



Research Article

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## ***Self-Realization of Students in Work of Small Innovative Enterprises as Factor of Strengthening Their Psychological Well-Being and Health***

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### **ABSTRACT**

*The circumstances and conditions for improving the psychological health of students through their participation in the activity of small innovative enterprises established on university base are considered. The authors reveal essence of students' self-realization in work of these enterprises, and also the main trends of students' psychological well-being, such as: a personal involvement into entrepreneurship activity, realization of internal capacities and potential, social cooperation into scientific and innovation projects. The human-focused model of small business development in university infrastructure combines two levels of maintaining the psychological health of students: subjective and imperative. The first level reveals the attributive manifestations of students' self-realization, the second level is constructed above it and contains the implementation regulations of innovative entrepreneurship, realizing these signs. The presented model provides the main psychological trends of students' well-being by inculcating of the humanitarian standards of using innovation technologies in the entrepreneurial activity in the university.*

**Keywords:** *Psychological Health, Self-Realization, Student Youth, Small Innovative Enterprise, Trends of Students' Psychological Well-Being, Human-Focused Model of University Innovative Business*

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### **INTRODUCTION**

Psychological health of a person is inextricably linked with self-realization, especially in the period of youth. In fact, both of these phenomena reflect the same process of full and productive existence of the individual in certain socio-cultural conditions.

The meaning of self-realization for a young person is the capacity to be a subject, be creative, active, take responsibility, make decisions, pursue goal-setting, etc. The category of self-realization in the understanding of psychological health requires overcoming narrow standards of mass consumption culture that form passive-user samples life of a person as a dependent user-consumer, human-object, deprived of the ability to independent thinking and creation. Instead of full-fledged self-realization today spreads banal self-assertion, in which the surrounding world and society are nothing more than a means of satisfying selfish desires.

To develop a viable youth, a certain system of measures and actions of society is necessary to organize the appropriate conditions for the growth and development of the individual. At all times, this role was played by education. Today for students' youth higher education should become a school of productive self-realization, in which each student will be able to build his professional, social, cultural image, project his future. At the same time, the higher school itself needs to significantly strengthen its socializing function in accordance with the new challenges of the times, in the conditions of the development of new forms and practices of consciousness formation, including on the basis of modern information and innovative-business technologies.

In the current period, there is a process of active formation of small innovative enterprises in Russian universities (in accordance with the Federal Law of 02.08.2009 № 217-FZ). This type of enterprise being a successful tool for combining the university scientific-practical and educational component and innovative business has a number of important advantages. Among the main advantages is the ability to quickly transform an intelligent-scientific solution into a result of technical practice in the high-tech sphere. At the same time, the successfulness of a small innovative enterprise (SIE), operating on the basis of the university infrastructure, depends on its willingness to create jobs for students, to give them the chance to realize their professional qualities as future specialists, to acquire the skills of practical innovation work in high-tech business, to gain confidence in themselves and their abilities.

An essential feature of innovation business lies in the fact that its sphere of activity presupposes mandatory self-realization of employees. This feature is determined by the product of these enterprises, which are innovations [1]. It's no secret that at a psychological level, innovations are tightly related to self-realization, as new ideas, solutions and know-how are born in the minds of people, depend on their desires, creativity and ability to implement it [2]. Innovations in business are an inevitable consequence of the work of the person, who realizes his skills, knowledge, talent, experience and himself in solving a unique scientific, technical and economic problem. Innovations and production of various high technologies are inconceivable without self-realization of their creators, otherwise the work boils down to a schematic, ordinary, reproductive process of repeating the finished samples and models.

In the social and professional dimension, a successful SIE is a team of creative employees, each of whom participates in working-out of new ideas and projects, develops as a professional and skilled specialist, his personal potential [3].

Thus, the readiness and the possibility of full-fledged creative self-realization is the basis of innovative activity, its internal source and driving force [4]. In this regard, the self-realization of students as potential and successful employees is an important value in the work of small innovative enterprises at the university, requiring the organization and maintenance of favorable conditions.

Meanwhile, often in practice, the activity of small enterprises at universities is dominated by a commercial-fiscal approach, when the first goal is to achieve profit and raise the salaries of employees. In these cases, the efforts of SIE, as a rule, is reduced to copying and distribution of an already ready innovative product and technology, but the search-heuristic and high-tech work recedes into the background, or even ends. As a result, SIE in the university functions like a commercial implant not developing its members.

