The Role of Economic Strain and Family Functioning. *Emerging Adulthood*, 2020. Vol. 8(6), pp. 476—484 DOI:10.1177/2167696819874956journals.sagepub.com/home/ea
 18. Fonseca G., Silva J.T., Paixa M.P., Crespo C., Relvas A.P. Future Hopes and Fears of Portuguese Emerging Adults in Macroeconomic Hard Times: The Role of Economic Strain and Family Functioning. *Emerging Adulthood*, 2020. Vol. 8, no. 6, pp. 476—484. DOI:10.1177/2167696819874956
 19. Wang H., Geng J., Liu K., We X., Wang J., Lei L. Future Time Perspective and Self-Control Mediate the Links between Parental Autonomy Support and Adolescents' Digital Citizenship Behavior. *Youth & Society*, 2022. Vol. 54, no. 6, pp. 1077—1096. DOI:10.1177/0044118X211020778
 20. Kooij D.T., Kanfer R., Betts M., Rudolph C.W. Future time perspective: A systematic review and meta-analysis. *Journal of Applied Psychology*, 2018. Vol. 103, no. 8, pp. 867—893. DOI:10.1037/apl0000306
 21. Gunawan W., Creed P.A., Glendon A.I. Development and Initial Validation of a Perceived Future Employability Scale for Young Adults. *Journal of Career Assessment*, 2019. Vol. 27, no. 4, pp. 610—627. DOI:10.1177/1069072718788645-5
 22. Gunawan W., Creed P.A., Glendon A.I. Young adults' perceived future employability: antecedents and consequences. *International Journal for Educational and Vocational Guidance*, 2021. Vol. 21, pp. 101—122. DOI:10.1007/s10775-020-09430-7
 23. Jiang T., Gore J.S. The relationship between autonomous motivation and goal pursuit: A cross-cultural perspective. *Asian Journal of Social Psychology*, 2016. Vol. 19, no. 2, pp. 101—111. DOI:10.1111/ajsp.12115
 24. Parola A., Marcionetti J. Youth unemployment and health outcomes: the moderation role of the future time perspective. *International Journal for Educational and Vocational Guidance*, 2022. Vol. 22, pp. 327—345. DOI:10.1007/s10775-021-09488-x
 25. Przepiorka A., Blachnio A., Cudo A. The role of depression, personality, and future time perspective in internet addiction in adolescents and emerging adults. *Psychiatry Research*, 2019. Vol. 272, pp. 340—348. DOI:10.1016/j.psychres.2018.12.086
 26. Janeiro I.N., Duarte A.M., Araujo A.M., Gomes A.I. Time perspective, approaches to learning, and academic achievement in secondary students // *Learning & Individual Differences*. 2017. Vol. 55. pp. 61—68. DOI:10.1016/j.lindif.2017.03.007

Литература

1. Андреева А.Д., Бегунова Л.А., Лисичкина А.Г. Особенности внутренней позиции взрослого у современных учащихся раннего юношеского возраста // *Психологическая наука и образование*. 2023. Т. 28. № 2. С. 58—69. DOI:10.17759/pse.2023280205
2. Белогай К.Н., Бугрова Н.А. Формирование образа будущего в период юности как проблема профессионального образования // *Вестник Кемеровского государственного университета культуры и искусств*. 2018. № 43. С. 205—215.
3. Васильева Н.П. Динамика юношеского возраста. Красноярск: Издательство СФУ, Федеральное агентство по образованию, Сибирский федер. ун-т, Ин-т естественных и гуманитарных наук, 2007. 102 с.
4. Егоренко Т.А. Психологическая помощь в профессиональном самоопределении личности на этапе допрофессионального развития: опыт зарубежных стран [Электронный ресурс] / А.В. Литвинова, Т.Н. Березина, А.В. Кокурин, В.И. Екимова // *Современная зарубежная психология*. 2022. Т. 11. № 3. С. 61—70. DOI:10.17759/jmfp.2022110306
5. Исаева О.М., Акимова А.Ю., Волкова Е.Н. Факторы психологического благополучия российской молодежи // *Психологическая наука и образование*. 2022. Том 27. № 4. С. 24—35. DOI:10.17759/pse.2022270403
6. Костенко Н.Б. Особенности образа будущего у социально дезадаптированных подростков: дисс. ... канд. психол. наук. Барнаул, 2006.
7. Левин К. Теория поля в социальных науках. СПб.: Речь, 2000. 368 с.
8. Поливанова К.Н. Детство в меняющемся мире // *Современная зарубежная психология*. 2016. № 2. С. 5—10. DOI:10.17759/jmfp.2016050201
9. Сырцова А. Возрастная динамика временной перспективы личности: автореф. дисс. ... канд. психол. наук. М., 2008. 24 с.
10. Толстых Н.Н. Современное взросление // *Консультативная психология и психотерапия*. 2015. Т. 23. № 4. С. 7—24. DOI:10.17759/cpp.2015230402
11. Трубникова Н.И. Временная перспектива как важнейший компонент жизненного

- самоопределения // Мир науки, культуры, образования. 2010. Т. 24. № 5. С. 137—138.
12. Шилова Н.П. Взаимосвязь представлений о будущем и образовательных результатов в юношеском возрасте // Российский психологический журнал. 2022. Т. 19. № 1. С. 76—88. DOI:10.21702/rpj.2022.1.6
13. Шилова Н.П., Владыко А.К. Современный культурный контекст представлений о будущем в юношеском возрасте // Сибирский психологический журнал. 2022. № 86. С. 103—118. DOI:10.17223/17267080/86/6
14. Baikeli R., Li D., Zhu L., Wang Z. The relationship between time perspective and meaning in life across different age stages in adulthood // Personality and Individual Differences. 2021. 174 p. DOI:10.1016/j.paid.2021.110668
15. Brianza E., Demiray B. Future Time Perspective and Real-Life Utterances. About the Future in Young and Older Adults // GeroPsych. 2019. Vol. 32. № 4. P. 161—173. DOI:10.1024/1662-9647/a000216
16. Effects of time perspective and self-control on procrastination and Internet addiction / Kim J., Hong H., Lee J., Hyun M.H. // Journal of Behavioral Addictions. 2017. Vol. 6. № 2. P. 229—236. DOI:10.1556/2006.6.2017.017
17. Fonseca G., da Silva J.T., Paixaõ M.P., Crespo C., Relvas A.P. Future Hopes and Fears of Portuguese Emerging Adults in Macroeconomic Hard Times: The Role of Economic Strain and Family Functioning // Emerging Adulthood. 2020. Vol. 8(6). P. 476—484. DOI:10.1177/2167696819874956journals.sagepub.com/home/ea
18. Future Hopes and Fears of Portuguese Emerging Adults in Macroeconomic Hard Times: The Role of Economic Strain and Family Functioning / Fonseca G., Silva J.T., Paixa M.P., Crespo C., Relvas A.P. // Emerging Adulthood. 2020. Vol. 8. № 6. P. 476—484. DOI:10.1177/2167696819874956
19. Future Time Perspective and Self-Control Mediate the Links between Parental Autonomy Support and Adolescents' Digital Citizenship Behavior / Wang H., Geng J., Liu K., We X., Wang J., Lei L. // Youth & Society. 2022. Vol. 54. № 6. P. 1077—1096. DOI:10.1177/0044118X211020778
20. Future time perspective: A systematic review and meta-analysis / Kooij D.T., Kanfer R., Betts M., Rudolph C.W. // Journal of Applied Psychology. 2018. Vol. 103. № 8. P. 867—893. DOI:10.1037/apl0000306
21. Gunawan W., Creed P.A., Glendon A.I. Development and Initial Validation of a Perceived Future Employability Scale for Young Adults // Journal of Career Assessment. 2019. Vol. 27. № 4. P. 610—627. DOI:10.1177/1069072718788645-5
22. Gunawan W., Creed P.A., Glendon A.I. Young adults' perceived future employability: antecedents and consequences // International Journal for Educational and Vocational Guidance. 2021. Vol. 21. P. 101—122. DOI:10.1007/s10775-020-09430-7
23. Jiang T., Gore J.S. The relationship between autonomous motivation and goal pursuit: A cross-cultural perspective // Asian Journal of Social Psychology. 2016. Vol. 19. № 2. P. 101—111. DOI:10.1111/ajsp.12115
24. Parola A., Marconetti J. Youth unemployment and health outcomes: the moderation role of the future time perspective // International Journal for Educational and Vocational Guidance. 2022. Vol. 22. P. 327—345. DOI:10.1007/s10775-021-09488-x
25. Przepiorka A., Blachnio A., Cudo A. The role of depression, personality, and future time perspective in internet addiction in adolescents and emerging adults // Psychiatry Research. 2019. Vol. 272. P. 340—348. DOI:10.1016/j.psychres.2018.12.086
26. Time perspective, approaches to learning, and academic achievement in secondary students / Janeiro I.N., Duarte A.M., Araujo A.M., Gomes A.I. // Learning & Individual Differences. 2017. Vol. 55. P. 61—68. DOI:10.1016/j.lindif.2017.03.007

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High School Students' Parental Involvement and Academic Performance During the COVID-19 Movement Control Order

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Parents and children have been affected by the COVID-19 Movement Control Order (MCO). Parental involvement is often linked to children's academic performance. This study first examined the link between parental involvement and children's academic performance during the MCO. Next, it examined the differences in academic performance before and during the MCO. Malaysian secondary school students ($N=130$, 61,6% female) aged 16—17 ($M=16,42$, $SD=0,4967$) responded to questions about their parents' involvement from before and during the MCO and completed the Inventory of Parental Influence. Exam grades from before and after the MCO were also collected. The results revealed a low to moderate positive correlation ($r=0,291$, $p<0,05$) between parental involvement in three areas (discussions, home care, and communication) and academic performance. During the MCO, students' perception of parental involvement at home increased, $t(129)=5,82$, $p<0,05$). However, there was also a significant decrease in students' academic performance during the MCO when compared to before the MCO, $t(123)=2,058$, $p<0,05$. Implications and future research recommendations are suggested.

