

# The dynamics of personal potential of students learning at the pedagogical university in the metropolis and the regional center

## Abstract

The main aim of this study is to assess the dynamics of students' personal qualities in the process of studying at a university from the first to the fourth year in a megacity at the Novosibirsk State Pedagogical University and its branch in the regional center of Kuibyshev. A study of the personal characteristics of female students of the 1st and the 4th courses (n=201) studying in the natural sciences and humanities was performed. The following methods were used to characterize the personal potential: Personality self-determination, Life satisfaction, Self-Organization activity, the Viability, Quality of life and satisfaction. The results indicate that there are significant differences in the dynamics of indicators of the personal potential of female students of the NSPU for the period of study, depending on the characteristics of the socio-pedagogical environment of universities in the metropolis and regional center. Students studying in metropolis have the higher level almost of all mentioned parameters of personal potential than girls studying at the regional University branch. The specificity of such differences is associated with a change in the psychosocial status of students during the period of study at the university due to the influence of both positive and negative social and environmental, economic and cultural factors.

**Keywords:** metropolis, pedagogical, personal potential, psychosocial potential, self-realization

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Roman Aizman,<sup>1</sup> Igor Galay,<sup>2</sup> Alexey Lebedev<sup>1</sup>

<sup>1</sup>Department of Anatomy, Physiology & Life Safety, Novosibirsk State Pedagogical University, Russia

<sup>2</sup>Department of Physical Culture, Novosibirsk State Pedagogical University, Russia

**Correspondence:** Aizman Roman, Doctor of Biological Sciences, Professor, Honored worker of science of the Russian Federation, Head of the Department of Anatomy, Physiology and Life Safety, Novosibirsk State Pedagogical University, Russia, Tel +79139119564, Email [aizman.roma@yandex.ru](mailto:aizman.roma@yandex.ru)

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## Introduction

The significance and responsibility of the state's education system is traditionally considered not only as an indicator of socio-economic level and cultural development of society, but also as a base for the intellectual, social and personal growth of the young generation. Reforming the modern pedagogical system, restructuring its priorities, introducing new educational standards, demand a new higher level of requirements for the quality of high education, the readiness of university graduates for full-fledged life and professional activities in the context of modern social challenges. At the same time, the significant changes in the qualitative composition of students, insufficient funding of the higher pedagogical school and the tendency to view the education system as a service sector inevitably lead to a decline in the teacher's social status, loss of prestige of pedagogical education, and outflow of intellectual youth from the pedagogical industry.<sup>1</sup> Thus, the problem of timely assessment of the psychosocial potential of university students and the development of an appropriate strategy for its implementation may be a key factor in resolving existing contradictions and an effective tool for improving the quality of education and the socio-psychological adaptation of students in higher education.<sup>2,3</sup>

Despite the fact, that the influence of intellectual potential on academic achievement is reasonably regarded as an important prerequisite for successful professional activity, many authors consider the personal qualities and psychological health to be the determining factors in achieving successful activity in general.<sup>4-7</sup> Firstly, modern

graduates of higher education institutions present not so much with the requirements for a ready-made set of professionally significant personal qualities, as with the ability to adapt and "grow" in the profession. In addition, it is obvious that the ability to analyze their activities, quickly construct professional skills and develop new professional zones is possible only by updating the psychosocial qualities.<sup>8</sup> That is why the greatest interest, in the context of disclosing the psychosocial development of students, is the study the developmental level and realization of the psycho-physiological and personal potential, as the determining factors of students' readiness not only to master, but also to develop the pedagogical system as an environment for subsequent professional success. In the literature, psychosocial personality traits and methods for assessing the characteristics of psycho-physiological and personal development are described in sufficient details,<sup>9,10</sup> at the same time, the dependence of these parameters on the specifics of the educational and socio-cultural environment requires further study. This work is devoted to the description of a psychosocial "portrait" of pedagogical university graduates living in a metropolis and a district center.