## MATERIALS AND METHODS

**Problem Statement.** The possibility of the self-realization in the innovative work of small enterprises for the students as for the future effective specialists plays an essential role not only in the formation of the professionally important qualities, but also in achieving a harmonious psychological status, better self-esteem and a sense of self-efficacy. In this regard, the SIE, functioning at universities, supplements the professional training process perfectly, filling the gap between the students' scientific knowledge and their practical experience, as well as between internal claims and personal resources [5].

Underreporting and ignoring of the role of students' self-realization lead in a best case to repudiation of SIE from the university tradition, when SIE essentially turns into a "alien body" and goes beyond the sphere of the university system. In the worst case, the loss of value of students' self-realization leads to a decrease not only of innovative motivation, but also to a violation of the psychological satisfaction and well-being of students who can not obtain a valuable experience of self-development. The assertion of the role and value of students' self-realization testifies to the

existence of a high humanitarian level of SIE activities, its viability as the harmonious structure serving not only to the commercial interests, but also to educational and psychological significant aims [6].

**Purpose of the Study.** The object of the research carried out by us was the innovative-entrepreneurial environment of the higher school as a sphere of student youth's self-realization and their psychological well-being. The main problem of the research consisted in identifying stable conditions of students' self-realization in small innovative enterprises established on university base and determining the rules for maintaining these conditions in university business-practice.

**Methods and participants of the study.** As the main methods of collecting and obtaining statistical data, the authors used a complex of methods of questioning. To identify objective quantitative information, the authors conducted a questionnaire survey of students of the humanitarian and technological university of Belgorod (N=220 subjects). The objectives of the survey were to determine the professional expectations and situations of psychological well-being of students, as well as to provide self-realization opportunities at the university, studying the dominant meanings of the work in a small enterprise. In order to verify the data and form the relevant picture, the authors conducted an expert survey (N=60). As experts, they have attracted faculty and business professionals of innovative structures.

**Research approach.** The scientific approach of the authors is to conduct a positive connection between the productive self-realization of students and their successful scientific and innovative work in the university, including in small innovative enterprises [7]. The higher the degree of involvement of students in scientific-practical work, the higher the level of their psychological health, which is connected with honing and approbation of their personal potential [8].

The specificity of the university SIE is their close relationship with the scientific-research activities of universities, their industrial and innovative clusters (a part of which they are) [9]. The more scientific and industrial potential of the university is, the more opportunities for the development of the SIE there are, as well as for an individual level - more chances for the self-realization of the teaching staff, students, researchers, and graduate students.

Many authors note that the success of a modern university in the increasingly competitive world market for educational services is largely determined by the achievement of a strong link between personal, scientific and entrepreneurial aspects of university training [10], ensuring the integrity of the educational, research and production fields of the university [11]. The development of SIE in universities is an effective way to ensure the unity of scientific developments and innovation. Moreover, the field of scientific work is the central line of SIE's activity, creating innovations. Participation of students in this field is of key importance for their self-realization as future professionals and competitive specialists. It is known that the sense of innovation and the deep experience of self-knowledge are born only on the basis of scientific work, at the intersection of fundamental knowledges and generalized methods of thinking and heuristic activity [12].

## RESULTS

Involvement in scientific work as a resource of students' readiness for self-realization in innovative business-activities. Analysis of the existing educational practice has shown that the effective functioning of SIE at the university requires the stimulation of scientific and research activities of students, the development of a whole set of different forms, types and methods of intra-university work that encompasses the practice of preparing students as subjects of scientific research, heuristic activity [5]. At the humanitarian level, it is necessary to personalize scientific activity, which must be ensured by the following conditions:

- the university has a research and experimental infrastructure, scientific schools and directions;
- implementation of scientific research by teaching staff;
- personal adherence of students to academic professors as scientific advisers and managers;
- the formation of various scientific communities of students (academic and problem groups, laboratories, circles, sections, etc.);
- conducting special studies on mastering the methodology and practice of high-tech research;
- implementation of scientific and practical experimental work by students as employees and laboratory assistants in design bureaus, departments, etc.;

- the realization of the regular student scientific conferences, round tables with participation of the leading scientists, specialists having an opportunity to publish students' works;
- versatile support (including financial assistance) of research initiatives of students and their achievements, promoting the image of a successful student as a successful scientist.

A combination of conditions and various forms of involving students in research work can be supplemented. At present, of course, every university in the country has its own valuable experience and traditions of such work [8]. It is vitally important that this experience be personified and has a real practical solution so that each student can develop his personal experience in solving scientific and practical tasks.

The human-focused design of the scientific research sphere at the university as the space of students' self-realization can serve as nutrient soil for substantial support of their work as motivated and trained employees of the SIE.