Keywords: academic achievement; academic performance; COVID-19; learning; Movement Control Order; parental involvement; secondary school students.

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Родительское участие и академическая успеваемость старшеклассников во время действия приказа о контроле за перемещением граждан в период COVID-19

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На родителей и детей школьного возраста повлиял приказ о контроле за передвижением граждан (МСО), введенный в связи с пандемией COVID-19. Родительское участие часто связано с успеваемостью и достижениями детей. Первой целью этого исследования было исследование связи между родительским участием и успеваемостью детей в школе во время действия МСО. Вторая цель заключалась в том, чтобы изучить различия в академической успеваемости до и после МСО. В рамках исследования учащиеся средних школ ($N=130$, 61,6% женского пола) в возрасте 16—17 лет ($M=16,42$, $SD=0,4967$) отвечали на вопросы о родительском участии до и во время действия МСО и заполняли перечень родительского влияния. Также были собраны оценки студентов за экзамены до и после МСО. Результаты выявили низкую или умеренную положительную корреляцию ($r=0,291$, $p<0,05$) между родительским участием в трех областях (дискуссии, домашний уход и общение) и успеваемостью. Во время действия МСО восприятие учащимися родительского участия дома возросло $t(129)=5,82$, $p<0,05$). Исследование, однако, также выявило значительную разницу в успеваемости студентов по сравнению с результатами после МСО, что указывает на общее снижение результатов экзаменов по пяти предметам по сравнению с результатами до МСО. Предлагаются выводы и рекомендации для дальнейших исследований.

Ключевые слова: академические достижения; академическая успеваемость; COVID-19; обучение; приказ о контроле за передвижением граждан; родительское участие; учащиеся средней школы.

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Introduction

Malaysia's Movement Control Order (MCO) has had a significant impact on society, particularly on working parents and school-aged children [1; 2; 3; 4]. This is because the employment and education sectors were prohibited from meeting face-to-face and were instead required to work and study from home. The difficulties encountered by students who must familiarize themselves with the online learning environment at home will likely have an impact on their academic achievement. Parental involvement is frequently linked to children's academic performance and achievement [5; 6; 7]. Particularly, parents' expectations seem to have the strongest relationship with achievement. However, this relationship varies for different groups and not all kinds of involvement translates into achievement. Meanwhile, society is aware that when parents and their children are not permitted to work or attend school, the role of parents is critical in holding their children accountable. The family is an important factor in influencing a child's life since children rely on their parents to meet their needs [8]. A conducive home learning environment, favorable support, and parental involvement are critical for children's academic achievement outcomes [5; 6; 7]. Given this, parents' inability to provide adequate support and engagement in their children's learning during the MCO might be a major factor contributing to poorer academic outcomes for children. As a result, children may perceive online learning at home as a burden, discouraging them from learning diligently.

Many secondary school students were not accustomed to online learning at home. However, it became a new norm that emerged unexpectedly and abruptly due to the circumstance of the pandemic. The home learning environment can influence student learning performance and,

consequently, students may experience added academic pressure. According to Abdul Aziz et al. [9], some of the factors that contributed to students experiencing academic pressure at home during the MCO were: difficulty focusing on learning and having time management issues due to the change in regularly structured schedules previously provided by schools. This may be further exacerbated by home-based environmental disruption such as when students are required to take on additional responsibilities such as assisting their parents with household chores.

Children's motivation to learn is greatly influenced by their home learning environment, particularly parental involvement and support. According to Seng et al. [10], the impact of parental involvement on children's academics should be emphasized to support their academic achievement. Parental involvement can be divided into two categories: 1) involvement in communication with children and 2) interest in assisting children with homework [10]. Both types of parental involvement tend to significantly contribute to academic achievement. Kasi et al.'s [11] study provides further support that parental responsibilities and roles influence children's academic achievement, particularly in online learning.

As a result, some students have found it difficult to adjust to the "new normal," as they have faced the difficulties of being forced to learn at home, sometimes without their parents' attention, support, and motivation. According to Novianti and Garzia [4], students struggle to understand assignments and learning materials provided without teacher guidance. Furthermore, their study discovered that during the COVID-19 pandemic, while most parents were involved in their children's academic learning, some parents faced challenges as they were not prepared to

facilitate their children's academic learning. This is also supported by the findings of Garbe et al. [12] who discuss the experience and difficulty of parents managing their children's learning activities during the COVID-19 pandemic. Among the difficulties experienced by parents, according to the study's findings, were a lack of personal responsibility, low motivation for the importance of children's learning, and lack of access to basic facilities to support their children's learning. Anderson [13] claims that the COVID-19 pandemic's impact on the education sector has increased the likelihood of students failing to learn. This is due to a lack of parental support for online learning's success. According to Brown et al. [14], factors contributing to the lack of parental involvement in children's learning during the pandemic include loss of employment, stress, mental fatigue, difficulty managing a child's educational matters, an imprudent division of work, and having to work from home. Hence, it is important to investigate the relationship between parental involvement and academic performance among secondary school students during the COVID-19 pandemic. It was hypothesized that there would be a significant relationship between parental involvement and student academic performance during the Movement Control Order (MCO). The current study also looked at how students' academic performance differed from before and after the MCO. It was hypothesized that there would be a significant difference between student academic performance from before and during the MCO, with achievement predicted to be lower during the MCO than before.

Materials and Methods

Data Collection

The study was approved by Universiti Malaysia Sabah (UMS): Jawatankuasa Etika Penyelidikan Perubatan UMS (UMS Medical Research Ethics Committee) [Authorization number JKEtika 4/20 (4)]. The researchers obtained formal written permission from the schools involved to conduct the study. Individual students were provided with an informed consent letter which indicated that submission of the survey indicated consent. The data was gathered from April 2020 until June 2020 using

an online survey method. Additionally, student exam grades from prior to the MCO (before April 2020) were also collected after the fact to be used for comparison.

Research Instruments

Parental Involvement. A researcher created scale was first administered to measure students' self-report of their perception of parental involvement before and after the MCO. This was a simple two item scale asking participants to answer the following two questions.

1. What was the level of your parents' involvement in your life BEFORE the COVID-19 Movement Control Order?

2. What is the level of your parents' involvement in your life CURRENTLY DURING the COVID-19 Movement Control Order?

Participants answered on a 5-point Likert-like scale (1=very low, 2=low, 3=moderate, 4=high, 5=very high).

The Inventory of Parental Influence.

The Inventory of Parental Influence [15] is a five-factor scale that assesses children's perceptions of parent-child interactions regarding school-related issues. Pressure from parents, intellectual development pressure, psychological support, monitoring, and time management are among the factors that contribute to intellectual development outside of the classroom that this scale measures. This tool is divided into three parts: parent-child discussions, home care, and parent-child communication. There are nine items for home discussion, eight items for home care, and thirteen items for communication. Each item is scored on a Likert-like scale rating of 1 (strongly disagree), 2 (disagree), 3 (moderate), 4 (agree), and 5 (strongly agree). A sample item is "My (mother/father) is never pleased with my marks." Cronbach Alpha, which is used to evaluate reliability, is 0.70, indicating respectable reliability. Parental involvement at home in the three aspects is measured based on the children's perspectives.

Student Learning Performance. Student learning performance in this study refers to research participants' exam performance. The examination scores for the five core subjects

taken by students (namely Malaysian language, English, Mathematics, Science, and History) were used to evaluate student academic performance. The examination scores for these five subjects were compared from before the MCO (before April 2020) and during the MCO (April 2020 to June 2020).

Participants

The participants were secondary school students from the Kota Belud District aged 16 to 17 years old. There were 180 responses, with 130 students agreeing to participate in the study. Participants' gender distribution [mean (M)=1.637, standard deviation (SD)=0.4828] included a total of 50 (38.4%) males and 80 (61.6%) females. In terms of participants' ages, 75 (57.7%) were 16 years old and 55 (42.3%) were 17 years old (M=16.42, SD=0.4967). As for race, 80 (61%) participants self-identified as Bumiputera participants, 45 (35%) as Chinese, and 5 (4%) as South Indian.

Results

Parental involvement before and during the Movement Control Order (MCO)

Table 1 shows the percentage of how students responded to the questions about parental involvement. A paired samples *t*-test was run to compare the differences in children's perception of their parents' involvement from before the MCO and during the MCO. It indicates that there was a statistically significant increase in perceived parental involvement at home during the MCO. On average, students perceived their parents' involvement as less (M=3.42, SD=1.11) before the MCO than during the MCO (M=3.63,

SD=1.07). This mean difference, .21, 95% CI [-.28, -.14] was statistically significant, *t*(129)=5.82, *p*<.05).

Student academic performance before and during the MCO

The exam grades for five core subjects (Malaysian language, English, Mathematics, Science, and History) taken before and during the MCO were used to determine the students' level of academic performance. There were four grade levels: A, B, C, and D. These letter grades were recoded in SPSS as follows: A=1, B=2, C=3, D=4. The study's findings revealed an average drop in all core subject grades during the MCO (see Table 2).

