





УДК 057.875:377

doi: 10.15507/1991-9468.108.026.202203.418-432



Original article

Attitude to Labor among Learners of Industrial Colleges in Russia, China and Iran

L. N. Zakharova , Z. H. Saralieva, Z. Ghadbeigi, L. Zhu
National Research Lobachevsky State University of Nizhny Novgorod,
Nizhny Novgorod, Russian Federation
 zlnnov@mail.ru

Abstract

Introduction. A contradiction which we are able to observe over a few recent decades between necessity to participate in innovative processes and their natural stressogenic character has underlined the importance of developing programs for proactive organizational socialization which will be capable of building up successful behavior competences in VUCA environment in Industry 4.0. When self-actualization in labor is being devalued, attitude to labor is now considered as a key competence. Purpose: to reveal features of attitude to labor as a basis of professional socialization of learners studying at industrial colleges in countries which are now entering the new technological reality with a different degree of success: Russia, China and Iran.

Materials and Methods. The analysis draws on the data obtained with WorkBAT method developed by J. Spence and A. Robbins, and their correlation with the values of organizational cultures which are characteristic of industrial colleges. The data on organizational cultures were obtained with OCAI method developed by C. Cameron and R. Quinn.

Results. Russian students do not feel the changed nature of labor, their attitude to it is substituted by a wish to strengthen clan-based and loosen hierarchical components of the organizational cultures. Iranian students have a negative attitude to labor in a real hierarchical environment and a positive attitude to it in an innovative market environment, which suggests that they would be engaged and emotionally satisfied. Chinese students, having experienced specific organizational cultures of innovative companies in real life, have a positive attitude to labor in a hierarchical environment of stability and certainty.

Discussion and Conclusion. The findings contribute to the development of scientific understanding of the role of value-based work readiness in the turbulent environment of a modern enterprise and the psychological mechanisms of proactive organizational socialization, taking into account socio-cultural country specificity.

Keywords: industry 4.0, industrial colleges, student, organizational culture, values, innovation, attitude to labor, organizational socialization

Conflict of interests: The authors declare no conflict of interest.

For citation: Zakharova L.N., Saralieva Z.H., Ghadbeigi Z., Zhu L. Attitude to Labor among Learners of Industrial Colleges in Russia, China and Iran. *Integration of Education*. 2022;26(3):418–432. doi: <https://doi.org/10.15507/1991-9468.108.026.202203.418-432>

© Zakharova L. N., Saralieva Z. H., Ghadbeigi Z., Zhu L., 2022



Контент доступен под лицензией Creative Commons Attribution 4.0 License.
The content is available under Creative Commons Attribution 4.0 License.

Научная статья

Отношение к труду студентов индустриальных колледжей России, Китая, Ирана

Л. Н. Захарова[✉], З. Х. Саралиева, З. Гадбеджи, Л. Чжу
Национальный исследовательский Нижегородский государственный
университет им. Н. И. Лобачевского,
г. Нижний Новгород, Российская Федерация
[✉] zlnnnov@mail.ru

Аннотация

Введение. Противоречия последних десятилетий между необходимостью участия в инновационных процессах и их закономерной стрессогенностью обуславливают необходимость разработки программ упреждающей организационной социализации для становления компетенций успешного поведения в VUCA среде индустрии 4.0. Отношение к труду в условиях девальвации ценности самореализации в труде рассмотрено в качестве ключевой компетенции. Цель исследования – выявить особенности отношения к труду как основы профессиональной социализации студентов индустриальных колледжей стран, с разной успешностью входящих в новый технологический уклад России, Китая и Ирана.

Материалы и методы. Анализ построен на данных с применением методики оценки отношения к труду WorkBAT Дж. Спенса и А. Роббинса и их соотнесения с ценностями организационных культур индустриальных колледжей. Данные об организационных культурах получены с помощью метода OCAI К. Камерона и Р. Куинна.

Результаты исследования. В результате проведенного исследования было выявлено, что российские студенты не ощущают изменившегося характера трудовой деятельности, у них сохраняется желание усиления клановой и снижения иерархической составляющих организационных культур. Иранские студенты негативно относятся к труду в реальных иерархических условиях и позитивно – к инновационно-рыночным условиям. Китайские учащиеся, испытав в реальности специфику организационных культур инновационных компаний, положительно относятся к труду в иерархических условиях стабильности и определенности. Разработка программ упреждающей организационной социализации строится с учетом страновой специфики – баланса ценностной готовности к работе в организационных культурах с доминирующими инновационными ценностями, расширения знаний об организационных условиях современного предприятия и умений волевой регуляции деятельности.

Обсуждение и заключение. Полученные результаты вносят вклад в развитие научных представлений о роли ценностной готовности к работе в турбулентной среде современного предприятия и психологических механизмах упреждающей организационной социализации с учетом социокультурной страновой специфики.

Ключевые слова: индустрия 4.0, индустриальный колледж, студент, организационная культура, ценность, инновации, отношение к труду, организационная социализация

Конфликт интересов: авторы заявляют об отсутствии конфликта интересов.

Для цитирования: Отношение к труду студентов индустриальных колледжей России, Китая, Ирана / Л. Н. Захарова [и др.] // Интеграция образования. 2022. Т. 26, № 3. С. 418–432. doi: <https://doi.org/10.15507/1991-9468.108.026.202203.418-432>

Introduction

An employee's attitude to labor is becoming one of the key competences in ever-changing technological world. Companies increasingly need staff who are engaged to work, who are psychologically ready for both continuous and self-learning and who are capable of developing themselves together with the company [1; 2]. Graduates of industrial colleges, being at the forefront of industrialization, make no exception. High demand

for these qualities is explained by ongoing organizational changes in companies which aim at improving competitiveness and vitality on the eve of upcoming Industry 4.0, causing variability of external and internal organizational environments of companies, which are becoming more and more unstable, uncertain, complex and ambiguous [3–5]. These characteristics of VUCA world are stressogenic by nature and, therefore, if improperly handled, they can disrupt activities with the level of



damage being proportionate to the complexity of these activities¹. This explains why the list of personal qualities necessary for a modern young worker should include absence of fear to make mistakes [6]. Thus, we are observing a strong contradiction between the need to involve an employee into VUCA organizational environment and its stressogenicity that prevents such involvement. This contradiction becomes even more dramatic if we deal with green employees who lack practical experience and special socialization training from an educational institution. Such employees are graduates of industrial colleges. The actual task of modern education system at all levels is to develop methodological approaches and socialization technologies aimed at developing graduates' competences for life and professional activities in VUCA world and VUCA organizational environment.

Literature Review

A number of studies reveal peculiarities of graduates' readiness/unreadiness to behave effectively in the modern labor market which is full of innovative companies. College graduates often fail even to reach their workplace in the company, giving their preferences to other areas of employment, which clearly indicates that educational process

failed to develop in them a feeling of readiness to work in modern conditions. This is further complicated by a growing trend when young people are losing labor values. Thus, modern Russia is characterized by the commitment of the older generation, including agents of organizational socialization, to the values of stability and hope for state protectionism. These values and attitudes are transmitted to young people, restraining their innovation and self-realization potential [7; 8]. There are also global trends of labor devaluation among young people [8; 9]. The existing social conditions – breach of principle of social justice in the country, lack of ideological unity in the society and ineffective state youth policy – contribute to further devaluation of needs for personal fulfillment in general and at work in particular [10, p. 457]. Labor is increasingly becoming a tool of meeting needs of a consumer character which are more subjectively important. Stressful VUCA environment does not increase attractiveness of labor. The projection of the VUCA environment characteristics onto work situations faced by an industrial college graduate after relative stability of educational process allows us to see both its specific manifestations and mental states caused by these manifestations (Table 1).