Professional success is the result of self-realization in the profession, ensuring high social status, financial security, career advancement. Professional success is one of the most important components of human development and socialization<sup>11</sup> and depends on many determinants: professional knowledge, skills and individual qualities, among which the ability to use one's personal potential is one of the determining factors.<sup>12</sup>

Upon receipt of vocational education, students are assessed on exams and tests by the level of demonstrated knowledge and skills, less often by methodological and practical skills, and the personal qualities of a graduate's preparedness for professional work go into the background. At the same time, the long-term practice confirms that the value of a specialist, his professional success depends on his confidence, activity, self-organization, ability to manage his emotions, adaptability to environmental conditions. All these qualities and the possibility of their implementation in professional activities, according to research by Russian and foreign authors, largely depend on the level of human self-esteem.<sup>13–20</sup> Thus, in the process of studying at a university, students must form not only narrow professional qualities, develop intelligence, but also socially adapt to changing environmental conditions, developing individual psychological resources. As a rule, it is the presence of high personal potential that can ensure, if necessary, the mobilization of intellectual, creative and other types of activity, contributing to the achievement of productivity and productivity of activities.<sup>21</sup>

In our research, we relied on the concept of personal potential of D.A. Leontiev. From his point of view, personality should be considered as an integral higher mental function, and by personal potential it is necessary to understand the systemic organization of personal characteristics that form the “core of personality” and reflect the level of personal maturity. By definition, of D.A. Leontiev, personal potential is an integral characteristic of the individual psychological characteristics of a person, which is the basis of his ability to proceed from stable internal criteria and guidelines in his life and to maintain the stability of activity and semantic orientations against the background of pressures and changing external conditions; the characteristic reflecting “a measure of overcoming by the person of the set circumstances, eventually, overcoming by the person itself”. Following DA Leontiev, to the criteria of personal potential, we attribute indicators of resilience, self-organization of activity, self-determination of personality and satisfaction with life. In addition, in our opinion, in order to predict the individual characteristics of a person, it is important to take into account the system of basic beliefs that he has developed and his career orientations, which stimulate activity.

In literary sources, the dynamics of indicators of students' personal potential during the period of study at the university and the specificity of their reaction to the influence of social, environmental

and psychophysiological factors<sup>22,23</sup> presents still insufficiently. In addition, the problem of the outflow of promising youth and qualified personnel from the education system remains relevant, this tendency is particularly acute in the province, due to the cultural and economic backwardness of regional centers.<sup>24</sup> In this regard, it was of great interest to us to assess the dynamics of students' personal qualities in the process of studying at a university from one to four years in a megacity and small city.

## Materials and methods

At the first stage of work at the Novosibirsk State Pedagogical University and its branch in the regional center of Kuibyshev, we conducted a study of the personal characteristics of female students of the 1st and 4th courses (n=201) studying in the natural sciences and humanities. The following methods were used to characterize the personal potential: “Personality self-determination scale (B. Sheldon; in adaptation and modification E.N. Osina, 2007)”, “Life satisfaction scale” (E. Diener 1985; in adaptation D.A. Leontiev, E.N. Osina, 2005), “Activity Self-Organization Questionnaire” (E.Yu. Mandrikova, 2007), “Viability Test” (S. Muddy 2002, modified by D.A. Leontiev and E.I. Rasskazova, option E.N. Osina 2006), “Questionnaire of the quality of life and satisfaction” (M. Ritner in the adaptation of EI Rasskazova 2012), as well as the personal questionnaire of the quarries Career Anchors' Orientations (E. Shane in the Adaptation of V.A. Chiker, VE Vinokurova 2012).<sup>25</sup> For data analysis, descriptive statistics methods were used (Student's t-test). Main calculations were performed using the Statistics 7.0 software package and were considered significant at  $p \leq 0.05$ .

## The results of the study

Of great importance for the successful psychosocial adaptation of students, the formation of conditions for personal growth and the implementation of the objectives have the ability of young people to rational organization of life. The results obtained when testing the subjects on a scale of “Self-organization of activity” (Table 1) indicate that in the group of Novosibirsk students on subscales “Planarity”, “Self-organization”, “Orientation to the present”, and “Self-organization index” were observed statistically significant positive differences in the dynamics of indicators from the first to the fourth course, and the level of values varied from low to medium compared with the normative values determined for students of university cities.<sup>26</sup>

**Table 1** Comparison of indicators on a scale of “Self-organizing activity”

Indicator	Novosibirsk			Kuibyshev		
	1 course	4 course	p	1 course	4 course	p
Regularity	17,20±1,03	19,70±0,58	*	16,81±0,71	17,21±0,78	n/s
Purposefulness	29,60±0,89	28,76±0,83	n/s	35,71±0,62	36,71±0,56	n/s
Perseverance	19,00±0,77	18,70±0,63	n/s	22,3±0,86	22,61±0,60	n/s
Fixing	18,36±1,13	20,85±0,70	n/s	20,91±0,66	21,51±0,65	n/s
Self-organization	7,36±0,68	9,58±0,73	*	7,4±0,51	7,81±0,49	n/s
Mood orientation	7,60±0,40	8,82±0,24	*	9,31±0,34	9,21±0,34	n/s
Index	16,52±0,46	17,73±0,28	*	21,61±0,55	22,1±0,45	n/s