### **The trends of students' self-realization and psychological well-being in the SIE activity**

It is known that the existing system of education in higher school does not always - if at all - provide opportunities for self-realization of all students. The streaming character of the training, the well-known unification and standardization of ways and methods of working with students not only allows everyone to fully disclose one's abilities and talents, but also engages one's personal potential [13]. Moreover, providing students with jobs for their practical training as the professionals is not included in the problems of education [11]. Also, not all universities can provide the necessary conditions for self-realization, often they do not have production sites for such work, especially among humanitarian specializations.

Thus, the full experience of self-realization is not formed in all students in ordinary educational practice. As a rule, students can realize themselves in the learning process and partly in science, but often they do not have the conditions to realize themselves in practical production activities, which is separated from the current training and is formed outside the universities after graduation.

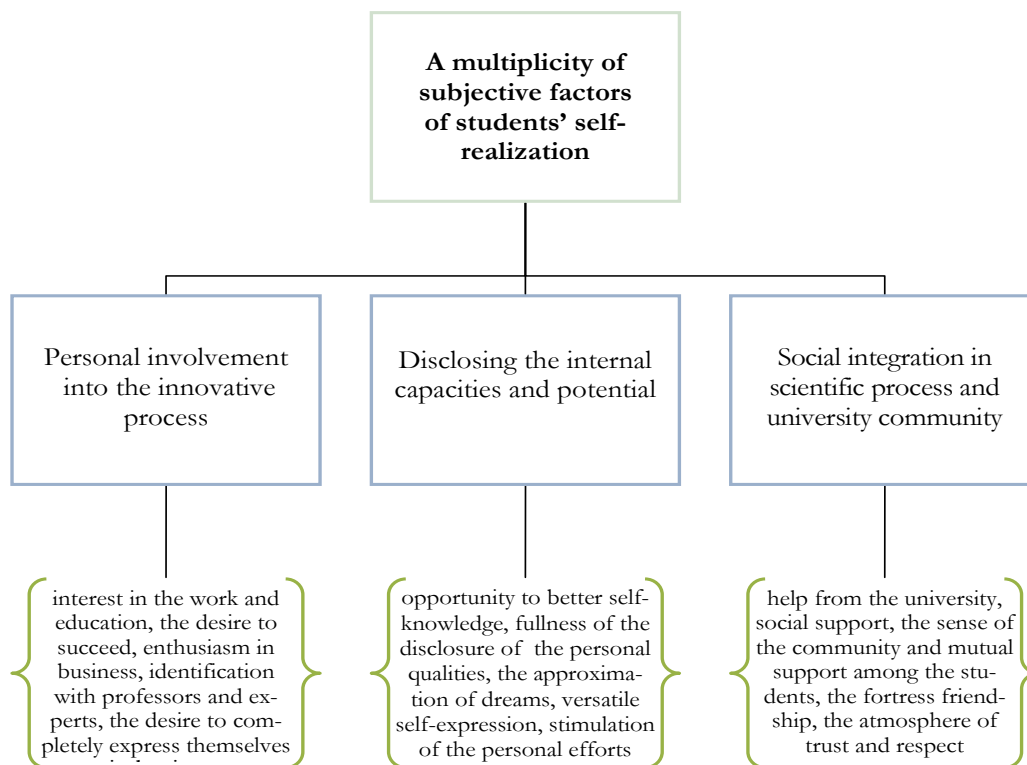
The introduction of the SIE network in universities contributes to the solution of these problems of modern education, to unite and joining various areas of students' self-realization, combining them into a single process for innovative and practical activity. It is important that these enterprises act as an organic continuation of the students' training and scientific activity within the walls of the university, and become a practical platform for elaboration and approbation of ideas, initiatives and scientifically applied researches of students.

In order to be a full part of the university process and to generate innovations successfully, SIE activities should, of course, expand and provide opportunities for student self-realization in university training. Obviously, the common, basic trends of the ensuring such self-realization exist, which should be taken into account and respected when considering the activities of SIE in universities [5].

Currently, the Belgorod State Technological University named after V.G. Shukhov employs more than 100 small innovative enterprises. Among them, there are enterprises founded with the involvement of students in the authorized capital. As a result of our analysis of the working conditions of students at these enterprises, the following three main areas trends of students' self-realization and psychological well-being were determined:

- the personal involvement into the innovative process;
- disclosing the internal capacities into the innovative process;
- the social integration into the university community.

In Figure 1, the content of the trends of psychological well-being, which was created on the basis of the analysis of the students' opinions who participated in research and innovation activities.