Relationship between parental involvement and academic performance during the MCO

To investigate the relationship between parental involvement and academic performance, Pearson's correlational analysis was used. Parental involvement consisting of three components—parent-child discussion, home care, and parent-child communication—were analyzed. Table 3 displays the Pearson correlation analysis results used to determine the relationship between home conversations, care, and communication and students' academic performance during the MCO implementation. The findings revealed a statistically significant relationship between parent-child discussion (*r*=0.312, *p*<0.05), home care (*r*=0.243, *p*<0.05), and parent-child communication (*r*=0.288, *p*<0.05) and student academic performance during the MCO.

Table 1

Parental Involvement from before and during the MCO (N=130)

Level	Before MCO		During MCO	
	Frequency	Percentage	Frequency	Percentage
1. Very low	10	7.7	5	3.84
2. Low	12	9.2	17	13
3. Moderate	42	32.3	26	20.0
4. High	45	34.6	55	42.30
5. Very high	21	16.2	27	20.76
Total	130	100	130	100

Table 2

Students' Exam Grades from before and during the MCO (N=130)

Subject	Before MCO		During MCO	
	Frequency	Percentage	Frequency	Percentage
1. Malaysian language	A: 27 B: 42 C: 30 D: 31	20.76 32.30 23.07 23.84	A: 20 B: 39 C: 37 D: 34	15.38 30.0 28.46 26.15
2. English	A: 15 B: 31 C: 46 D: 38	11.5 23.8 35.3 29.2	A: 10 B: 25 C: 48 D: 47	7.69 19.23 36.92 36.15
3. Mathematics	A: 25 B: 45 C: 40 D: 20	19.2 34.5 30.76 15.38	A: 19 B: 40 C: 46 D: 25	14.6 30.76 35.38 19.23
4. Science	A: 20 B: 30 C: 44 D: 36	15.38 23.07 33.86 27.69	A: 18 B: 25 C: 50 D: 37	13.8 42.30 38.46 28.46
5. History	A: 31 B: 23 C: 44 D: 42	23.8 17.69 33.86 32.30	A: 25 B: 20 C: 39 D: 46	19.2 15.38 30.0 35.38
Total	130	100	130	100

Table 3

Correlations of Parental Involvement and Academic Performance (N=130)

	Academic Performance
Parent-child discussion	.312*
Home care	.243*
Parent-child communication	.288*
Overall Involvement	.291*

Note: * $p < .05$ (2-Tailed).

The findings revealed a statistically significant low to moderate positive relationship ($r=0.291, p<0.05$) between parental involvement in all three aspects (parent-child discussion, home care, and parent-child communication) and the current academic performance during MCO. This helped to explain why students with a high level of parental involvement during the MCO performed better academically than those with lower parental involvement. As a result, hypothesis 1 (H¹) was accepted, indicating that there was a significant relationship between pa-

rental involvement and student academic performance during the MCO.

Differences in student academic performance before and during the MCO

According to the findings, there was a difference in students' academic performance before and during the MCO. Overall, the results of the five core subjects differed significantly from before and during the MCO, $t(123)=2.058, p<0.05$. In the five subjects (Malaysian language, English, Mathematics, Science, and History), the number of participants who received higher grades from before the MCO decreased and the number participants to received lower grades increased (refer to Table 2) during the MCO. As a result, hypothesis 2 (H²) was accepted, in which, there was a significant difference between academic performance before as compared to during the MCO.

Discussion

Parents play an important role in their children's success, especially in academics. Chil-

dren's academic success is dependent not only on how they learn in the classroom but also on their relationship with home-based environments such as parents' attention and their ability to help children carry out homework activities, especially during this highly challenging COVID-19 pandemic era [16]. As a result, during the MCO, parental involvement appeared to indirectly influence their children's academic performance. The findings revealed a statistically significant relationship between parental involvement in three aspects of home life (namely parent-child discussions; home care; and parent-child communication) when it came to academic performance among secondary school students during the implementation of the MCO. The findings are consistent with those of Gosman et al. [17] who discovered a positive relationship between home-based involvement in high school students in the form of communication, learning provision, and a supportive environment and their academic performance. While the results of the current study were statistically significant, the relationship was rather weak: parental involvement influenced less than 9% of the variation in academic performance. Therefore, caution must be taken when interpreting these results as other factors may have been involved. Parental involvement in adolescents' learning activities at home may be related to parents having more spare time at home to be involved in their children's learning during the MCO, but there may be other factors such as parental stress and more that might affect their involvement that were not addressed in this study. Parents' positive attitudes toward participating in their children's academic performance, according to Hassan et al. [18], were an important predictor of children's future learning success. In line with Hassan's [18] study, the current study's findings of a significant relationship between parental involvement and academic performance contribute to the evidence that parental involvement might contribute to improving their children's academic performance during the MCO and in future similar situations.

Furthermore, the findings showed a statistically significant decrease in student academic performance during the MCO as compared to

before. The difference indicated that the COVID-19 pandemic has likely influenced the performance of five core subject grades, with an overall average decrease in participants' exam scores. Again, while statistically significant, this relationship was also rather weak. Furthermore, since correlation does not mean causation, naturally there may have been many other factors influencing these results that were not controlled for nor measured in this study. However, these findings indicating a difference in academic performance during the pandemic are also consistent with the study conducted by Amin and Nasri [19] who examined students' perception of online learning during the COVID-19 pandemic. Despite parental involvement with their children during the MCO, some other factors, such as student interaction with teachers and limited peer involvement, technical issues, uncomfortable home learning environments, a lack of discipline in following online learning, and social isolation can all contribute to less effective online learning [19]. This unexpected COVID-19 pandemic has resulted in changes that have occurred without providing teachers, students, and parents with adequate time to prepare to learn the most effectively under these less than ideal circumstances. The disparity in academic performance for students from before and during the MCO can likely be attributed to the previously described deficiency factors.

Limitations, Implications, and Future Research Recommendations

Based on this study's findings, there are several applicable implications. Parental involvement in their children's learning at home should be encouraged and emphasized as it can likely contribute to greater academic performance. Despite parental involvement increasing during the MCO and still generally being positively associated with academic performance, high school students' academic performance in this study generally decreased during the MCO. Therefore, parental involvement should be increased during the COVID-19 pandemic (and any other similar situations) to influence the academic success of students who participate in online learning in order to combat the negative

effects of the pandemic. This study seems to indicate that parent-child discussions, home care, and parent-child communication should all be specifically emphasized as these areas appear to be important contributors to achievement.

Additional studies—including quantitative and qualitative longitudinal ones—involving many primary and secondary school students are suggested by the researchers. When it came to measuring parental involvement before and during the MCO, this study relied on the children's self-report of their self-perception of their parents' involvement from before and during. Self-report is not always reliable, especially if it relies on memory from a previous time. Furthermore, asking students to first report their perception of parental involvement before the MCO and then immediately asking them the same question but for during the MCO may have unduly influenced their responses. It would have been more ideal if parental involvement somehow could have been measured prior to the MCO. Future research should also include parents so that their involvement in children's academic achievement can be assessed through their perspectives and compared to their children's perspectives. Furthermore, although this study contributes to achievement literature by studying a rarely studied sample, given the limited scope of the data collected from a small area in Malaysia, it is highly recommended that this study be replicated and expanded in larger and more diverse samples in order to increase the generalizability. Despite academic performance being associated with parental involvement and parental involvement increasing during the pandemic

induced MCO, performance still decreased. Therefore, future studies need to examine which factors contributed to this decrease (e.g., see Amin & Nasri [19] for possible factors). Lastly, Fan and Chen [6] suggested that using GPA rather than specific subjects tends to show a stronger relationship between parental involvement and academic achievement. Therefore, given the limitation of the current study of using specific subjects due to collecting data over a short period, it is recommended that future researchers use GPA instead.

Conclusion

In conclusion, the goal of this study was to determine the relationship between parental involvement in three aspects—namely parent-child discussions; home care; and parent-child communication—and student academic performance during the MCO. Parental involvement was observed solely from the children's point of view. Consistent with previous research, academic performance continued to be positively associated during the pandemic induced MCO. However, despite parental involvement increasing during the MCO, achievement actually decreased some indicating that there were likely other factors that were not studied that affected achievement during this time period. The findings highlighted the importance of parental involvement in children's home learning. The findings of this study can benefit parents and the community in better understanding and supporting the needs of online learning for adolescents during the COVID-19 pandemic and future pandemics or situations that might require an MCO.

References

1. Amran M.S., Jamaludin K.A. The impact of unplanned school closures on adolescent behavioral health during the COVID-19 pandemic in Malaysia. *Frontiers in Public Health*, 2021. Vol. 9. DOI:10.3389/fpubh.2021.639041
2. Binti N., Vasudevan H. COVID-19: impact of Movement Control Order (MCO) on the mental health of employees and employers in Malaysia. *International Journal of Scientific Research*, 2021. Vol. 6, no. 2, pp. 31—42.
3. Manja S.A., Mohamad I., Ismail H., Yusof N.I. Working parents and emotionally parental burnout during Malaysia Movement Control Order (MCO). *European Journal of Molecular & Clinical Medicine*, 2020. Vol. 7, no. 2, pp. 4930—4953.
4. Novianti R., Garzia M. Parental engagement in children's online learning during COVID-19 pandemic. *Journal of Teaching and Learning in Elementary Education*, 2020. Vol. 3, no. 2, pp. 117—131. DOI:10.33578/jtlee.v3i2.7845
5. Boonk L., Gijssels H.J.M., Ritzen H., Brand-Gruwel S. A review of the relationship between parental involvement indicators and academic achievement. *Educational Research Review*, 2018. Vol. 24, pp. 10—30. DOI:10.1016/j.edurev.2018.02.001
6. Fan X., Chen M. Parental involvement and students' academic achievement: a meta-analysis.