Table 1. VUCA organizational environment and the psychological costs which a young graduate from an industrial college has to pay (examples)

Characteristics of VUCA organizational environment	Manifestations	Deprivable needs	Mental states
Instability	Unstable position of the company in a competitive environment. Internal competition in work relations, in remuneration of work	In security – stability	Uncertainty in your own position; mental tension, stress
Uncertainty	Possibility of introducing new, unknown technologies, artificial intelligence systems, automation and, as a consequence, loss of jobs	Homeostatic, in safety	Cognitive dissonance, stress
Complexity	Subjective complexity of new technologies, teamwork relationships. Need to constantly improve qualification	In high self esteem	Tension of cognitive functions, fear of failure, stress
Ambiguity of technological and social situations	Need to make prompt decisions in the presence of alternatives	In safety – in psychological safety	Stress

Source: The table was compiled by the authors.

¹ Kitaev-Smyk L.A. [The Psychology of Stress. The Psychological Anthropology of Stress]. Moscow: Akademicheskii proekt Publ.; 2009. 944 p. Available at: https://www.studmed.ru/kitaev-smyk-la-psiologiya-stressa-psiologicheskaya-antropologiya-stressa_6add072bd9f.html (accessed 10.10.2021). (In Russ.)

These examples clearly show that VUCA environment contributes to deprivation of all deficient human needs. At the same time in the global world countries may differ from each other in terms of innovativeness and, consequently, it grants us an opportunity to compare attitude to labor among young people – potential employees of industrial companies, with different employment prospects in VUCA organizational environment.

The issue of peculiarities of attitude to labor, formed in the educational environment of industrial colleges in the countries which economies differ in terms of innovativeness, has recently become actual. The answer to this question can, firstly, contribute to solving the problem of matching the values and personality of an employee with the specifics of the company [11]. Secondly, there is an increasing challenge to develop scientific foundations and new practices of proactive organizational socialization to work in a VUCA-organisational environment in different socio-cultural settings [12]. Finally, enterprises need to develop approaches to select candidates who are able to work effectively in a VUCA environment [13–15].

Statistics show that while 31% of university graduates in 2016–2018 do not work according to their degrees, college graduates show a more substantial percentage (43%) while graduates of vocational schools hit the mark of 50%. But mostly not because of unemployment, its rate in early 2020 is about 18% [16]. Assessment of graduates' employment is an important indicator in the college system. However, it seldom takes into account that a request for training may come from obsolete enterprises, in which modern young people are unwilling to work, while innovative industries fail to find workers with the right qualifications, because the educational system lacks both human and material resources to train highly-qualified personnel [17].

Research into how much employers are satisfied with the quality of training in colleges showed that a mere 25% of managers in domestic businesses feel rather dissatisfied than satisfied with the level of qualifications of young workers who joined their companies within the first year after graduation. At

the same time, 40% of respondents expressed their strong dissatisfaction with the level of their professional qualifications, while only 35% of employers were satisfied with it [18]. As we all know, workforce training has to comply with federal educational standards for colleges which, in their turn, might be insensitive to current production conditions in industries, innovations, results and plans to modernize businesses. The issues of psychological preparedness for work in the context of innovation are not considered at all, although researchers, reflecting the lack of preparation of young people for study and work in modern conditions, write about the need to develop non-cognitive competences [19] and career adaptation skills as a condition for meeting the changing needs of the economy [20].

As it often happens, it is not work motivation that prompts school students to enter colleges as part of their educational trajectory. The key trigger for a growing demand for college programs is a fall in households' real incomes, which together with growing unavailability of higher education “push” students with low socioeconomic status out of the academic track [21]. At the same time, so much sought-after qualities of involvement and readiness which are necessary for constant innovative changes cannot be formed without motivation to realize oneself at work, which gives a sense of subjective well-being in VUCA environment, which is emotionally responsible for accepting innovations in work [22]. Emotions relate to the dominant motivation, so it is VUCA environment which may come as a challenge in their work, and by meeting this challenge promptly, employees could develop in themselves a sense of strong satisfaction which, in its turn, might improve involvement and a wish to learn further to keep up with changing demands.

The challenges that VUCA environment throw at a worker have sparked in-depth research to identify effective approaches to live in such environment. Special attention was paid to adaptation to VUCA environment and there were offered such approaches, starting at school and far into lifelong learning, as identifying features of VUCA



world and ways to respond to its challenges, building life and career design based on a person's own identity, using leadership, counseling and training opportunities to build and adjust dynamic life plans [23]. Researchers claim there are no universal life hacks to live in VUCA world which justifies the development of pedagogy focused on developing human abilities for constant self-reflection, responsibility and discernment, which will ensure employees' natural universal readiness to dynamic and uncertain conditions of life [5].

A model for navigating a person around VUCA world has been proposed, and it claims that most people do not see variable solutions in a particular situation, instead, they tend to take simplistic ones, which in VUCA world seems dangerous enough [3]. We should also look at cross-border workers' commitment. The task has been set to explore the critical quality of commitment beyond dyadic employer-employee relationships, but commitment in multipurpose conditions, including organizations, teams, professions and customers [4]. Although graduates of industrial colleges tend to work in one enterprise, new forms of team and project work set new tasks for the college system to teach students to adapt to multiple goals and teams.

Some researchers focus on the factors of organizational environment that contribute to viability of a company in a dynamic innovative world. Thus, it becomes important to build an open, trustworthy and learning-oriented organizational culture (OC), capable of involving staff to work on anticipation which could help those overcome threats and crisis phenomena [24]. L. Zakharova shows a decisive role of a supportive model of managerial interaction in achieving employees' sense of subjective well-being under conditions of innovative changes [22]. At the same time, we see how much attentive and professional a teacher or supervisor should be: external motivation for proactivity increases

its stress-inducing effects, which manifests itself in a sense of worker's subjective unhappiness and, consequently, decreases intrinsic motivation to work [25]. D. Yagil shows the importance of service leadership for effective adaptation and high achievements of employees [26]. These data correlate well with the conclusions made by S. Duchek, since service leadership and supportive behavior of managers lie at the basis of trustworthy culture and fulfillment of basic UC functions in conditions of uncertainty: internal integration and external adaptation².

Briefly summarizing results of research into development of readiness to live and work in VUCA environment and trying to apply these data to industrial college graduates' attitude to labor and readiness to work in organizational conditions of innovative companies, we can conclude that this issue remains actual and requires further research. The obtained results may act as a starting point in developing and implementing socialization programs.

