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**INNOVATIVE ACTIVITIES AND SOCIO-PSYCHOLOGICAL
SECURITY IN PROFESSIONAL AND PERSONAL
DEVELOPMENT**

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Abstract

The aim of this paper is the study of psychological indices of Innovative activities and socio-psychological security of students, young scientists, and instructors aged over 35. The paper raises the issue of professional and personal development of the subjects of education to the social-psychological security and Innovative activities criterion. The paper highlights the following indices of social safety of the subjects of education: tolerance to ambiguity, viability, propensity to risk, and motivation to failure avoidance. To conduct the study of psychological indices of social security of children, the following methods were used: Ye. Ye. Tunik's questionnaire "Propensity to risk"; G. A. Soldatova's questionnaire «Tolerance Ambiguity Scale»; McClane's questionnaire "Tolerance to ambiguity", S. Maddy's questionnaire «Viability», Eller's questionnaire «The motivation for failure avoidance». The investigation has shown that the level of tolerance to ambiguity and viability, and inclination to risk and motivation for avoiding failures restrain – in a considerable number of students, young scientists and teachers – the development of their innovative potential, in a way providing their personal comfort and security, thus creating a conflict between the societal demand for an innovative personality and its readiness to meet this demand.

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1. Introduction

An innovative potential of a person as a subject and participant of psycho-pedagogic activity in the higher school educating environment is an integrative characteristic of a person as a complex of individual properties, features and abilities that ensure its psychological readiness to generate new forms

of activities in creating, acquiring, and propagating innovative educational products as well as its self-development and individual growth as a strategic factor of efficient professional performance in pedagogy (Galazhinskiy, & Krasnoryadtseva, 2013; Klochko, & Galazhinsky, 2009; Knyazeva et al 2016; Mikhailova, 2015; Mulina, 2014; Pautova, 2008; Shaimakova, 2009).

The socio-psychological security, as an external form of human activity, is determined by a system of social norms and world outlooks as well as the conscious attitude to the issues of personal safety and that of the surrounding others. It also stems from the development of psychological, spiritual, and moral qualities and is characterized by practical activities aimed at isolating, preventing, attenuating and removing the social risk factors arising in the medium of a person, group or community; it also comes from a healthy and safe lifestyle (Baeva, & Bordovskaia, 2015; Kislyakov et al 2014; Zinchenko, 2011).

The socio-psychological security is ensured by a set of values and socio-personal qualities that foster an active pro-social attitude to life, including, among other things, social tolerance, social anticipation, socio-psychological stress resistance, social responsibility, empathy, altruism, etc.

Considering the psychological security in the structure of societal security in terms of mobilization of man's inner resources and successful performance of activities, including in ambiguous situations, the innovative potential of a person ensures its readiness to actualize socio-psychological assets, closely related to the personal self-diagnosis, self-control, self-management, and self-discipline, as well as solution of external social problems.

Among the psychological resources of personal security that constitute its psychological assets, they point out those related to man's perception of himself, the surrounding world, and the aim of his existence, including as an individual in pursuit of some profession. Referred to the psychological resources of a person's societal security are his critical thinking, resistance to information impacts and psychological stresses, pro-social standing, tolerance to ambiguity, and social anticipation. These resources simultaneously comprise the person's innovative development foundation. The divergent thinking, common to an innovative individual, the ability to efficiently seek, select and use information for obtaining a practical effect from the educational product being created, orientation to the practical use of innovations in one or other sphere of social life, an ability to foresee potential opportunities for and risks of introduction of innovations in social and educational medium and be psychologically resistant are characteristics of a subject of innovative activities. That is why a number of personal features have become the theme of our investigation.

Taking part in the investigation were 412 students (335 studied under bachelorship and 67 under magistrate programs, majoring in pedagogy and psycho-pedagogic education), 178 young scientists (80 post-graduate students and 75 beginning tutors), and 100 instructors aged over 35. The aim of the investigation was to single out the level of such personal features as tolerance to ambiguity, viability, propensity to risk, and motivation to failure avoidance as indicators of the innovative potential.

2. Research methods

The research of students' level of tolerance to ambiguity was carried out using the Tolerance Ambiguity Scale (TAS) method as adapted by Soldatova. This method enables evaluating the level of tolerance to ambiguity and discovering the main source of intolerance to ambiguity in individual sub-

scales like novelty, complexity or insolubility. The novelty scale shows tolerance to new and unknown situations and new information. The complexity scale shows tolerance to complicated, controversial information.