- Educational Psychology Review*, 2001. Vol. 13, no. 1, pp. 1—22. DOI:10.1023/A:1009048817385
7. Topor D.R., Keane S.P., Shelton T.L., Calkins S.D. Parent involvement and student academic performance: A multiple mediational analysis. *Journal of Prevention & Intervention in the Community*, 2010. Vol. 38, no. 3, pp. 183—197. DOI:10.1080/10852352.2010.486297
8. Malik A., Ahsan D.S. Impact of perceived parental involvement on academic achievement in adolescents. *International Journal of Advancements in Research and Technology*, 2018. Vol. 7, no. 11, pp. 5—24.
9. Abdul Aziz A.A., Shafie A.A., Mohd Soffian Lee U.H., Ashaari S.R. Strategi Pembangunan aspek kesejahteraan sendiri bagi mendepani tekanan akademi semasa wabak COVID-19. *Malaysian Journal of Social Sciences and Humanities*, 2020. Vol. 5, no. 12, pp. 16—30. DOI:10.47405/mjssh.v5i12.594
10. Seng N.L., Hanafi Z., Taslikhan M. Influence of parental involvement on academic achievement. *International Journal of Advanced Education and Research*, 2016. Vol. 1, no. 4, pp. 1—4. Available at: <http://www.alleducationjournal.com/archives/2016/vol1/issue4/1-2-27>
11. Kasi Y.E.M., Suparno S., Asib A. Parents' involvement in students' academic achievement in distance learning process during the pandemic of COVID-19. *Randwick International of Education and Linguistics Science (RIELS) Journal*, 2020. Vol. 2, no. 1, pp. 76—88. DOI:10.47175/rielsj.v2i1.202
12. Garbe A., Ogurlu U., Logan N., Cook P. COVID-19 and remote learning: experiences of parents with children during the pandemic. *American Journal of Qualitative Research*, 2020. Vol. 4, no. 3, pp. 45—65. DOI:10.29333/ajqr/8471
13. Anderson T.C. Academics, achievement gap, and nutritional health: the impact of coronavirus on education. *International Journal for Professional Educators*, 2020. Vol. 87, no. 1, pp. 14—17. Available at: <https://www.proquest.com/scholarly-journals/academics-achievement-gap-nutritional-health/docview/2457214568/se-2>
14. Brown S.M., Doom J.R., Lechuga-Pena S., Watamura S.E., Koppels T. Stress and parenting during global COVID-19 pandemic. *Child Abuse and Neglect*, 2020. Vol. 110, no. 2, pp. 2—14. DOI:10.1016/j.chiabu.2020.104699
15. Campbell J.R. Developing cross-cultural/cross-national instruments: using cross national methods and procedures. *International Journal of Educational Research*, 1994. Vol. 21, pp. 675—684. DOI:10.1016/0883-0355(94)90040-X
16. Hapsari S.M., Sugito Fauziah P.Y. Parents' involvement in early childhood education during the COVID-19 pandemic period. *Jurnal Pendidikan Progresif*, 2020. Vol. 10, no. 2, pp. 298—311. DOI:10.23960/pp.v10.i2.202002
17. Gosman M., Nazarudin M.N., Noordin Z. Saharin A., Saili S.R. Hubungan penglibatan ibu bapa dan peranan guru dengan pencapaian akademik pelajar sekolah. *International Research Journal of Education and Sciences (IRJES)*, 2020. Vol. 4, no. 1, pp. 1—12. Available at: <https://www.masree.info/wp-content/uploads/2020/06/7-Hubungan-Penglibatan-Ibu-Bapa-Dan-Peranan-Guru-Dengan-Pencapaian-Akademik-Pelajar-Sekolah.pdf>
18. Hassan A., Yusoff Alavi K. Pengaruh faktor kesepaduan (kefungsian keluarga) dan kemahiran keibubapaan terhadap kesejahteraan psikologi dalam kalangan ibu bapa dan anak. *Sains Humanika*, 2014. Vol. 3, no. 1, pp. 99—105. DOI:10.11113/sh.v3n1.532
19. Amin N.A.M., Nasri N.M. Kajian tinjauan persepsi murid sekolah menengah terhadap pembelajaran dalam talian semasa pandemik Covid-19. *Jurnal Dunia Pendidikan*, 2021. Vol. 3, no. 2, pp. 344—361. Available at: <http://myjms.mohe.gov.my/index.php/jdpd/article/view/14115>. (Accessed 12.01.2022).

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Psychological Well-being of Teachers of Preschool Educational Institutions in Russia

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The article presents the results of studying the features of psychological well-being of preschool educators of the Russian Federation using the PERMA-Profiler questionnaire adapted for the Russian-speaking sample by O.M. Isayeva, A.Yu. Akimova, E.N. Volkova. The study involved 2135 preschool teachers from 79 regions of 8 federal districts of the Russian Federation. The results of the study showed that teachers have a higher overall level of psychological well-being than in the main Russian sample, as well as higher values of the severity of the components of psychological well-being: “positive emotions”, “relationships” with other people, “involvement” in activities, “meaning” and “achievements”. The stratification variables associated with the psychological well-being of preschool educators are the characteristics of age, work experience in a certain position, the qualification category of the employee, marital status, the presence of children. The level of education and place of residence do not directly affect the level of psychological well-being.

Keywords: psychological well-being; factors of well-being; PERMA-Profiler; teachers of preschool educational organizations.

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Представлены результаты изучения особенностей психологического благополучия воспитателей дошкольных образовательных учреждений Российской Федерации с использованием опросника PERMA-Profilер, адаптированного для русскоязычной выборки О.М. Исаевой, А.Ю. Акимовой, Е.Н. Волковой. В исследовании приняли участие 2135 воспитателей до-

школьных образовательных учреждений из 79 регионов 8 федеральных округов Российской Федерации. Результаты работы показали, что воспитатели отличаются более высоким, чем у основной российской выборки, общим уровнем благополучия, а также более высокими значениями выраженности компонентов психологического благополучия: «позитивные эмоции», «отношения» с другими людьми, «вовлеченность» в деятельность, «смысл» и «достижения». Стратификационными переменными, связанными с психологическим благополучием воспитателей дошкольных образовательных учреждений, выступают характеристики возраста, стажа работы в определенной должности, квалификационная категория работника, семейное положение, наличие детей. Уровень образования и место жительства непосредственно не связаны с уровнем благополучия.

Ключевые слова: психологическое благополучие; факторы благополучия; PERMA-Profilер; воспитатели дошкольных образовательных учреждений.

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Introduction

The PERMA model of human psychological well-being, developed and presented by M. Seligman in his “Theory of Well-Being”, has recently attracted the attention of representatives of both academic science as well as practical work, since it skillfully describes for a person the mechanisms to achieve well-being (flourishing) as a stable state of balance, expressed in a high level of emotional, psychological and social well-being [10; 17]. The main psychological well-being components in M. Seligman’s theory are the following: positive emotions as a person’s ability to remain optimistic and look at his/her past, present and future from a positive point of view (Positive Emotion); involvement as a repeated, stable state of concentration and absorption in a particular activity (Engagement); strong trusting relationships with other people, social connections (Relationships); meaning as a set of ideas for which a person lives and works (Meaning); achievements that correlate with the ability to set realistic goals and a sense of accomplishment (Achievement). In this theory well-being is defined not only and not so much as the

achievement of pleasure, the avoidance of displeasure, or the feeling of happiness. It is associated with the experience of happiness and pleasure from life based on the completeness of a person’s self-realization in specific life conditions and circumstances, with finding a consistent synthesis between the social environment demands and the development of one’s own individuality [10; 17]. This approach allows us to consider psychological well-being as the most important resource for the effective performance of professional activities and a condition for the development of adult competence. This approach allows us to consider psychological well-being as the most important resource for the effective performance of professional activities and as a condition for the development of adult competence.

Studies of the psychological well-being of various professions representatives (e.g. higher school teachers, professional musicians, workers, hospital medical) and students of higher educational institutions have been conducted in many countries of the world: England, Greece, Korea, China, Italy, the United States of America, Russia.

Findings from these studies indicate that psychological well-being is associated with increased job performance [13], resilience to work-related stress factors [16], intrinsic motivation [12], academic achievement, emotional intelligence, lower behavioral risks, and physical health [14].

There is also a special into psychological well-being in the context of optimizing relationships between people. Empirical studies, systematic reviews and meta-analyses have shown that psychological well-being ensures people's social activity, their desire and openness to interaction, and willingness to help [9; 12; 15], which turns out to be fundamentally important in the study of teaching professions.