Attitude as a phenomenon was most thoroughly examined by outstanding Russian psychologist V. Myasishchev. He claims that attitude is formed in personality as a result of a person's conscious reflection of the essence of social objectively existing relations in the society into their macro- and micro-world in which they live. An obligatory component of any attitude is an emotion. Without emotions there is no attitude, only indifference³.

His thoughts directly steer the researcher to analyze features of perception of external and organizational contexts in which work is done or will be done, how workers see abilities to position themselves in these contexts, and what emotions this positioning is accompanied by. Studies show that the most similar to VUCA environment is an organizational culture (OC) with dominating innovative and market components⁴ [27]. Therefore, it makes sense to study industrial college students' attitude to labor through

² Schein E.H., Schein P.A. *Organizational Culture and Leadership*. 5th ed. John Wiley & Sons; 2004. 416 p. Available at: <https://www.wiley.com/en-ie/Organizational+Culture+and+Leadership%2C+5th+Edition-p-9781119212041> (accessed 20.09.2021).

³ Myasishchev V.N. [Psychology of Relationships]. 4th ed. Moscow: MODEK Publ.; 2011. 400 p. Available at: http://web.krao.kg/10_psihologia/0_pdf/10.pdf (accessed 20.09.2021). (In Russ.)

⁴ Zakharova L.N., Leonova I.S., Korobejnikova E.V. [Values Conflict and Psychological Vitality of Personnel of Russian Enterprises: A Monograph]. Nizhny Novgorod: NNGU, 2017. 406 p. (In Russ.)

organizational cultures of these colleges in countries with different levels of involvement in innovation processes: Russia (45th place in the Global innovativeness rating), China (12th place) and Iran (60th place)⁵, which correspond to different OC models⁶.

Purpose of the empirical study – to identify characteristics of attitude to labor among students from industrial colleges in Russia, China, Iran and how these characteristics relate to organizational and cultural conditions at their future workplaces which will form the basis for developing programs of organizational socialization. The organizational culture of industrial colleges in the three countries has been thoroughly analyzed and described in earlier publications [28; 29]. Here we present the results of students' attitudes towards work in these organizational cultures.

Materials and Methods

The methodological basis of our research is V. Myasishchev's theory of relations, K. Cameron and R. Quinn's concept and typology of organizational culture⁷. V. Myasishchev's theory analyzes how relations emerge taking into account challenges of the social context in which students live and study. The value approach to OC offered by K. Cameron and R. specifies value determination of students' attitude to labor, because, according to their model, organizational cultures differ at the level of their basic values. Clan OC is based on relational values. Clan-based OC is based on values of relations, adhocratic – values of innovativeness, market-based- values of success in a competitive environment and hierarchical – values of following instructions, algorithms, order.

Organizational Culture Assessment Instrument (OCAI) developed by K. Cameron and R. Quinn and supplemented with two questions for students – “What conditions are likely to be in the enterprise where you will come to work?”, “In an enterprise with

what organizational conditions would you like to work?” [28].

Respondents. Male students of industrial colleges in Russia (Nizhny Novgorod, 110 students), China (Guangxi, 110 students), Iran (Tehran, 100 students), a total of 320 respondents. Three colleges were represented from each city. All respondents were informed of the purpose of the study and expressed their willingness (consent) to cooperate.

Attitude to labor was studied with Work-BAT method developed by J. Spence and A. Robbins [30] to identify the characteristics of attitude to labor most demanded by Industry 4.0: involvement, activity, satisfaction. The method was adapted: conjugate scales of non-involvement, passivity and aversion to work were singled out. Commitment to work was determined by equality or excess of respondents' score on each of three scales of 3.5 points out of 5 possible. Laziness was determined by equality or a lesser value of 2 points. Respondents answered the test questions after they completed internship.

To process statistical data we used non-parametric Mann – Whitney and Wilcoxon criteria, Spearman's calculation of rank correlation coefficients.

The results are shown in Tables 2–6.

Results

Data in Table 2 show that students are close to each other in terms of engagement.

Levels of activity demonstrate significant differences in almost all compared groups. Iranian students stand out from the crowd as their activity index is minimal.

Of particular interest for us is indicators showing pleasure from work, because emotions associated with work are its most important regulators. We can see that Iranian students are the least satisfied with labor, their emotions are mostly negative (3.01 points). Scores of Chinese and Russian students lie close.

⁵ Global Innovation Index 2021. Eds. S. Dutta, L.R. Leyn, S. Wunsch-Vincent. Cornell SC Johnson College of Business; 2021. Available at: https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2021.pdf (accessed 15.11.2021).

⁶ Zakharova L.N., Leonova I.S., Korobejnikova E.V. [Values Conflict and Psychological Vitality of Personnel of Russian Enterprises: A Monograph].

⁷ Cameron K.S., Quinn R.E. Diagnosing and Changing Organizational Culture Based on the Competing Values Framework. 3rd ed. San Francisco, CA: Jossey-Bass; 2011. Available at: <https://webuser.bus.umich.edu/cameronk/PDFs/Organizational%20Culture/CULTURE%20BOOK-CHAPTER%201.pdf> (accessed 15.11.2021).



Table 2. Attitude to labor among students from Chinese, Russian and Iranian industrial colleges

Country	Attitude to labor						
	Involvement	Activity	Pleasure	N of scores, total	Non-involvement	Passivity	Disgust
Russia	2.69	2.44	2.44	7.57	2.31	2.55	2.56
China	2.79	2.82	2.43	8.04	2.21	2.18	2.57
Iran	2.78	2.15	1.99	6.92	2.21	2.85	3.01
RY – C	–	T	–		–	T	–
U YC – I	–	**	**		–	*	*
YR – I	–	*	**		*	*	*

Notes. R – Russia, C – China, I – Iran; Y – young men, U – the Mann – Whitney rank sum test, * – $p \leq 0.05$; ** – $p \leq 0.01$, T – trend; – no statistically significant differences.

Studying into data on the percentage of students with high and low scores on attitude to labor (Table 3) gives us more detailed information. These data signal significant differences in attitude to labor among students in all three countries. The number of Russian students with high level of involvement is minimal – 12.5%. Chinese and Iranian students are much more involved and demonstrate approximately the same quantity – 25%. In terms of low involvement, Iranian male students are in the lead – 54.2%. Russian and Chinese ones have approximately the same low level of engagement, which, with Chinese students having double advantage in terms of high level of engagement, means that most Russians show an average level of engagement. Iranian students are polarized, most of them demonstrate non-involvement. Chinese students demonstrate a healthy balance, with a slightly higher proportion of moderately involved students and a third of uninvolved ones. Thus, in terms of high and middle-level engagement, Chinese students are in the lead.

As indicators of activity clearly show, low level of activity is characteristic of all students. The largest number of active

students is in Russian colleges, but at the same there are many passive students too – 43.8%. Iranian colleges demonstrate the lowest number of active students (6.8%). The activity of Chinese young people is represented by median values when compared across countries: they have fewer active students than Russians and significantly more than Iranian students. Thus, Russian students are quantitatively in the lead in terms of activity with reference to labor.

To explain why students from all three countries demonstrate different attitude to labor one should start by analyzing their perceptions of the future workplace, since these perceptions make up a strong motivating factor, and then move to comparing these perceptions with characteristics of their desirable workplaces.