The insolubility scale shows the tolerance to problems that are hard to solve, for instance, due to lack of information, not obvious nature of alternative solutions, etc. To determine the general level of tolerance to ambiguity we used the McClane “Tolerance to ambiguity” questionnaire.

To study the level of viability, we used the Maddy test. Viability is a person’s ability to successfully operate in difficult or stress situations. This includes three scales that correspond to three components of viability in compliance with the Maddy theory: involvement (setting for participation in the proceedings), control (setting for active influence on the course of events) and risk acceptance (setting for acceptance of ambiguous situations and actions in them). The motivation for failure avoidance was measured using the Eller questionnaire. To study the propensity to risk we used Ye. Ye. Tunik’s method of diagnosing the personal creativity by the “Propensity to risk” scale. According to the Ye. Ye. Tunik method, the propensity to risk manifests itself in that the subject will uphold his ideas, ignoring the response of others; he will set himself high goals and seek to achieve them; he admits for himself a possibility of errors and failures; he loves to learn new things and ideas and resists the opinion of others; he does not worry too much when those around him disapprove of his actions; he prefers to have a chance to risk for learning how it will work out.

3. Results and Discussion

The tolerance to ambiguity is an individual feature that determines a man’s behavior in an ambiguous situation. A man, tolerant to ambiguity, may feel rather comfortable in a situation of high entropy. He is able to efficiently operate under unfamiliar circumstances. In lack of information he assumes responsibility and is able to take decisions without lengthy doubts and fear of failure. In an unfamiliar situation he sees a possibility for development and demonstration of his skills and abilities. The investigation carried out has shown that the students scored 56.5% on the novelty scale, 27.4% on the complexity scale, and 16.1% on the insolubility scale. The young scientists scored, respectively, 52.2%, 32.3%, 15.4%; the teachers did 54.6%, 31.0% and 14.4%. (table 1).

Table 1. The results of the study of tolerance to ambiguity

№	Level	Students	Results, %	
			Young scientists	Instructors aged over 35
Scale of novelty				
1.	Low	2.4	-	-
2.	Middle	16.5	20.9	19.4
3.	High	37.6	31.4	35.2
Scale of difficulty				
1.	Low	21.3	14.4	10.5
2.	Middle	6.1	11.2	14.6
3.	High	-	6.7	7.9
The scale of unsolvability				
1.	Low	8.1	4.1	2.0
2.	Middle	5.3	8.1	5.7
3.	High	2.7	3.2	4.7
General level				
1.	Low	24.55	18.3	17.75
2.	Middle	39.95	46.85	47.7
3.	High	35.5	34.85	34.55

According to the McClane questionnaire, 75.5% of students, 81.7% of young scientists and 82.25% of teachers demonstrated a medium to high general degree of tolerance to ambiguity. One can draw a conclusion about the capability to efficiently pursue innovative activities when information is deficient, to assume responsibility, take decisions without prolonged doubting and fear of failure. Most of the students, young scientists, and teachers are aware of the opportunity for developing and demonstrating their skills and abilities in such situations.

The viability, as a characteristic of a person's socio-psychological security, testifies to a measure of overcoming by the person of challenges that arose and a measure of application by the person of efforts in work on himself and in addressing the circumstances of his life. The viability, as a personal variable asset, mediates the impact of stress triggers on somatic and psychological health, the possibility of coping with various stresses, and the maintenance of a high level of physical and psychic health, as well as optimism, efficient self-control and full satisfaction with one's life. (table 2).

Table 2. The results of the study of viability

№	Level	Students	Results, %	
			Young scientists	Instructors aged over 35
1.	Low	19.9	14.45	16.7
2.	Middle	49.0	46.71	39.4
3.	High	31.1	38.84	43.9

In the course of investigation, a conclusion was made that there is no significant difference between students, young scientists and adults in manifestation of components of viability and integral indicator of viability. At the same time, at a higher level the viability is more pronounced among young scientists. Thanks to such a component as "involvement" they were convinced that being involved in the proceedings around them gives them a maximum opportunity to find something worthwhile and interesting. They enjoy what they are doing, they are busy all the time, and they like it all, working with gusto and trying to remain in the picture. With students, a component more pronounced than with adults is the viability in the form of "risk acceptance", i.e. the man's conviction that whatever happens to him contributes to his development due to knowledge derived from experience, be it positive or negative. The students are more inclined to regard life as a means of acquiring experience, and they are prepared to act in absence of assured warranties of success, taking risks and considering the search for comfort and security something that impoverishes man's life. They are not afraid of surprises, taking them for a spice of life and willingly undertaking implementation of even the boldest ideas.