In the last decade, in the Russian Federation and throughout the world, there has been an increasing interest in the teachers' professional activities, in the search and study of the main determinants of the effectiveness of this activity and in identifying conditions that contribute to the educational process optimization. However, the vast majority of research in this area is focused on studying issues related to teaching activities at school. The activities and personality of teachers of preschool educational institutions (PEIs) — kindergarten teachers, heads of preschool educational institutions — less often attract the researchers' attention [5; 7; 8]. Meanwhile, the influence of a preschool teacher on a preschool child's personality development is difficult to overestimate. A kindergarten teacher is the first professional teacher in a child's life, institutionally designated by society, with whom he/she begins to interact as he/she grows up. It is crucial to emphasize that in conditions of the modern family institution destabilization and with a decrease of the parental competence level, the influence of preschool teachers on the preschool child's personality development turns out to be significant and can act as a factor contributing to the preservation and development of the children's psychological well-being.

Russian research contains isolated studies of the well-being of participants in the educational process in kindergartens, primarily teachers. So, L. Semenova and V. Semenova obtained data indicating that psychologically well-off teachers are characterized by a predominance of a democratic style of interaction with children and by the status of an achieved positive professional identity, while their less prosperous colleagues have a predominance of an authoritarian style of pedagogical communication and the status of a diffuse professional identity [7].

E. Kedyarova, N. Chernetskaya, E. Shchukina demonstrated that teachers' subjective well-being varies in different types of kindergarten educational environments; it is more pronounced in an active educational environment. It is in this type of educational environment that teachers feel more secure and work more productively; they are more positive and enjoy success in their professional activities. This allows the authors to consider an active educational environment as one of the conditions for the psychological well-being of the educational process participants in preschool educational institutions [3].

The concept of preschool education quality monitoring, introduced in the Russian Federation several years ago, shows the need to take into account the characteristics of the teachers' well-being when assessing the preschool educational environment quality. In this concept, the quality of the educational process is the quality of relationships and interactions between adults and children: "the quality of the educational process is based on the quality of relationships and interactions between adults and children, as well as children with each other. These relationships should promote the children's activity development, emotional well-being, health and safety of children" [4].

The education quality monitoring system (including the presented principles, selected indicators and assessment pro-

cedures), as well as the requirements and conditions for creating an educational environment for preschool children, appeal to the development of certain personal resources among preschool teachers, among which psychological well-being occupies a special place. A high level of preschool teachers' psychological well-being and the development of its main components will ensure the positive functioning of the individual in the profession, contribute to a person's self-realization and, most importantly, will influence the children's development, contribute to the preservation of their health and well-being.

The PERMA model of human well-being by M. Seligman that we applied allows us to consider the preschool teachers' psychological well-being as a basic personal resource for positive professional functioning. **In our study, an idea of the state of this resource is provided by answers to the following questions:** what emotions predominate among preschool teachers, do they feel lonely, how do they assess their health, how involved are they in their professional activities, what is the quality of their relationships with others, how interesting and fulfilling is their life, how educators evaluate their achievements. The research of the preschool teachers' psychological well-being allows, in our opinion, to answer the question about the feasibility of fulfilling the tasks and requirements for preschool education in the Russian Federation today, to identify barriers to the implementation of preschool education related to the teacher's personality development, and to determine the directions of their development.

The specifics of the research set-up, techniques used and the sample

This study represents part of a large research that focused on the professional activities and personal characteristics of teachers of preschool educational institutions in the Russian Federation.

The purpose of this study was to explore the preschool teachers' psychological well-being characteristics in preschool educational institutions based on the PERMA model of human well-being [17].

The study of the preschool teachers' psychological well-being in preschool educational institutions was carried out using the PERMA-Profilер questionnaire (Butler, Kern, 2016) [11], adapted for the Russian-speaking sample by O. Isaeva, A. Akimova, E. Volkova [1]. The results of the Russian version testing and evaluation demonstrated the possibility of using this measuring tool in Russian culture. The PERMA-Profilер questionnaire is similar in structure to the original version and meets the psychometric requirements of the measurement instruments. Published data on the use of the Russian-language version of the PERMA-Profilер questionnaire on a sample of 6229 people can be used as indicative norms for Russian-speaking research participants [2].

The study included an online survey and was conducted on a voluntary, free basis, anonymously. The diagnostic complex included questions about the кyызцтвyтeыэ socio-demographic characteristics (such as age, work experience, level of education, qualification category, position, marital status, parental status, place of residence).

The research results were processed using the methods of descriptive statistics, frequency analysis, and difference analysis (Mann-Whitney test, Kruskal-Wallis test). IBM SPSS Statistics 26, Jamovi 2.3.26 software products were used to process the data.

The study was conducted in 79 regions from 8 federal districts of the Russian Federation. In each region, teachers from urban and rural preschool educational institutions participated in the study. The ratio of urban and rural preschool teachers was approximately 2:1 — 1327 (62.2%) teachers worked in urban preschool educational institutions, 808 (37.8%) — in rural ones.

The study involved 2,164 people, with the vast majority of respondents (2,141 people

(98.9%)) being women. Missing values and indeterminate responses served as grounds for excluding respondents' answers from the database. The final size of the research sample was 2135 people — women aged from 18 to 74 years, with work experience from 1 to 55 years, mainly with secondary or higher education.

Results

The overall psychological well-being expressiveness among teachers of pre-school educational institutions was within the average values typical for the Russian-speaking sample (Table 1) [1; 2].

Expression levels of the components "positive emotion" (M=7.97), "relationships" (M=7.77), "engagement" (M=7.82), "meaning" (M=8.08), "achievement"(M=8.13) among preschool teachers significantly exceeds similar values among respondents from the general Russian sample.

Among additional indicators that are not directly included in the PERMA model, but allow a more complete description of the psychological well-being phenomenon, higher values compared to the general

sample were obtained on the "happiness" (M = 8.38) and "health" (M = 7.07) scales. Lower values were noted on the scales "loneliness" (M=3.27) and "negative emotion" (M=4.76), which, according to the authors of the original PERMA-Profiler questionnaire, characterize symptoms of impaired well-being.

Thus, the overall psychological well-being indicator, the PERMA model well-being components indicators, as well as additional indicators of "happiness" and "health" among teachers of preschool educational institutions are higher, and indicators of "negative emotions" and "loneliness" are lower than in the general Russian-speaking sample.

A significant amount of data accumulated on the results of studying psychological well-being using the PERMA-Profiler questionnaire suggested a dependence of the severity of well-being indicators expressiveness among preschool teachers on age, working experience in this position, level of education, marital status, and the presence or absence of children. The qualification category is significant for the

Table 1

Psychological well-being components' indicators of teachers of preschool educational institutions

Scale title	Pre-school teachers (N=2135)		Russian-speaking research participants (N=6229)		z	p	r
	M (SD)	Min/Max	M (SD)	Min/Max			
General well-being	7,98 (1,28)	0/10	7,13 (1,55)	0/10	22,59*	<0,001	0,33
Positive emotions	7,97 (1,50)	0/10	7,29 (1,80)	0/10	15,12*	<0,001	0,22
Relationships	7,77 (1,78)	0/10	7,11 (2,00)	0/10	13,67*	<0,001	0,20
Involvement	7,82 (1,46)	0/10	7,13 (1,60)	0/10	17,37*	<0,001	0,25
Sense	8,08 (1,56)	0/10	7,10 (1,90)	0/10	21,78*	<0,001	0,32
Achievements	8,13 (1,31)	0/10	7,18 (1,55)	0/10	25,43*	<0,001	0,37
Negative emotions	4,76 (1,86)	0/10	5,80 (1,87)	0/10	36,32*	<0,001	0,53
Health	7,07 (1,57)	0/10	6,70 (1,98)	0/10	31,70*	<0,001	0,46
Loneliness	3,27 (3,12)	0/10	4,53 (2,78)	0/10	47,25*	<0,001	0,67
Happiness	8,38 (1,76)	0/10	7,17 (1,52)	0/10	47,69*	<0,001	0,68

Legend: M — arithmetic mean value; SD — standard deviation; z — normalized value of the Mann-Whitney test; r — effect size index (rank biserial correlation); p — level of statistical significance; * — differences are statistically significant.

preschool teachers' professional activities assessment, so this characteristic was also considered as a stratification variable in the study. In addition, taking into account the specifics of activities in the preschool education system, we considered such an indicator as whether or not respondents have their own children. The average values of

the overall psychological well-being indicator and standard deviation for different stratification groups of respondents, as well as the results of the analysis of differences are presented in Table 2.