Table 4 presents data on how students see organizational conditions of their real and desirable workplaces.

Russian students see both real and future place of work with dominating clan values and moderate innovative and market values. Hierarchical values are also moderate in the organizational conditions of their real workplace.

Table 3. Ratio of students with different levels of commitment to work values at colleges in Russia, China and Iran, %

Country	Involvement		Activity		Satisfaction	
	High	Low	High	Low	High	Low
Russia	12.5	37.5	31.3	43.8	25.0	31.3
China	25.0	34.4	21.9	28.1	18.8	25.0
Iran	24.4	54.2	6.8	44.4	7.2	43.2



Table 4. How college students from Russia, China and Iran perceive organizational culture of their real and desirable workplaces

Colleges	Perceptions of organizational culture of the company											
	Perceptions of real and desirable enterprise											
	Clan			Adhocracy (Innovativeness)			Market (business)			Hierarchy		
	Re	Des	W	Re	Des	W	Re	Des	W	Re	Des	W
Russia	32.1	35.7	*	21.6	23.0	–	23.2	22.7	–	23.2	18.3	*
China	27.2	25.9	–	21.7	21.9	–	25.2	26.1	–	25.7	26.0	–
Iran	18.7	30.1	**	23.6	27.6	*	26.8	17.6	**	31.1	24.7	*
U R–C	*	*	–	–	–	–	*	*	–	*	**	–
U R–I	*	*	–	*	*	–	*	*	–	*	**	–
U C–I	*	*	–	*	*	–	*	*	–	*	–	–

Notes. R – Russian colleges, C – Chinese colleges, I – Iranian colleges; Re – perceptions of OC of companies where college graduates are most likely to work in the future, Des – perceptions of OC of companies where college graduates would like to work, their desirable place of work; U – the Mann – Whitney rank sum test, W – Wilcoxon criteria; * – $p \leq 0.05$; ** – $p \leq 0.01$, T – trend; – no statistically significant differences.

In their desirable workplace, hierarchical values that determine, along with other things, work discipline and respect for technological regulations make up a mere 18%. This is the lowest value among students in all three countries. The prevalence of the clan component in OCs of both real and desirable workplaces explains both high level of activity and, in general, high level of pleasure, which is connected, according to test data, with work at a relatively poor level of students' engagement.

The respondents' answers to test questions are likely to contain value associations with clan OC, which explains management's tolerance to violations of work and technological discipline and possibility to resolve conflicts through interpersonal

interaction. These expectations almost fully coincide with the present and desirable OC of the colleges in which they studied. According to data presented in Table 5, Russian students, unlike Chinese and Iranian ones, have the most distinctive clan component in college OC, and their expectations are connected with bringing this component to full dominance (to 36%) with a corresponding decrease in the hierarchical component (to 18% from the already low 22%). Therefore, one should very cautiously treat data showing high level of activity and pleasure from work at a relatively low level of involvement. Most likely, these indexes can be explained by having an opportunity to build interpersonal relations and communication through work.

Table 5. Organizational culture in colleges from Russia, China and Iran and students' organizational and cultural preferences

Colleges	Components of college organizational culture											
	Clan			Adhocracy (Innovativeness)			Market (business)			Hierarchy		
	A	D	W	A	D	W	A	D	W	A	D	W
Russia	34.1	35.8	–	22.9	23.8	–	21.0	21.7	–	21.7	18,1	*
China	27.0	27.1	–	22.0	22.7	–	25.8	25.0	–	25.8	24.7	–
Iran	32.2	32.9	–	9.9	28.8	**	19.1	10.7	**	40.0	26.6	**
U R–C	*	**	–	–	–	–	*	*	–	*	*	–
U R–IC	–	T	–	*	*	–	–	*	–	*	*	–
U C–I	*	*	–	*	*	–	*	*	–	*	–	–

Notes. A – actual, D – desirable expression of the OC component; R – indexes in Russian, C – in Chinese and I – in Iranian colleges; U – the Mann – Whitney rank sum test, W – Wilcoxon criteria; * – $p \leq 0.05$; ** – $p \leq 0.01$, T – trend; – no statistically significant differences.

The data on Iranian students' expectations and preferences for their future workplaces show that they are expecting a strong deficit of clan values and the prevalence of hierarchical ones in their future workplaces. For them, this appears much worse than the situation in colleges. In colleges, the clan component is represented by 32%, which is sufficient for good psychological well-being, although students are dissatisfied with lack of innovativeness. And what is awaiting them, in their opinion, is a workplace with 19% on clan values, a high level of market and hierarchical values. Their expectations show a totally different picture: hierarchical-clan OC with a distinctive ad-hocracy component, but such OC seems unrealistic. This explains low levels of activity and pleasure, as expectations demotivate rather than motivate Iranian students. A relatively high level of engagement of every fourth young men, with a very high level of non-involvement of more than half of the students, confirms these facts. Perhaps, Iranian students are frightened by their unpreparedness to work in existing enterprises. This fact becomes even more visible in the context of innovative environment. In colleges, they see the share of innovative values at 10%, however, as they believe, they need 29%. In enterprises, the level of innovativeness, in their opinion, is significantly higher than in their colleges. Even in a real future workplace, this level is 24%

while at an unattainable desirable enterprise it is already 28%, higher than in China and Russia (according to Russian and Chinese students' assessments). Perhaps, Iranian students do not understand it when they make their emotional assessments.

China has developed a very balanced OC model. The scores of OC about perceiving real and desirable workplaces look similar, and so do characteristics of OCs in their industrial colleges. Data from Chinese respondents seem to be the most consistent with their attitude to labor. Moderate activity and emotional evaluations speak for good, conscious, will-powered self-regulation, which is necessary in their work and which contains many other things, not supported by emotions of pleasure.

The analysis of correlations between indicators of attitude to labor and the specifics of organizational culture of their desirable workplaces is presented in Table 6.

The level of involvement among Russian students does not relate to value characteristics of the OC of their desirable workplace. It is important to note that the expected level of clan values does not affect their engagement to work. This fact once again underlines the importance of clan values in the respondents' non-employment relations, thus, their potential employer should be aware of it. Clan values create a high level of subjective well-being, but this does not affect work either positively or negatively.

Table 6. Correlations between characteristics of the organizational culture of their desirable workplaces and indicators of attitude to labor among industrial college students

Indicators of attitude to labor	Value components of the organizational culture of a desirable workplace				
	Country of colleges	Clan	Adhocracy (Innovativeness)	Market (business)	Hierarchy
Involvement	Russia	-.033	.136	.050	-.109
	China	-.186	-.518**	-.049	.565**
	Iran	-.205	.200	-.197	-.107
Activity	Russia	-.020	-.037	.050	.300*
	China	.007	-.421*	-.043	.386*
	Iran	.009	.336*	.304*	.146
Pleasure	Russia	-.010	.017	-.119	.157
	China	-.109	-.315*	-.006	.379*
	Iran	.156	.310*	-.176	-.106

Notes. * – $p \leq 0.05$; ** – $p \leq 0.01$.