**Figure 1.** The trends of students' psychological well-being in the small innovative enterprises

The first trend – the personal involvement in the innovative business in the process of university education – means attitudes toward learning and working at the university as a leading occupation in the current segment of life. This trend is manifested as the students' interest and satisfaction with the training process in the university and in the work of the SIE; as a conviction in the value of the specialty; as a desire to master the profession and achieve success in their work, as well as a high psychological interest in research and innovation. The high personal involvement of students into the training process and working in SIE are also related to their desire to be similar to teachers and representatives of the chosen profession, with a desire to comprehend the profession and holistically express and manifest themselves in the academic, scientific and extracurricular fields of activity [14].

The activity aspect of students' self-realization, the degree of the intensity of their work, the interest in training, level of immersion in general, the level of significance, the subjective value of educational, scientific and innovation activities are reflected in the content of the first trend.

The second trend – disclosing the internal capacities into the innovative process - means development of personal potential of students, their opportunities for self-expression and self-knowledge in the activities of SIE, the realization of the abilities and talents. For complete students' self-realization, first of all, it is necessary fully disclose their internal qualities and resources, their understanding of themselves as successful and effective subjects, the presence of incentives for their efforts in learning and scientific innovation work, their understanding of the obvious usefulness of the training in the university and the opportunities of better self-knowledge and self-expression as productive people [15].

This trend reflects the personal aspect of the students' self-realization and presents a central trend their professional, scientific-research and motivational development, since its content reflects the plan of internal moments of self-development in the profession.

The third trend of the students' self-realization – the social integration into the university community - means the existence of care and attention to the student; availability of assistance from the university and SIE in the solving of not only educational, scientific, labor, but also personal problems; a sense of community and acceptance in the

corporate environment, the presence of an atmosphere of trust, mutual revenue and support, the existence of strong friendships, respect, etc. [14].

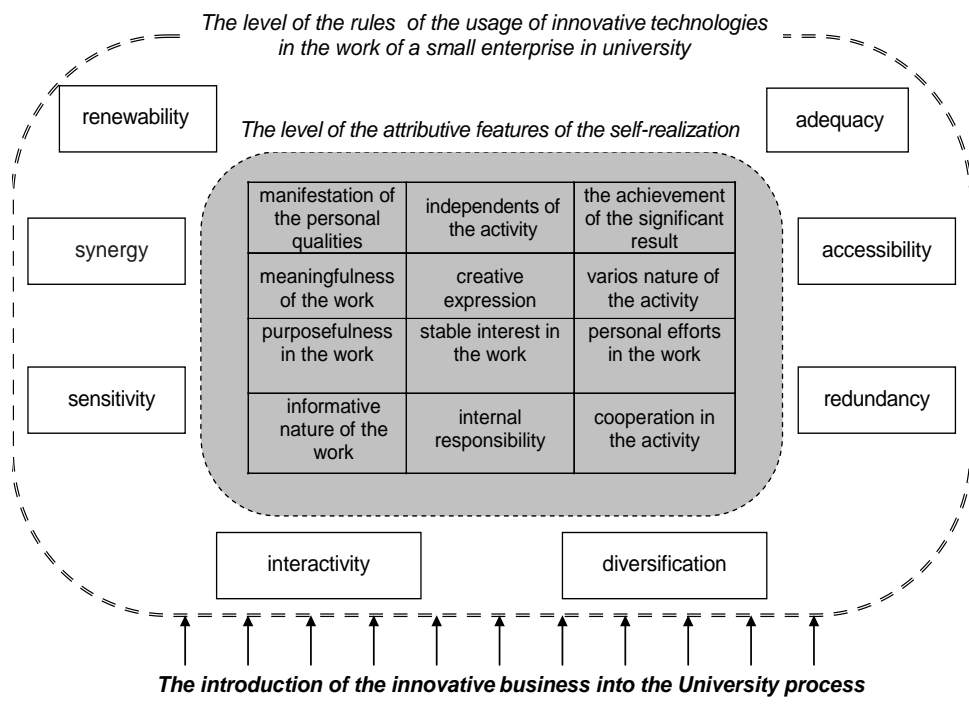
The social aspect of students' self-realization in the activity of SIE of the university is reflected in the content of this trend. This aspect points to the importance of developing broad social ties and interactions of students not only in the training process, research and innovative activities, but also in social, creativity and cultural ones in general. For achievement of self-realization, the young person needs to be integrated into the largest possible number of the social groups and communities of different levels and orientations [4].

In general, if universities adopt the above-mentioned working conditions of the IIP, this will allow these enterprises to become an organic part of training qualified specialists, and also significantly increase the motivational resource and attractiveness of the innovative-practical activity among students.