The data obtained demonstrate that the stratification variables associated with the overall psychological well-being indicator

Table 2

Analysis of the relationships between stratification variables and psychological well-being components (N=2135)

stratification variables	% (N)	General well-being	
		M(SD)	X ² (df), p, ε ²
Age, y.o.			X ² (df=3)=37,0*, p<0,001, ε ² =0,017
18—35	23,0 (490)	7,73 (1,42)	
36—45	30,3 (646)	8,00 (1,29)	
46—55	32,0 (683)	8,09 (1,24)	
Older than 56	14,8 (316)	8,40 (1,08)	
work experience, years			X ² (df=4)=17,10*, p=0,002, ε ² =0,008
Less than 1	9,3 (198)	7,80 (1,33)	
1—3	12,7 (272)	7,81 (1,42)	
4—10	29,4 (628)	8,03 (1,33)	
11—20	28,3 (604)	8,10 (1,22)	
More than 20	20,3 (433)	8,16 (1,22)	
Education			X ² (df=1)=0,21, p=0,647, ε ² =<0,001
General	27,1 (579)	8,06 (1,27)	
High	72,4 (1546)	8,02 (1,30)	
Other	0,5 (10)		
Qualification category			X ² (df=2)=6,34*, p=0,012, ε ² =0,005
Highest	36,2 (772)	8,13 (1,20)	
First	29,7 (635)	8,07 (1,26)	
N/A	34,1 (728)	7,87 (1,39)	
Marital status			X ² (df=1)=43,60*, p<0,001, ε ² =0,020
married	65,8 (1404)	8,17 (1,20)	
single	34,1 (729)	7,75 (1,41)	
No answer	0,1 (2)		
Children			X ² (df=1)=39,50*, p<0,001, ε ² =0,016
Have children	88,7 (1895)	8,06 (1,25)	
Don't have children	11,3 (232)	7,54 (1,51)	
Place of residence			X ² (df=1)=5,09, p=0,405, ε ² =0,002
City (Town)	62,2 (1327)	7,97 (1,28)	
Village	37,8 (808)	7,99 (1,28)	

Legend: M — arithmetic mean value; SD — standard deviation; X² — Kruskal-Wallis test; df — number of degrees of freedom; p — level of statistical significance; * — differences are statistically significant; ε² — effect size index.

of preschool teachers are such characteristics as age, working experience in this position, qualification category of the employee, marital status, and parental status. The level of education and place of residence do not directly affect the level of well-being. Therefore, differences in psychological well-being among teachers of rural and urban preschool educational institutions, as well as among teachers with different levels of education, were not considered further. The most significant variables in the context of the psychological well-being of preschool teachers were the variables of age, marital status and parental status, please refer to Tables 3—5 for the details.

Psychological well-being and age

Among study participants assigned to different age groups, the expressiveness of most

psychological well-being components varies. The exception is the indicators of the “relationship” and “happiness” scales (Table 3).

Psychological well-being indicators of preschool teachers of the age group 18—35 years old in comparison with the indicators of the general sample of Russian female youth of the same age (N = 4040), obtained in the study by E. Volkova, A. Akimova, O. Isaeva [1; 2], are presented in table. 4.

Noteworthy is the increase in psychological well-being with age: teachers of preschool educational institutions feel more prosperous with age, maintaining optimism, passion for activities, and understanding of the ideas for which a person lives and works. At the same time, strong trusting relationships with other people and social connections retain their value at all ages. The pronounced trend of growth in the over-

Table 3

Psychological well-being components’ indicators of teachers of different ages (N=2135)

Scale title	18—35 y.o.		36—45 y.o.		46—55 y.o.		Older than 55 y.o.		X ² (df),p, ε ²
	M	SD	M	SD	M	SD	M	SD	
General well-being	7,73	1,42	8,00	1,29	8,09	1,24	8,12	1,21	X ² (df=3)=46,86*; p<0,001; ε ² =0,022
Positive emotions	7,77	1,61	7,94	1,53	7,99	1,47	8,29	1,26	X ² (df=3)=18,27*; p<0,001; ε ² =0,009
Relationships	7,69	1,78	7,77	1,83	7,73	1,78	8,00	1,64	X ² (df=3)=6,40; p=0,094; ε ² =0,003
Involvement	7,35	1,51	7,72	1,44	8,01	1,40	8,34	1,30	X ² (df=3)=112,32*; p<0,001; ε ² =0,053
Sense	7,64	1,73	8,06	1,54	8,18	1,48	8,60	1,26	X ² (df=3)=69,32*; p<0,001; ε ² =0,032
Achievements	7,70	1,46	8,09	1,30	8,27	1,18	8,60	1,15	X ² (df=3)=95,19*; p<0,001; ε ² =0,045
Negative emotions	5,15	1,81	4,79	1,90	4,65	1,77	4,36	1,96	X ² (df=3)=32,43**; p<0,001; ε ² =0,015
Health	6,82	1,70	7,11	1,54	7,51	1,42	7,07	1,57	X ² (df=3)=18,10*; p<0,001; ε ² =0,008
Loneliness	3,75	3,13	3,18	3,12	3,10	3,03	3,08	3,24	X ² (df=3)=17,44*; p<0,001; ε ² =0,008
Happiness	8,24	1,91	8,41	1,77	8,37	1,74	8,57	1,51	X ² (df=3)=3,20; p=0,362; ε ² =0,002

Legend: M — arithmetic mean value; SD — standard deviation; X² — Kruskal-Wallis test; df — number of degrees of freedom; p — level of statistical significance; * — differences are statistically significant; ε² — effect size index.

Table 4

**Psychological well-being indicators of teachers aged 18—35 years
 and Russian youth of the same age**

Scale title	Pre-school teachers (N=2135)		Russian youth (women) (N=4040)		z	p	r
	M	SD	M	SD			
General well-being	7,67	1,41	7,22	1,46	11,84*	<0,001	0,28
Positive emotions	7,77	1,61	7,40	1,71	9,26*	<0,001	0,24
Relationships	7,69	1,78	7,24	1,94	10,18*	<0,001	0,26
Involvement	7,35	1,51	7,03	1,59	15,28*	<0,001	0,33
Sense	7,64	1,73	7,14	1,77	17,83*	<0,001	0,35
Achievements	7,70	1,46	7,19	1,50	22,41*	<0,001	0,42
Negative emotions	5,15	1,81	5,95	1,80	16,14*	<0,001	0,34
Health	6,82	1,70	6,61	1,91	5,06*	<0,001	0,14
Loneliness	3,75	3,13	4,40	2,74	11,24*	<0,001	0,28
Happiness	8,24	1,91	7,56	2,04	13,57*	<0,001	0,31

Legend: M — arithmetic mean value; SD — standard deviation; z — normalized value of the Mann-Whitney test; r — effect size index (rank biserial correlation); p — level of statistical significance; * — differences are statistically significant.

all psychological well-being indicator and its main components with age contradicts the trend identified in previous studies, both Russian [1; 2], as well as international [11], which suggests a significant contribution to the well-being experience of the the specific activities of Russian preschool educational institutions: not only the age of the respondent, but also his/her work in a preschool educational institution is important.

A comparison of the well-being components expressiveness among preschool teachers of different age groups showed that the lowest values of psychological well-being indicators were found in the age group of 18-35 years. But despite the fact that the well-being components among teachers of preschool educational institutions in the age category of 18—35 years are expressed to a lesser extent than among teachers of other age groups, the values of these indicators are still significantly higher than in the general sample of Russian women of the same age group.

Similar patterns are observed on additional scales of the questionnaire: indicators of “happiness” and “health” among

preschool teachers aged 18—35 years are higher compared to the general sample of Russian women of the same age and lower compared to older preschool teachers. For the indicators “negative emotions” and “loneliness” the correlations are inverse.

**Psychological well-being
 and marital status**

The marital status of preschool teachers is also associated with their well-being (Table 5).

Married teachers have more pronounced overall well-being indicators and all of the components. Unmarried teachers had higher scores on the “negative emotions” and “loneliness” scales, which are negatively associated with well-being. The largest effect size was determined by the indicators “relationship” and “loneliness”, which characterize the processes of interaction with other people.

Psychological well-being indicators of preschool teachers (married and unmarried) in comparison with the corresponding indicators of the general Russian female sample (N=4040) are presented in Table. 6.

Table 5

Well-being components' indicators of teachers with different marital status (N=2135)

Scale title	Maried		Single		z	p	r
	M	SD	M	SD			
General well-being	8,17	1,20	7,75	1,41	6,60*	<0,001	0,17
Positive emotions	8,08	1,42	7,74	1,62	4,46*	<0,001	0,12
Relationships	8,09	1,57	7,17	1,99	10,46*	<0,001	0,27
Involvement	7,87	1,43	7,72	1,51	2,17*	0,030	0,06
Sense	8,20	1,49	7,86	1,66	4,29*	<0,001	0,11
Achievements	8,19	1,27	8,02	1,38	2,17*	0,030	0,06
Negative emotions	4,69	1,81	4,90	1,95	2,09*	0,036	0,06
Health	6,71	1,83	6,62	1,91	0,85	0,397	0,02
Loneliness	2,80	2,99	4,18	3,18	9,75*	<0,001	0,25
Happiness	8,59	1,60	7,98	1,98	6,81*	<0,001	0,17

Legend: M — arithmetic mean value; SD — standard deviation; z — normalized value of the Mann-Whitney test; r — effect size index (rank biserial correlation); p — level of statistical significance; * — differences are statistically significant.

Table 6

Psychological well-being indicators of married and unmarried teachers and a general Russian female sample

Scale title	Marital status	Teachers		General sample		z	p	r
		M	SD	M	SD			
General well-being	Married	8,17	1,20	7,11	1,55	6,60*	<0,001	0,17
	single	7,75	1,41	7,42	1,41	6,49*	<0,001	0,17
Positive emotions	Married	8,08	1,42	7,28	1,80	4,46*	<0,001	0,12
	single	7,74	1,62	7,48	1,63	3,00*	0,003	0,08
Relationships	Married	8,09	1,57	6,91	2,06	10,46*	<0,001	0,27
	single	7,17	1,99	7,58	1,77	4,99*	<0,001	0,15
Involvement	Married	7,87	1,43	7,08	1,59	2,17*	0,030	0,06
	single	7,72	1,51	7,09	1,56	2,08*	0,041	0,06
Sense	Married	8,20	1,49	7,00	1,89	4,29*	<0,001	0,11
	single	7,86	1,66	7,33	1,66	4,98*	<0,001	0,18
Achievements	Married	8,19	1,27	7,13	1,53	2,17*	0,030	0,06
	single	8,02	1,38	7,30	1,46	3,51*	<0,001	0,10
Negative emotions	Married	4,69	1,81	6,62	1,97	2,09*	0,036	0,06
	single	4,90	1,95	6,52	1,88	1,94	0,052	0,05
Health	Married	6,71	1,83	4,90	2,71	0,85	0,39	0,02
	single	6,62	1,91	3,92	2,68	11,67*	<0,001	0,29
Loneliness	Married	2,80	2,99	3,96	2,15	9,75*	<0,001	0,26
	single	4,18	3,18	4,50	2,78	7,47*	<0,001	0,24
Happiness	Married	8,59	1,60	6,09	1,85	6,87*	<0,001	0,18
	single	7,98	1,98	5,95	1,75	2,32*	0,021	0,07

Legend: M — arithmetic mean value; SD — standard deviation; z — normalized value of the Mann-Whitney test; r — effect size index (rank biserial correlation); p — level of statistical significance; * — differences are statistically significant.