We have singled out, as indicators of societal security of man, behavioral motives urging him in pursuit of his innovative activities since the presence of the leading motive of failure avoidance creates unfavorable conditions for development of the person's innovative activity and is determined by avoidance of ambiguity and risk, which is a key element of innovative activity. In this connection, an important motive for us was the avoidance of failure as an indicator of the person's societal security.

The investigation showed that the high significance of motivation of avoiding failures is common to 40% of the total number of the representative samples, which is a factor that hampers realization of a person's innovative potential and activity. (table 3).

Table 3. The results of the study of motivation to failure avoidance

№	Level	Results, %		
		Students	Young scientists	Instructors aged over 35
1.	Low	29.4	25.4	30.3
2.	Middle	30.5	30.7	33.9
3.	High	40.1	43.9	35.8

The result obtained testifies to the fact that the subjects with a high level of motivation for avoiding failures are characterized by non-adaptive functioning in innovative activity in all of its blocks: formation of motives for activity, setting of the goal, work planning, response to interferences and failures, and implementation of intentions. Those are characterized by an insufficient initiative; they normally choose an activity whose result depends less on individual capabilities, the desire to assume either very simple or, conversely, extremely difficult and almost impracticable obligations (since a failure is either excluded or a responsibility for it is removed on account of an extreme complexity of the task).

They are not inclined to plan their future dividing it into large spaces of time. As obstacles and difficulties emerge, they do not persist in achieving their goals. Such circumstances testify to a significant part of the participants of the research seeking to obtain immunity to likely risks and failures, and personal psychological security. At the same time, the discovered feature of the person's motives hampers disclosure of his personal and professional potential, thus restricting interpersonal contacts and putting off the students' commencement of the professional career. For young scientists and teachers this puts off the obtaining of results in research and education, which results would be ready for realization, and minimizes the experience of efficient innovative work. The said features of lifestyle, associated with prevalence of motivation for avoiding failure, create, in our opinion, specific socialization conditions, which increase the probability of formation of passivity and personal infantilism with the students.

We regard inclination to risk as a personal feature or activity of a person aimed at sustaining a prospective danger. The inclination to risk in innovative activity signifies a person's orientation, emotional preference of such type of activities and situations associated with a risk of error, and a choice of alternative versions linked with a greater probability of loss.

The investigation has shown that around 17.5% of the surveyed individuals in all groups have a high level of inclination to risk. For most of the students, young scientists and teachers engaged in education and other professional activities associated with innovations, the risk to err is a personal psychological threat that, possibly often, restrains their attempts to implement their own innovative ideas, hampers realization of their personal and professional potential, and restricts inter-personal contacts. (table 4).

Table 4. The results of the study of propensity to risk

№	Level	Results, %		
		Students	Young scientists	Instructors aged over 35
1.	Low	36.6	37.35	32.5
2.	Middle	45.75	45.0	49.25
3.	High	17.05	17.65	18.25

Such a result agrees with the results obtained in the study on avoidance of failures in innovative endeavors.

4. Conclusion

Thus, the investigation carried out has shown that in the scientific and educational environment of the higher school the process of innovative activity is associated, for some students, young scientists and teachers, with psychological factors of the person's societal security.

A transitive type of society implies formation of an innovative type of thinking of the subjects of professional activity. This type envisions openness to experiments, innovations and changes; recognition of the pluralism of opinions, existence of different viewpoints; orientation to the future; confidence and ability to overcome life's challenges; planning; belief in a possibility to settle and forecast social life; high value of education; existence of creativity and creative thinking as a personal asset; an ability to find ideas for and opportunities of optimal implementation; an ability to orient oneself in a state of ambiguity and determine the permissible degree of risk; and an ability of reflection and self-analysis. The investigation has shown that the level of tolerance to ambiguity and viability, and inclination to risk and motivation for avoiding failures restrain – in a considerable number of students, young scientists and teachers – the development of their innovative potential, in a way providing their personal comfort and security, thus creating a conflict between the societal demand for an innovative personality and its readiness to meet this demand.

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