It is interesting to note the negative correlation between involvement and adhocracy among Chinese students ($r = -.518$, $p \leq 0.01$). In an innovative economy, mastering innovative technologies in production and then adopting them in management seem to be associated with high personal costs for respondents. Chinese students' involvement depends on the level of hierarchy ($r = .565$, $p \leq 0.01$). Certainty, although largely associated with a loss of autonomy in decision-making, significantly contributes to engagement, although it deprives employees of some positive emotions.

Iranian students, as well as Russian ones, do not demonstrate significant connections with the characteristics of OC.

We have revealed some connections between activity and value components of the OC of desirable workplaces, except for Russians. We have also discovered some interesting data on Chinese and Iranian colleges. Chinese students decrease their activity when the adhocratic component of OC increases and increase their activity when the hierarchical component increases. This might be explained by the fact that hierarchical OC requires obedience. It is easier than to show your own activity. Iranians demonstrate different connections. Unlike Chinese students, Iranians are ready to increase activity as the adhocratic and market components of OC grow which means that Iranian students have more idealistic perceptions about market-innovative OC. They seem to treat it as a much more stimulating activity as compared with Chinese students who experience strong demand for such OC.

When analyzing correlations between pleasure and OC of the desirable workplace, it is worth mentioning that Chinese students already demonstrate expected negative connections between pleasure and adhocracy, which confirms great psychological costs associated with work in an innovative environment. We have also found that pleasure grows with an increase in hierarchicality, which also confirms that Chinese students choose the prevalence of the hierarchical component in their desirable jobs, which growth, manifesting itself in improved stability, predictability and certainty, will boost their pleasure from work.

Data on Chinese students, who are more likely to encounter VUCA environment in industrial enterprises, proves how much this type of environment may be psychologically difficult for them and is not rejected just by understanding its necessity.

Data from Iranian students show that, unlike Chinese students, they, on the contrary, anticipate an increase in pleasure ($r = .310$, $p \leq 0.05$) along with an increase in the adhocratic component.

Discussion and Conclusion

Attitudes toward labor differ among students in Russian, Chinese and Iranian industrial colleges. It reveals the specifics of the culture and development of the country's economy. Chinese colleges produce the highest quantity of highly and moderately engaged students (65.6%). They combine involvement with an average level of activity and pleasure from work. As for Iranian students, 45.8% of them are involved in work. They are characterized by a low level of activity and pleasure from work. In Russian industrial colleges the quantity of highly and moderately involved students is 12.5 and 62.5% respectively. Only a third of the students interviewed demonstrate high activity and a fourth enjoy pleasure from work. However, Russian college students have poor knowledge about organizational conditions of innovative enterprises, they treat as such prevailing clan values and weakening of hierarchical values. No significant correlations between value characteristics of the desirable workplace and indicators of attitude to labor were found, which shows that the data obtained with the questionnaire most likely refers to interpersonal realities of the clan model with a weakening hierarchical component of OC.

Iranian students do not see prospects of employment in innovative enterprises, they evaluate their current OC in colleges as unfavorable, with a strong deficit of innovativeness. They also link their attitude to labor with the possibility to increase activity if the market component of OC grows or if they become more satisfied by participating in strengthening innovative processes.

Chinese colleges have developed a harmonious organizational culture rather than



a market-innovative one. In terms of its characteristics, it is close to the OC of Chinese students' desirable places of work. Chinese students, when they describe organizational conditions of their desirable workplace, do not link increasing innovativeness of a company with an increase in their own engagement and the degree of pleasure from work. On the contrary, they associate both involvement, activity and pleasure from work with strengthening the hierarchical component in the OC. This shows that VUCA environment of an industrial enterprise, for which Chinese students are preparing themselves and want to work in, seems to them very uncomplicated and probably stressful, as they consider stability, certainty and strong managerial control of the hierarchical component of OC more suitable for them.

The results of the study showed that development of proactive organizational socialization programs is actual for students in Chinese, Iranian and Russian industrial colleges, however, one need to take into account the country's specifics. Moreover, the experience of training students in Chinese colleges may be useful in Russian conditions, where lack of both knowledge and value readiness to work in a market environment can result in a much stronger negative rejection effect than that of Chinese students, who tend to be ready to follow a given

course and endure difficulties at the expense of conscious self-regulation. Russian students should be given opportunities to enjoy self-actualization in a psychologically complex market dynamic environment with characteristics of uncertainty. The experience of training students in Iranian colleges signals about one more possible problem. Reducing uncertainty in today's environment leads to a sense of futility due to lagging behind the evolving reality.

Therefore, Russian colleges need to start managing the level of technological and psychological certainty in order to prevent shocks from organizational environment at would-be enterprises for psychologically unprepared graduates. Relevant tasks include development and implementation of programs to form not only value readiness to work in the appropriate type of organizational culture, but also knowledge of organizational conditions of modern enterprise, competencies of readiness to work in VUCA environment, being able to anticipate the difficulties caused by situations of natural external and organizational uncertainty, to learn and work in such conditions, as well as to develop skills of conscious volitional self-regulation. This, in turn, requires training for teachers who should be able to solve complex tasks of proactive socialization in turbulent conditions.

REFERENCES

1. Kergrouch S. Industry 4.0: New Challenges and Opportunities for the Labour Market. *Foresight and STI Governance*. 2017;11(4):6–8. doi: <https://doi.org/10.17323/2500-2597.2017.4.6.8>
2. Fossen F., Sorgner A. Mapping the Future of Occupations: Transformative and Destructive Effects of New Digital Technologies on Jobs. *Foresight and STI Governance*. 2019;13(2):10–18. doi: <https://doi.org/10.17323/2500-2597.2019.2.10.18>
3. Johansen B., Euchner J. Navigating the VUCA World. *Research-Technology Management*. 2013;56(1):10–15. doi: <https://doi.org/10.5437/08956308X5601003>
4. Rossenberg Y.G.T. van, Klein H.J., Asplund K., Bentein K., Breitsohl H., et al. The Future of Workplace Commitment: Key Questions and Directions. *European Journal of Work and Organizational Psychology*. 2018;27(2):153–167. doi: <https://doi.org/10.1080/1359432X.2018.1443914>
5. Stein S. Reimagining Global Citizenship Education for a Volatile, Uncertain, Complex, and Ambiguous (VUCA) World. *Globalisation, Societies and Education*. 2021;19(4):482–495. doi: <https://doi.org/10.1080/14767724.2021.1904212>
6. Pryaznikov N.S. Promising Areas of Professional Education Development. *Problemy teorii i praktiki upravleniya*. 2020;(8):84–94. Available at: <https://ptpmag.ru/perspektivnye-napravleniya-razvitiya-sistemy-professionalnogo-obrazovaniya> (accessed 10.09.2021).
7. Temnitskiy A.L. [Attitudes to Labor of Young Industrial Workers in the Soviet and Post-Soviet Periods]. *Sotsiologicheskiy zhurnal*. 2003;(4):66–85. Available at: <https://cyberleninka.ru/article/n/>

otnoshenie-k-trudu-molodyh-rabochih-promyshlennyh-predpriyatij-v-sovetskiy-i-postsovetskiy-periody/viewer (accessed 10.11.2021). (In Russ.)