Although psychological well-being components among teachers of preschool educational institutions who are not officially married are less pronounced than among teachers who are married, the values of these indicators are still significantly higher than in the general sample of Russian women. The exception is the “relationship” indicator in the group of unmarried teachers: this indicator is significantly lower even in comparison with the general sample of Russian women.

The same patterns are observed in the indicator on the additional “happiness” scale: among teachers of preschool educational institutions it is higher compared to the general sample of Russian women, both among those who are officially married and among those who are not married.

Psychological well-being and parental status

Among study participants with different numbers of children, most indicators of psychological well-being differed significantly (Table 7).

Teachers of preschool educational institutions with children are distinguished by higher values on all scales of the question-

naire that are positively associated with well-being, and vice versa, by lower values of additional indicators on scales that are negatively associated with well-being, compared with the corresponding all-Russian sample of women. The well-being of teachers who have children is generally higher than the well-being of Russian women who do not have children.

The differences in the psychological well-being level of preschool teachers who do not have children are less pronounced in comparison with the corresponding all-Russian sample of women. This is manifested, firstly, in a smaller effect size for teachers compared to the all-Russian sample in terms of overall well-being indicators, and such components as “engagement,” “meaning,” “achievement,” and additional indicators of “negative emotions,” “loneliness,” and “happiness.” In addition, there are no statistically significant differences between teachers of preschool educational institutions and the all-Russian sample of women without children in terms of “positive emotions” and “relationships”.

The presence of children is associated with the teachers’ overall psychological well-being, significantly ensures the ex-

Table 7

Psychological well-being components’ indicators of teachers with and without children (N=2135)

Scale title	Have children		No children		z	p	r
	M	SD	M	SD			
General well-being	8,06	1,25	7,54	1,51	5,45*	<0,001	0,22
Positive emotions	8,02	1,46	7,50	1,72	4,46*	<0,001	0,18
Relationship	7,82	1,76	7,37	1,88	3,64*	<0,001	0,15
Involvement	7,87	1,43	7,42	1,63	4,06*	<0,001	0,16
Sense	8,15	1,51	7,52	1,81	5,14*	<0,001	0,21
Achievements	8,20	1,28	7,61	1,47	5,87*	<0,001	0,23
Negative emotions	4,72	1,85	5,13	1,94	3,04*	0,002	0,12
Health	6,71	1,82	6,39	2,12	2,19*	0,029	0,09
Loneliness	3,16	3,11	4,20	3,10	5,08*	<0,001	0,20
Happiness	8,45	1,71	7,80	2,06	4,79*	<0,001	0,19

Legend: M — arithmetic mean value; SD — standard deviation; z — normalized value of the Mann-Whitney test; r — effect size index (rank biserial correlation); p — level of statistical significance; * — differences are statistically significant.

Table 8

Indicators of psychological well-being indicators of teachers with and without children and a general Russian female sample

Scale title	Family status	Teachers		General sample		z	p	r
		M	SD	M	SD			
General well-being	Has children	8,06	1,25	7,37	1,46	14,94*	<0,001	0,41
	No children	7,54	1,51	7,17	1,53	3,46*	0,001	0,13
Positive emotions	Has children	8,02	1,46	7,43	1,68	10,40*	<0,001	0,27
	No children	7,50	1,72	7,32	1,76	1,08	0,279	0,07
Relationships	Has children	7,82	1,76	7,32	1,87	8,11*	<0,001	0,25
	No children	7,37	1,88	7,10	2,03	1,73	0,083	0,08
Involvement	Has children	7,87	1,43	7,10	1,59	14,06*	<0,001	0,41
	No children	7,42	1,63	7,07	1,57	3,06*	0,002	0,13
Sense	Has children	8,15	1,51	7,34	1,67	14,73*	<0,001	0,40
	No children	7,52	1,81	7,02	1,87	3,85*	<0,001	0,14
Achievements	Has children	8,20	1,28	7,33	1,47	17,95*	<0,001	0,43
	No children	7,61	1,47	7,13	1,52	4,43*	<0,001	0,15
Negative emotions	Has children	4,72	1,85	5,91	1,76	35,11*	<0,001	0,56
	No children	5,13	1,94	6,10	1,83	12,40*	<0,001	0,36
Health	Has children	6,71	1,82	6,56	1,90	25,51*	<0,001	0,50
	No children	6,39	2,12	6,59	1,96	10,48*	<0,001	0,27
Loneliness	Has children	3,16	3,11	4,05	2,76	27,29*	<0,001	0,52
	No children	4,20	3,10	4,75	2,70	9,23*	<0,001	0,26
Happiness	Has children	8,45	1,71	7,71	1,95	36,72*	<0,001	0,59
	No children	7,80	2,06	7,34	2,12	14,49*	<0,001	0,39

Legend: M — arithmetic mean value; SD — standard deviation; z — normalized value of the Mann-Whitney test; r — effect size index (rank biserial correlation); p — level of statistical significance; * — differences are statistically significant.

perience of positive emotions, a sense of connections with other people, protects against feelings of loneliness and gives life additional meaning. Such components of psychological well-being as “engagement,” “meaning,” and “achievement” do not have the same pronounced tendency to be connected. However, these components in the structure of well-being are more pronounced among teachers who have children than among those who do not have them.

Conclusion

The study of the psychological well-being of teachers of preschool educational institutions reveals the characteristics of the personal functioning of representa-

tives of one of the most important teaching professions.

The results of the research of psychological well-being and its components among teachers of Russian preschool educational institutions that make up the research sample showed that their well-being level is quite high and thereby corresponding to the possibilities of fulfilling educational and developmental tasks, which are outlined in the main guidelines of the Russian preschool education system.

Teachers of preschool educational institutions that make up the study sample are distinguished by a higher level of overall psychological well-being than that of the main Russian sample [2], as well as higher values of the following well-being compo-

nents: “positive emotions”, “relationships” with other people, “engagement” into activity, the “meaning” of activity and “achievement”. They are characterized by a higher subjective assessment of the experience of happiness and health, which reflects a person’s sense of physical health and vitality. They are less likely to experience negative emotions and loneliness.

Positive trends in the psychological well-being level among preschool teachers who make up the sample of our study are associated with their age: the older they are and the longer they work, the higher their well-being level. Probably, a specific mechanism for achieving well-being for these preschool teachers is the mechanisms of building positive relationships with loved ones, the ability to be optimistic about life, a sense of involvement in professional activities and a feeling of being in demand and needed.

The most relatively “disadvantaged” group were teachers aged 18—35. This group had the lowest (within the group) indicators of overall well-being and its components. At the same time, young preschool teachers, compared to the general Russian sample, feel themselves to be more prosperous people. For this group, important and specific ways to achieve psychological well-being are the involvement of a young teacher in activities and achievements in this activity as a result of their own efforts and responsibility. These mechanisms of internal motivation for activity as a source of achieving psychological well-being ensure a young teacher’s subjectivity develop-

ment. However, the study results suggest that these trends do not develop during the professional career of preschool teachers: the older the teacher becomes, the longer he/she works in a preschool educational institution, the less influence activity mechanisms have on his/her well-being.

Among factors of psychological well-being can be considered the marital status of preschool teachers as well as their parental status: i.e. marriage, family, and their own children increase the feeling of well-being, while a violation of family status leads to deformation of an important well-being component such as the ability to build positive relationships with other people, social connections and contacts.

Thus, the variables associated with the psychological well-being of preschool teachers are the age, marital status, and parental status. Although working experience in a certain position and the qualification category of an employee influence the feeling of well-being, this impact cannot be called significant. The level of education and place of residence do not directly affect the well-being level.

Our study showed that, in general, the psychological well-being of preschool teachers is a sufficient personal resource that meets the criterion of realistic fulfillment of tasks and requirements for preschool education in the Russian Federation, and the identified features of the psychological well-being of preschool teachers can serve as the basis for optimizing personnel policy in Russian preschool education.