**Note** \*-  $p \leq 0.05$ ; \*\*-  $p \leq 0.01$ ; \*\*\*-  $p \leq 0.001$ ; n/s- insignificant

In the group of Kuibyshev girls, there was a slight positive trend in most of the test indicators, however, there were no significant differences between the courses, and the level of absolute values was average. Such data may indicate that, during their studies, girls to a certain extent formed the ability to rationally organize their activities, achieve goals, overcome difficulties, and generally control their feelings, thoughts, and actions. However, the level of self-organization remained average, indicating a difficulty in implementing plans, possibly related to the social and environmental factors of a small city.

The “Life satisfaction” scale measures the cognitive assessment of the compliance of life capabilities with a person’s expectations and reflects the overall measure of inner harmony and psychological satisfaction and probably has a close relationship with objective indicators of the success of a person’s life.<sup>27</sup>

The data obtained (Table 2) indicate the average level of the “Life satisfaction” indicator in both groups. However, if in the Novosibirsk group this indicator remained at the same level as at the graduation rate, then in Kuibyshev it increased significantly by the end of training ( $p \leq 0.01$ ), remaining, however, only in the zone of average values.

These data may indicate that at the beginning of their studies, Novosibirsk students already had a fairly high level of life satisfaction, were ready to solve life tasks and master new forms of activity. However, by the end of their studies, they were either somewhat disappointed in their choice of profession, or significantly changed their opinion about their social status, revised the criteria for quality of life and more really approached the assessment of the prospects for professional and personal self-realization. This is partly due to the increased by the end of the study the realism of female students in assessing their own importance and the possibility of active influence on the world around them. However, from our point of view, a more weighty reason may be the specific socio-environmental and economic factors of a small city, where, despite the rather high level of training of graduates, the likelihood of employment and self-realization seemed low.<sup>28</sup>

Viability characterizes the measure of a person’s ability to withstand extreme and stressful situations, while maintaining the internal balance and efficiency of thinking that ensure the success of the activity as a whole.<sup>29</sup> According to our data (Table 2), the values of the viability indicator in both groups were assessed as low. Despite the general upward trend in the indicator, by the end of the study, significant changes were observed only in Kuibyshev, which indicates the beneficial effect of the social and pedagogical conditions of the educational environment of the branch on the development of personal potential. The data from Novosibirsk girls indicate, perhaps, not so much about the high susceptibility of female students to stress (the results for the remaining scales were within the normal range), but about caution in assessing their own importance and value, unwillingness or inability to expand the limits of their capabilities.

**Table 2** Comparison of performance scales “Life satisfaction”, “Viability”

Indicator	Novosibirsk			Kuibyshev		
	I course	4 course	p	I course	4 course	p
Life satisfaction	24.44±0.98	24.30±0.88	n/s	20.9±0.86	24.61±0.60	**
Viability	92.60±3.19	94.91±2.51	n / s	110.5 ± 4.2	117.8±3.5	**

**Note** \*-  $p \leq 0.05$ ; \*\*-  $p \leq 0.01$ ; \*\*\*-  $p \leq 0.001$ ; n/s- insignificant

Conscious planning of personal growth sets the focus on the search and the formation of a professional environment necessary for self-development and self-realization. Career “promotion” of a person in an adequate direction provides the possibility of achieving a high degree of respect and recognition, as well as high satisfaction with the quality of his own life. For students, due to age and psychophysiological characteristics, such circumstances become crucial, since, having formed, career orientations can remain stable in a person for a long time.<sup>30</sup> The results of the test “Anchors of a career” indicate a statistically significant positive dynamics of indicators in the Novosibirsk group on the scales of “Service” and “Freedom for”, and in the Kuibyshev group on “Entrepreneurship”; the level of all indicators in both groups was assessed as average. The girls of the district center, the positive dynamics of the “Entrepreneurship” indicator indicates an increased need to create something new, to have their own business and to achieve financial independence during the training (Table 3).