8. Kalinowska-Sufinowicz B. Determinants of the Situation of the Youth on the Labor Market. *Tyumen State University Herald. Social, Economic, and Law Research*. 2018;4(4):8–23. doi: <https://doi.org/10.21684/2411-7897-2018-4-4-8-23>

9. Rozhkova L.V., Vlazneva S.A., Salnikova O.V., Dubina A.Sh. Labor Values and Orientations of Modern Youth in Conditions of Crisis and Instability. *Sociodynamics*. 2019;(1):70–80. Available at: https://nbpublish.com/library_read_article.php?id=28758 (accessed 10.09.2021). (In Russ., abstract in Eng.)

10. Abdullin A.G., Likholetov V.V., Ryabova I.G. Self-Determination and Self-Realization of the Youth of Russia: Socio-Moral and Psychological-Pedagogical Aspects of the Problem. *Integration of Education*. 2021;25(3):440–462. (In Russ., abstract in Eng.) doi: <https://doi.org/10.15507/1991-9468.104.025.202103.440-462>

11. Mandrikova E.Yu., Safullina E.R. The Role of Person – Organization Fit in the formation of Company’s Human Capital. *Organizational Psychology – Russia*. 2013;3(4):2–17. Available at: https://orgpsyjournal.hse.ru/data/2014/05/02/1322443526/OrgPsy_2013-4-2.pdf (accessed 10.11.2021). (In Russ., abstract in Eng.)

12. Fetherston M. Information Seeking and Organizational Socialization: A Review and Opportunities for Anticipatory Socialization Research. *Annals of the International. Communication Association*. 2017;41(3-4):258–277. doi: <https://doi.org/10.1080/23808985.2017.1374198>

13. Aldasheva A.A., Melnikova N.G., Runets O.V. Personnel Selection Problems in VUCA-World. *Institut Psikhologii Rossiyskoy Akademii Nauk. Organizatsionnaya Psikhologiya i Psikhologiya Truda*. 2019;4(4):82–96. Available at: <http://work-org-psychology.ru/engine/documents/document504.pdf> (accessed 10.11.2021). (In Russ., abstract in Eng.)

14. Potočník K., Anderson N.R., Born M., Kleinmann M., Nikolaou I. Paving the Way for Research in Recruitment and Selection: Recent Developments, Challenges and Future Opportunities. *European Journal of Work and Organizational Psychology*. 2021;30(2):159–174. (In Russ., abstract in Eng.) doi: <https://doi.org/10.1080/1359432X.2021.1904898>

15. Zakharaova L.N., Savicheva A.V. Rating of Psychological Readiness of Industrial College Students to Work in the Organizational Conditions of Industry 4.0. *Srednee professional’noe obrazovanie*. 2022;(3):50–55. URL: <https://www.elibrary.ru/item.asp?id=48438785> (accessed 20.06.2022). (In Russ., abstract in Eng.)

16. Lopatina M.V., Leonova L.A., Travkin P.V., Roshchin S.Yu., Rudakov V.N. [Graduates of Secondary Vocational and Higher Education in the Russian Labor Market: Information Bulletin]. Moscow: HSE University Publ.; 2020. (In Russ.) doi: <https://doi.org/10.17323/978-5-7598-2195-3>

17. Klyachko T.L., Semionova E.A. Transition to Employment: Graduates of the Vocational Education System. *Ekonomicheskaya politika*. 2018;13(2):100–125. Available at: <https://cyberleninka.ru/article/n/trudoustroystvo-vypusknikov-sistemy-srednego-professionalnogo-obrazovaniya/viewer> (accessed 22.06.2022). (In Russ., abstract in Eng.)

18. Stepanov A.A. Analysis of the Employers Satisfaction with the Quality of Personnel Training in the Russian Federation. *Ars Administrandi*. 2018;10(4):531–547. (In Russ., abstract in Eng.) doi: <https://doi.org/10.17072/2218-9173-2018-4-531-547>

19. Avanesian G.A., Borovskaya M.A., Ryzhova V.S., Kirik V.A., Egorova V.A., Bermous A.G. Can We Improve Learning Outcomes of Schoolchildren from the Poorest Families by Investing into Their Non-Cognitive Skills? Causal Analysis Using Propensity Score Matching. *Voprosy obrazovaniya*. 2022;(1):13–53. (In Russ., abstract in Eng.) doi: <https://doi.org/10.17323/1814-9545-2022-1-13-53>

20. Mahfud T., Mulyani Y., Setyawati R., Kholifah N. The Influence of Teaching Quality, Social Support, and Career Self-Efficacy on the Career Adaptability Skills: Evidence from a Polytechnic in Indonesia. *Integration of Education*. 2022;26(1):27–41. doi: <https://doi.org/10.15507/1991-9468.106.026.202201.027-041>

21. Maltseva V.A., Shabalin A.I. The Non-Bypass Trajectory, or The Boom in Demand for TVET in Russia. *Voprosy obrazovaniya*. 2021;(2):10–42. (In Russ., abstract in Eng.) doi: <https://doi.org/10.17323/1814-9545-2021-2-10-42>

22. Zakharaova L.N., Leonova I.S. Subjective Well-Being of the Personnel of Enterprises with Different Involvement in Innovation Processes: The Age Aspect. *Vestnik Universiteta*. 2020;(2):186–193. (In Russ., abstract in Eng.) doi: <https://doi.org/10.26425/1816-4277-2020-2-186-193>

23. Canzittu D. A Framework to Think School and Career Guidance in a VUCA World. *British Journal of Guidance & Counselling*. 2022;50(2):249–259. doi: <https://doi.org/10.1080/03069885.2020.1825619>

24. Duchek S. Organizational Resilience: A Capability-Based Conceptualization. *Business Research*. 2020;13:215–246. doi: <https://doi.org/10.1007/s40685-019-0085-7>

25. Pingel R., Fay D., Urbach T. A Resources Perspective on When and How Proactive Work Behaviour Leads to Employee Withdrawal. *Journal of Occupational and Organizational Psychology*. 2019;92(2):410–435. doi: <https://doi.org/10.1111/joop.12254>



26. Yagil D., Oren R. Servant Leadership, Engagement, and Employee Outcomes: The Moderating Roles of Proactivity and Job Autonomy. *Journal of Work and Organizational Psychology*. 2021;37(1):58–65. doi: <https://doi.org/10.5093/JWOP2021A1>

27. Grachev A.A. Organizational Culture and Viability of the Employee as Factors of Efficiency of Interaction of the Organization with VUCA Environment. *Institut Psikhologii Rossiyskoy Akademii Nauk. Organizatsionnaya Psikhologiya i Psikhologiya Truda*. 2019;4(2):29–43. Available at: <http://work-org-psychology.ru/engine/documents/document454.pdf> (accessed 20.09.2021). (In Russ., abstract in Eng.)

28. Zakharova L.N., Shilova L.N., Gadbedzhi Z., Chzhu L. The Organizational Cultures of Industrial Vocational Schools and Enterprises in Russia, China, and Iran as Perceived by Students and Teachers. *Voprosy obrazovaniya*. 2020;(3):234–254. doi: <https://doi.org/10.17323/1814-9545-2020-3-234-254>

29. Zaharova L.N., Chzhu L., Gadbedzhi Z. [Values Readiness to Work in the Organizational Conditions of a Modern Enterprise among College Students of Russia, China, and Iran: A Comparative Analysis]. *Srednee professional'noe obrazovanie*. 2020;(3):45–51. Available at: <https://elibrary.ru/item.asp?id=42909923> (accessed 20.09.2021). (In Russ.)