References

1. Isaeva O.M., Akimova A.Ju., Volkova E.N. Oprosnik blagopoluchija PERMA-Profil: aprobacija russkojazychnoj versii [PERMA-Profil: the Approbation of the Russian Version]. *Social'naja psihologija i obshhestvo = Social Psychology and Society*, 2022. Vol. 13, no. 3, pp. 116—133. DOI:10.17759/sps.2022130308 (in Russ.).
2. Isaeva O.M., Akimova A.Ju., Volkova E.N. Faktory psihologicheskogo blagopoluchija rossijskoj molodezhi [Factors of Psychological Well-being in Russian Youth]. *Psihologicheskaya nauka i obrazovanie = Psychological Science and Education*, 2022. Vol. 27, no. 4, pp. 24—35. DOI:10.17759/pse.2022270403 (in Russ.).
3. Kedjarova E.A., Cherneckaja N.I., Shukina E.G. Sub'ektivnoe blagopoluchie vospitatelej v detskih sadah s raznymi tipami obrazovatel'noj sredy. *Pedagogicheskij IMIDZH [Pedagogical image]*, 2021. Vol. 3, no. 52, pp. 345—355. DOI:10.32343/2409-5052-2021-15-3-345-355 (in Russ.).
4. Konceptcija monitoringa doskol'nogo obrazovanija RF [Elektronny resurs]. URL: https://ciur.ru/jar/jar_ds2/DocLib24/Концепция_МКДО_2022.pdf (Accessed 30.12.2022).(in Russ.).

5. Mirimanova M.S. Раннее прогнозирование social'no-psihologicheskikh riskov i ih profilaktika v doshkol'nyh obrazovatel'nyh organizacijah. [Early prediction of socio-psychological risks and prevention of such in preschool educational organizations]. In Zareckaja T.N., Odincova M.A. (eds.) *Bezopasnost' obrazovatel'noj sredy: sostojanie, problemy, puti reshenija v sovremennyh uslovijah: kollektivnaja monografija [Safety of the educational environment: state, problems, solutions in modern conditions: collective monograph]*. Moscow: MSUPE, 2015, pp. 138—151. (in Russ.).
6. Professional'nyi standart «Specialist v oblasti vospitaniya» (utv. prikazom Ministerstva truda i social'noj zashhity Rossii ot 10 janvarja 2017 g. № 10n) [Professional standart for Educators approved by the Ministry of Labor and Social Development on 10.01.2017] [Elektronny resurs]. URL: <https://www.eduprofrb.ru/uploads/documents/docs/n-10n.pdf?ysclid=iclwmfjwpb845891438> (Accessed 30.12.2022) (in Russ.).
7. Semenova L.Je., Semenova V.Je. Issledovanie psihologicheskogo blagopoluchija doshkol'nyh pedagogov. *Sistemnaja psihologija i sociologija [Systems Psychology and Sociology]*, 2018, no. 4 (28), pp. 40—54 (in Russ.).
8. Fomina N.V., Burhanova A.A. Osobennosti professional'nogo samootnoshenija pedagogov detskikh obrazovatel'nyh organizacii [Elektronny resurs]. *Sovremennye naukoemkie tehnologii [Modern high-tech technologies]*, 2017, no. 3, pp. 113—119. URL: <http://www.top-technologies.ru/ru/article/view?id=36626> (Accessed 30.12.2022) (in Russ.).
9. Cvetkova L.A., Antonova N.A., Dubrovskij R.G. Konceptual'nye osnovy izuchenija i izmerenija zdorov'ja i blagopoluchija cheloveka s pozicij psihologicheskoi nauki [A Conceptual Framework for the Study and Measurement of Human Health and Well-Being from the Standpoint of Psychological Science]. *Vestnik Rossijskogo fonda fundamental'nyh issledovanij [Journal of Russian Foundation for Basic Research]*, 2019, no. 4(104), pp. 69—75. DOI:10.22204/2410-4639-2019-104-04-69-75 (in Russ)
10. Adler A., Seligman M.E. Using wellbeing for public policy: Theory, measurement, and recommendations. *International Journal of Wellbeing*, 2016. Vol. 6(1), pp. 1—35.
11. Butler J., Kern M.L. The PERMA-Profilier: A brief multidimensional measure of flourishing. *International Journal of Wellbeing*, 2016. Vol. 6(3), pp. 1—48. DOI:10.5502/ijw.v6i3.526
12. Csikszentmihalyi M., Wong M.MH. The Situational and Personal Correlates of Happiness: A Cross-National Comparison. In: *Flow and the Foundations of Positive Psychology*. Springer, Dordrecht, 2014. DOI:10.1007/978-94-017-9088-8_5
13. Jimenez W.P., Hu X., Garden R., Xie X. Toward a more PERMA(nent) conceptualization of worker well-being? A cross-cultural study of the Workplace PERMA Profiler. *Journal of Personnel Psychology*, 2021. Advance online publication. DOI:10.1027/1866-5888/a000288
14. Kern M.L., Waters L.E., Adler A., White M.A. A multidimensional approach to measuring wellbeing in students: Application of the PERMA framework. *The Journal of Positive Psychology*, 2015. Vol. 10(3), pp. 262—271.
15. Kroencke L., Harari G.M., Back M., Wagner J. Well-Being in Social Interactions: Examining Personality-Situation Dynamics in Face-to-Face and Computer-Mediated Communication. 2022. DOI:10.31234/osf.io/g6s8f
16. Lakioti A., Stalikas A., Pezirkianidis C. The role of personal, professional, and psychological factors in therapists' resilience. *Professional Psychology: Research and Practice*, 2022. Vol. 51(6), pp. 560—570. DOI:10.1037/pro0000306
17. Seligman M.E.P. Flourishing. A new understanding of happiness and well-being and how to achieve them. Boston: Nicholas Brealey, 2011.

Литература

1. Исаева О.М., Акимова А.Ю., Волкова Е.Н. Опросник благополучия PERMA-Profilier: апробация русскоязычной версии // Социальная психология и общество. 2022. Том 13. № 3. С. 116—133. DOI:10.17759/sps.2022130308
2. Исаева О.М., Акимова А.Ю., Волкова Е.Н. Факторы психологического благополучия российской молодежи // Психологическая наука и образование. 2022. Том 27. № 4. С. 24—35. DOI:10.17759/pse.2022270403
3. Кедярова Е.А., Чернецкая Н.И., Шукина Е.Г. Субъективное благополучие воспитателей в детских садах с разными типами образовательной среды // Педагогический ИМИДЖ. 2021. № 3(52). С. 345—355. DOI:10.32343/2409-5052-2021-15-3-345-355
4. Концепция мониторинга дошкольного образования РФ [Электронный ресурс]. URL: https://ciur.ru/jar/jar_ds2/DocLib24/Концепция_МКДО_2022.pdf (дата обращения: 30.12.2022).
5. Мириманова М.С. Раннее прогнозирование социально-психологических рисков и их профилактика в дошкольных образовательных организациях // Безопасность образовательной среды: состояние, проблемы, пути решения в современных условиях: коллективная монография / ред. Т.Н. Зарецкая, М.А. Одинцова. М.: МГППУ, 2015. С. 138—151.
6. Профессиональный стандарт «Специалист в области воспитания» (утв. приказом Минтрудсоцзащиты России от 10 января 2017 г. № 10н) [Электронный ресурс]. URL: <https://>

www.eduprofrb.ru/uploads/documents/docs/n-10n.pdf?ysclid=iclwfmfjwpb845891438 (дата обращения: 30.12.2022).

7. Семенова Л.Э., Семенова В.Э. Исследование психологического благополучия дошкольных педагогов // Системная психология и социология. 2018. № 4(28). С. 40—54.

8. Фомина Н.В., Бурханова А.А. Особенности профессионального самоотношения педагогов детских образовательных организаций [Электронный ресурс] // Современные наукоемкие технологии. 2017. № 3. С. 113—119. URL: <http://www.top-technologies.ru/ru/article/view?id=36626> (дата обращения: 30.12.2022).

9. Цветкова Л.А., Антонова Н.А., Дубровский Р.Г. Концептуальные основы изучения и измерения здоровья и благополучия человека с позиций психологической науки // Вестник Российского фонда фундаментальных исследований. 2019. № 4(104). С. 69—75. DOI:10.22204/2410-4639-2019-104-04-69-75

10. Adler A., Seligman M.E. Using wellbeing for public policy: Theory, measurement, and recommendations // International Journal of Wellbeing. 2016. Vol. 6(1). P. 1—35.

11. Butler J., Kern M.L. The PERMA-Profilers: A brief multidimensional measure of flourishing // International Journal of Wellbeing. 2016. Vol. 6(3). P. 1—48. DOI:10.5502/ijw.v6i3.526

12. Csikszentmihalyi M., Wong M.M.H. The Situational and Personal Correlates of Happiness: A Cross-National Comparison. In: Flow and the Foundations of Positive Psychology. Springer, Dordrecht, 2014. DOI:10.1007/978-94-017-9088-8_5

13. Jimenez W.P., Hu X., Garden R., Xie X. Toward a more PERMA(nent) conceptualization of worker well-being? A cross-cultural study of the Workplace PERMA Profiler // Journal of Personnel Psychology. 2021. Advance online publication. DOI:10.1027/1866-5888/a000288

14. Kern M.L., Waters L.E., Adler A., White M.A. A multidimensional approach to measuring wellbeing in students: Application of the PERMA framework // The Journal of Positive Psychology. 2015. Vol. 10(3). P. 262—271.

15. Kroencke L., Harari G.M., Back M., Wagner J. Well-Being in Social Interactions: Examining Personality-Situation Dynamics in Face-to-Face and Computer-Mediated Communication. 2022. DOI:10.31234/osf.io/g6s8f

16. Lakioti A., Stalkas A., Pezirkianidis C. The role of personal, professional, and psychological factors in therapists' resilience // Professional Psychology: Research and Practice. 2022. Vol. 51(6). P. 560—570. DOI:10.1037/pro0000306

17. Seligman M.E.P. Flourishing. A new understanding of happiness and well-being and how to achieve them. Boston: Nicholas Brealey, 2011.

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