The growth of the indicators of the potential in the group of Novosibirsk testifies to a certain personal growth, striving working with people and the need for greater autonomy of action. Low indicators and the lack of significant dynamics in both groups on the “Challenge” scale may indicate not so much the unwillingness to compete, overcome obstacles and solve complex tasks, but rather the preference of planned and conscious activity to simple adventurism.<sup>31</sup>

Personal potential is an integral characteristic of the level of personal maturity, and its main phenomenon and form of manifestation is the level of self-determination of personality.<sup>32</sup> To assess the level of self-determination of the surveyed contingent, we used the method “Scale of self-determination of personality”.<sup>33</sup> The data obtained on the “Authenticity” scale showed that the girls of Novosibirsk in the first year slightly advanced classmates from Kuibyshev (Table 4), but to graduation rate the values of this criterion are almost aligned.

The positive dynamics of the indicator was observed in the group of Kuibyshev girls ( $p < 0.05$ ). On the scales of “Self-expression” and “Choice”: significant and reliable progress was observed among female students of the metropolis and the graduation rate of these indicators were already higher among rural female students (Table 4). In general, the level of self-determination among female students, despite the different “intragroup” dynamics, was assessed as moderately low. The results indicate a certain dependence of girls on the opinions of others, their incomplete satisfaction with life, and their unwillingness to take responsibility for their own lives.

Test “Quality of life and satisfaction”<sup>34,35</sup> indicates that the physical activity and the activity of the study group “Emotional experiences” are more pronounced among female students in the district center, and the expansion of the “Sphere of communication” was more successful in the megalopolis students (Table 5).

**Table 3** Comparison of the scale career orientations

Parameter	Novosibirsk			Kuibyshev		
	I course	4 course	p	I course	4 course	p
Serving	4,85±0,16	5,41±0,15	*	5,40± 0,10	5,2±0,12	n/s
Challenge	3.70±0.27	4.09±0.24		4.21±0.14	4.22±0.13	n/s
Business	3.78±0.24	4.23±0.15		3.61±0.18	4.46±0.16	*
Freedom “for”	4.10±0.18	4.79±0.17	**	4.91±0.12	4.54±0.14	n/s
Freedom “from”	4,30±0,17	4,82±0,14		4,80±0,11	4,56±0,13	n/s

Note \*- p≤0.05; \*\*- p≤0.01; \*\*\*- p≤0,001; n/s- insignificant

**Table 4** Comparison of indicators on the scale “Self-determination of personality”

Scale	Novosibirsk			Kuibyshev		
	I course	4 course	p	I course	4 course	p
Authenticity	15.04±0.53	15.15±0.33	n/s	14.5±0.37	15.71±0.41	*
Self-expression	8.80±0.27	9.73±0.15	**	10.3±0.25	10.0±0.26	n/s
Selection	13.16±0.76	15.03±0.27	*	18.0±0.45	18.5±0.47	n/s
Self-determination index	12.33±0.21	13.55±0.19	**	14.30±0.25	14.70±0.30	n/s

Note \*- p≤0.05; \*\*- p≤0.01; \*\*\*- p≤0,001; n/s- insignificant

**Table 5** Comparison of indicators on a scale “Quality of life and satisfaction”

Indicator	Novosibirsk			Kuibyshev		
	I course	4 course	p	I course	4 course	p
Physical health	15.12±0.34	16.39±0.25	**	12.51±0.37	14.71±0.34	**
Experiences	21, 12±0.42	20.30±0.40	n/a	19.91±0.40	21.31±0.30	*
Activity in free time	10.52±0.36	12.12±0.20	**	10.10±0.28	10.60±0.25	**
Communication sphere	20.08±0.49	21.70±0.26	**	20.61±0.38	21.4±0.33	n/s
UCF index	16.95±0.28	17.63±0.17	*	16.10±0.28	17.3±0.23	**

Note \*- p≤0.05; \*\*- p≤0.01; \*\*\*- p≤0,001; n/s- insignificant

Perhaps these results are due to the peculiarities of the subjective psycho-emotional perception of the social and living environment and the high level of self-assessment of the subjects. The ratio of these characteristics, obviously, has a positive effect on adaptation to new conditions and, as a result, allows us to devote more time to the development of new space, hobbies, social life, and sports. This assumption is confirmed by the dynamics of the Index of Satisfaction with Quality of Life, which statistically significantly increased in both groups.

## Conclusion

The results indicate that there are significant differences in the dynamics of indicators of the personal potential of female students of the NSPU for the period of study, depending on the characteristics of the socio-pedagogical environment of universities in the metropolis and regional center. The specificity of such differences is associated with a change in the psychosocial status of students during the period of study at the university due to the influence of both positive and negative social and environmental, economic and cultural factors. These results may be important for the optimal construction and practical implementation of the educational process in the student's

environment, depending on the course of study and the conditions of the educational environment.

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## Conflicts of interest

The authors declare there is no conflict of interest.

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