30. Spence J.T., Robbins A.S. Workaholism – Definition, Measurement, and Preliminary Results. *Journal of Personality Assessment*. 1992;58(1):160–178. doi: https://doi.org/10.1207/s15327752jpa5801_15

Submitted 24.04.2022; approved after reviewing 06.06.2022; accepted for publication 14.06.2022.

About the authors:

Lyudmila N. Zakharova, Head of Department of Management Psychology, National Research Lobachevsky State University of Nizhny Novgorod (23 Gagarin Ave., Nizhny Novgorod 603022, Russian Federation), Dr.Sci. (Psychol.), Professor, ORCID: <https://orcid.org/0000-0002-8244-2114>, Scopus ID: 56964791900, Researcher ID: T-2222-2017, zlnnnov@mail.ru

Zaretkhan H. Saralieva, Professor of the Department of General Sociology and Social Work, National Research Lobachevsky State University of Nizhny Novgorod (23 Gagarin Ave., Nizhny Novgorod 603022, Russian Federation), Dr.Sci. (History), Professor, ORCID: <https://orcid.org/0000-0002-4825-1584>, Scopus ID: 56112722400, zara@fsn.unn.ru

Zahra Ghadbeigi, PhD student of the Department of Management Psychology, National Research Lobachevsky State University of Nizhny Novgorod (23 Gagarin Ave., Nizhny Novgorod 603022, Russian Federation), ORCID: <https://orcid.org/0000-0001-8229-5006>, z.ghadbeigi@gmail.com

Liuchuan Zhu, M.A. in Psychology of the Department of Management Psychology, National Research Lobachevsky State University of Nizhny Novgorod (23 Gagarin Ave., Nizhny Novgorod 603022, Russian Federation), ORCID: <https://orcid.org/0000-0002-4396-3451>, 1204003453@qq.com

Contribution of the authors:

L. N. Zakharova – development of the concept, methodology and design of the empirical part of the study; data collection in Russian industrial colleges; data processing; results analysis.

Z. H. Saralieva – concept development; data analysis; text editing.

Z. Ghadbeigi – literature review; data collection in Iranian industrial colleges; statistical data processing; analysis of results.

L. Zhu – literature review, data collection of industrial colleges in the PRC; statistical processing of data; analysis of results.

All authors have read and approved the final manuscript.

СПИСОК
ИСПОЛЬЗОВАННЫХ ИСТОЧНИКОВ

1. Kergrouch S. Industry 4.0: New Challenges and Opportunities for the Labour Market // *Foresight and STI Governance*. 2017. Vol. 11, no. 4. P. 6–8. doi: <https://doi.org/10.17323/2500-2597.2017.4.6.8>

2. Fossen F., Sorgner A. Mapping the Future of Occupations: Transformative and Destructive Effects of New Digital Technologies on Jobs // *Foresight and STI Governance*. 2019. Vol. 13, no. 2. P. 10–18. doi: <https://doi.org/10.17323/2500-2597.2019.2.10.18>

3. Johansen B., Euchner J. Navigating the VUCA World // *Research-Technology Management*. 2013. Vol. 56, issue 1. P. 10–15. doi: <https://doi.org/10.5437/08956308X5601003>

4. The Future of Workplace Commitment: Key Questions and Directions / Y. G. T. van Rossenberg [et al.] // *European Journal of Work and Organizational Psychology*. 2018. Vol. 27, issue 2. P. 153–167. doi: <https://doi.org/10.1080/1359432X.2018.1443914>
5. Stein S. Reimagining Global Citizenship Education for a Volatile, Uncertain, Complex, and Ambiguous (VUCA) World // *Globalisation, Societies and Education*. 2021. Vol. 19, issue. 4. P. 482–495. doi: <https://doi.org/10.1080/14767724.2021.1904212>
6. Пряжников Н.С. Перспективные направления развития профессионального образования // *Проблемы теории и практики управления*. 2020. № 8. С. 84–94. URL: <https://ptpmag.ru/perspektivnye-napravleniya-razvitiya-sistemy-professionalnogo-obrazovaniya> (дата обращения: 10.09.2021).
7. Темницкий А. Л. Отношение к труду молодых рабочих промышленных предприятий в советский и постсоветский периоды // *Социологический журнал*. 2003. № 4. С. 66–85. URL: <https://cyberleninka.ru/article/n/otnoshenie-k-trudu-molodyh-rabochih-promyshlennyh-predpriyatij-v-sovetskiy-i-postsovetskiy-periody/viewer> (дата обращения: 10.11.2021).
8. Kalinowska-Sufinowicz B. Determinants of the Situation of the Youth on the Labor Market // *Tyumen State University Herald. Social, Economic, and Law Research*. 2018. Vol. 4, no. 4. P. 8–23. doi: <https://doi.org/10.21684/2411-7897-2018-4-4-8-23>
9. Трудовые ценности и ориентации современной молодежи в условиях кризиса и нестабильности / Л. В. Рожкова [и др.] // *Социодинамика*. 2019. № 1. С. 70–80. URL: https://nbpublish.com/library_read_article.php?id=28758 (дата обращения: 10.09.2021).
10. Абдуллин А. Г., Лихолетов В. В., Рябова И. Г. Самоопределение и самореализация молодежи России: социально-нравственные и психолого-педагогические аспекты проблемы // *Интеграция образования*. 2021. Т. 25, № 3. С. 440–462. doi: <https://doi.org/10.15507/1991-9468.104.025.202103.440-462>
11. Мандрикова Е. Ю., Сафиуллина Э. Р. Роль соответствия личности организации (person–organization fit) в формировании человеческого капитала организации // *Организационная психология*. 2013. Т. 3, № 4. С. 2–17. URL: https://orgpsyjournal.hse.ru/data/2014/05/02/1322443526/OrgPsy_2013-4-2.pdf (дата обращения: 10.11.2021).
12. Fetherston M. Information Seeking and Organizational Socialization: A Review and Opportunities for Anticipatory Socialization Research // *Annals of the International. Communication Association*. 2017. Vol. 41, issue 3-4. P. 258–277. doi: <https://doi.org/10.1080/23808985.2017.1374198>
13. Алдашева А. А., Мельникова Н. Г., Рунец О. В. Проблемы подбора персонала в условиях VUCA-среды // *Институт психологии Российской академии наук. Организационная психология и психология труда*. 2019. Т. 4, № 4. С. 82–96. URL: <http://work-org-psychology.ru/engine/documents/document504.pdf> (дата обращения: 10.11.2021).
14. Paving the Way for Research in Recruitment and Selection: Recent Developments, Challenges and Future Opportunities / K. Potočnik [et al.] // *European Journal of Work and Organizational Psychology*. 2021. Vol. 30, issue 2. P. 159–174. doi: <https://doi.org/10.1080/1359432X.2021.1904898>
15. Захарова Л. Н., Савичева А. В. Рейтинг готовности студентов промышленных колледжей к работе в организационных условиях Индустрии 4.0 // *Среднее профессиональное образование*. 2022. № 3. С. 50–55. URL: <https://www.elibrary.ru/item.asp?id=48438785> (дата обращения: 20.06.2022).
16. Выпускники среднего профессионального и высшего образования на российском рынке труда: информационный бюллетень / М. В. Лопатина [и др.] ; под науч. ред. С. Ю. Рощина, В. Н. Рудакова. М. : Изд. дом Высшей школы экономики, 2020. 72 с. doi: <https://doi.org/10.17323/978-5-7598-2195-3>
17. Клячко Т. Л., Семионова Е. А. Трудоустройство выпускников системы среднего профессионального образования // *Экономическая политика*. 2018. Т. 13, № 2. С. 100–125. URL: <https://cyberleninka.ru/article/n/trudoustroystvo-vypusknikov-sistemy-srednego-professionalnogo-obrazovaniya/viewer> (дата обращения: 22.06.2022).
18. Степанов А. А. Анализ удовлетворенности работодателей качеством подготовки рабочих кадров в Российской Федерации // *Ars Administrandi (Искусство управления)*. 2018. Т. 10, № 4. С. 531–547. doi: <https://doi.org/10.17072/2218-9173-2018-4-531-547>
19. Можно ли улучшить успеваемость школьников из беднейших семей, инвестируя в их некогнитивные навыки? Каузальный анализ методом сопоставления мер склонности / К. А. Аванесян [и др.] // *Вопросы образования*. 2022. № 1. С. 13–53. doi: <https://doi.org/10.17323/1814-9545-2022-1-13-53>
20. The Influence of Teaching Quality, Social Support, and Career Self-Efficacy on the Career Adaptability Skills: Evidence from a Polytechnic in Indonesia / T. Mahfud [et al.] // *Интеграция образования*. 2022. Т. 26, № 1. С. 27–41. doi: <https://doi.org/10.15507/1991-9468.106.026.202201.027-041>
21. Мальцева В. А., Шабалин А. И. Необходимый маневр, или бум спроса на среднее профессиональное образование в России // *Вопросы образования*. 2021. № 2. С. 10–42. doi: <https://doi.org/10.17323/1814-9545-2021-2-10-42>



22. Захарова Л. Н., Леонова И. С. Субъективное благополучие персонала предприятий с разной вовлеченностью в инновационные процессы: возрастной аспект // Вестник Университета. 2020. № 2. С. 186–193. doi: <https://doi.org/10.26425/1816-4277-2020-2-186-193>
23. Canzittu D. A Framework to Think School and Career Guidance in a VUCA World // British Journal of Guidance & Counselling. 2022. Vol. 50, issue 2. P. 249–259. doi: <https://doi.org/10.1080/03069885.2020.1825619>
24. Duchek S. Organizational Resilience: A Capability-Based Conceptualization // Business Research. 2020. Vol. 13. P. 215–246. doi: <https://doi.org/10.1007/s40685-019-0085-7>
25. Pingel R., Fay D., Urbach T. A Resources Perspective on When and How Proactive Work Behaviour Leads to Employee Withdrawal // Journal of Occupational and Organizational Psychology. 2019. Vol. 92, issue 2. P. 410–435. doi: <https://doi.org/10.1111/joop.12254>
26. Yagil D., Oren R. Servant Leadership, Engagement, and Employee Outcomes: The Moderating Roles of Proactivity and Job Autonomy // Journal of Work and Organizational Psychology. 2021. Vol. 37, no. 1. P. 58–65. doi: <https://doi.org/10.5093/JWOP2021A1>
27. Грачев А. А. Организационная культура и жизнеспособность работника как факторы эффективности взаимодействия организации с VUCA-средой // Институт психологии Российской академии наук. Организационная психология и психология труда. 2019. Т. 4, № 2. С. 29–43. URL: <http://work-org-psychology.ru/engine/documents/document454.pdf> (дата обращения: 20.09.2021).
28. Организационная культура индустриальных колледжей и предприятий России, Китая и Ирана в оценках студентов и преподавателей / Л. Н. Захарова [и др.] // Вопросы образования. 2020. № 3. С. 234–254. doi: <https://doi.org/10.17323/1814-9545-2020-3-234-254>
29. Захарова Л. Н., Чжу Л., Гадбеджи З. Ценностная готовность к работе в организационных условиях современного предприятия студентов колледжей России, Китая и Ирана: сравнительный анализ // Среднее профессиональное образование. 2020. № 3 (295). С. 45–51. URL: <https://elibrary.ru/item.asp?id=42909923> (дата обращения: 20.09.2021).
30. Spence J.T., Robbins A.S. Workaholism – Definition, Measurement, and Preliminary Results. *Journal of Personality Assessment*. 1992. Vol. 58, issue 1. P. 160–178. doi: https://doi.org/10.1207/s15327752jpa5801_15

Поступила 24.04.2022; одобрена после рецензирования 06.06.2022; принята к публикации 14.06.2022.

Об авторах:

Захарова Людмила Николаевна, заведующий кафедрой психологии управления Национального исследовательского Нижегородского государственного университета им. Н. И. Лобачевского (603022, Российская Федерация, г. Нижний Новгород, пр-т Гагарина, д. 23), доктор психологических наук, профессор, ORCID: <https://orcid.org/0000-0002-8244-2114>, Scopus ID: 56964791900, Researcher ID: T-2222-2017, zlnnnov@mail.ru

Саралиева Зарэтхан Хаджи-Мурзаевна, профессор кафедры общей социологии и социальной работы Национального исследовательского Нижегородского государственного университета им. Н. И. Лобачевского (603022, Российская Федерация, г. Нижний Новгород, пр-т Гагарина, д. 23), доктор исторических наук, профессор, ORCID: <https://orcid.org/0000-0002-4825-1584>, Scopus ID: 56112722400, zara@fsn.unn.ru

Гадбеджи Захра, аспирант кафедры психологии управления Национального исследовательского Нижегородского государственного университета им. Н. И. Лобачевского (603022, Российская Федерация, г. Нижний Новгород, пр-т Гагарина, д. 23), ORCID: <https://orcid.org/0000-0001-8229-5006>, z.ghadbeigi@gmail.com

Чжу Лиучуан, магистр психологии кафедры психологии управления Национального исследовательского Нижегородского государственного университета им. Н. И. Лобачевского (603022, Российская Федерация, г. Нижний Новгород, пр-т Гагарина, д. 23), ORCID: <https://orcid.org/0000-0002-4396-3451>, 1204003453@qq.com

Заявленный вклад авторов:

Л. Н. Захарова – разработка концепции, методологии и дизайна эмпирической части исследования; сбор данных в российских индустриальных колледжах; обработка данных; анализ результатов.

З. Х. Саралиева – разработка концепции; анализ данных; структурирование текста.

З. Гадбеджи – анализ литературы; сбор данных в иранских индустриальных колледжах; статистическая обработка данных; анализ результатов.

Л. Чжу – анализ литературы; сбор данных индустриальных колледжах КНР; статистическая обработка данных; анализ результатов.

Все авторы прочитали и одобрили окончательный вариант рукописи.