**The human-focused model of university innovative business**

As noted above, in addition to the scientific, innovation and entrepreneurial tasks, the establishment of SIE at the university should be provided with a coherent personal addressing and imperative basis that reflects the essential signs of students' self-realization as a pledge of their psychological health.

The generalization of the experience of practical implementation and operation of innovative enterprises in universities gave us the material for highlighting some important components of students' personal orientation in a descriptive model (Figure 2).



**Figure 2.** The human-focused model of development of the small enterprises in Universities

This model unites the two main psychological levels of SIE activity - subjective-personal and imperative. The first level represents the key part of the model, which reveals the attributive manifestations of students' self-realization, as well as the initial contour of conditions for their active participation in practical science and innovation in the field of high-tech business. The next level covers the first one and represents the outer contour of our model, it contains a set of rules for the application of scientific and innovative technologies that ensure a stable self-realization of students in the field of high technologies.

Below let us describe briefly each of the contours that make up this model.

In the internal contour, the phenomenon of students' self-realization in the activity of the SIE is concretized and disclosed through the definition of its attributive indicators that the authors collected and summarized in the research [14]. Among them, the most important are:

- the expression of personal qualities, the readiness to manifest themselves, to discover their strong sides;
- the self-employed, self-leadership and reliance on the internal capacity;
- achievement of personally significant results in the work, desire and aspiration to be successful;
- rich and interesting work, the consistency and concreteness of activities, the focus on the outcome of the case;
- meaningfulness of work, realization of significant meanings in activities, the conscious approach to the case;
- creative element in the activity, the possibility of experimentation, gaining of new knowledge, ways of thinking and skills in the activity;
- the variety of activities, flexibility and a wide range of innovative forms and mechanisms of research work;
- internal responsibility, understanding of authorship and participation in business, involvement in developing the content of the workflow;
- dedication to work, the existence of a goal in life and its achievement through training in the university and scientific and innovation work;
- steady interest in the work, personal interest in activities, the desire to learn more, to discover, to do;
- investing internal efforts in the work, ability to overcome difficulties and obstacles in activities;
- cooperation in activities, the dialogical nature of interaction, the desire for agreement and trust, a culture of communication.

The external contour of human-focused model is deeply connected with the above-mentioned signs of students' self-realization, it provides appropriate requirements for the application of innovative business technologies. The embodiment of these requirements is expressed in the following organizational rules.

The rule of adequacy presupposes the correspondence of innovative high technologies to the activities of small businesses to the tasks and content of the professional training of students, their individual requirements, characteristics and abilities, the level of preparedness, scientific specialization and others.

The rule of accessibility makes it possible to include each student in the process of unhindered access, high-tech activities, dissemination and accessibility of innovative-scientific resources and technologies in the higher school, scientific and industrial cluster; offers the provision of students with the necessary amount of scientific, professional information and others.

The rule of redundancy of innovative technologies presupposes the optimality of the operation of these technologies in the framework of ensuring the actual requests of trainees, the information, technologies and methods of innovative work given to students, technologies should not overload and confuse them, but expand their range of opportunities and help solve problems and problems of interest to them.

The rule of diversification presupposes the use of various types and forms of scientific and innovative technologies (information, communication, electronic, multimedia, interactive, network, virtual, etc.) as components of an integrated system of stimulating and supporting innovation.

The rule of interactivity provides, within the framework of the work of a small enterprise, the possibility of active interaction of students with a scientific, expert, referential community, the possibility of mutual communication of the trainees themselves.

The rule of sensitivity means that innovative technologies in the activities of a small enterprise should take into account the needs and requirements of students, and meet their actual development challenges in the process of work and education.

The rule of synergy of innovative technologies requires their direct attitude to the educational process of the university to enhance the culture of training a specialist. Innovative technologies should not only be interfaced with the goals, methods and forms of training, but also fortify it, give it a creative, active and objective character.

The rule of renewability of innovative technologies presupposes their regular revision, correction, addition, and updating in the work of a small enterprise at a university. In the conditions of a growing flow of new knowledge, know-how, discoveries, etc. It is necessary to timely reflect and take into account these changes in the field of small business in the university.

## **DISCUSSION**

Within the framework of the research carried us, we proceeded from the assumption that the process of education and innovative business activities should provide human significant conditions for the development of the internal forces of students, their creative and intellectual resources in innovative projects. There is no doubt that a successful university should support student initiatives through inviting proposals for interesting and promising researches in the sphere of advanced technologies. Students' process of self-realization depends largely on the university practice focusing on the full development of the personality as the most important task and value of the higher education [16].

At the psychological level, the self-realization need as the leading life intention at the student age is implied by amore fundamental and more extensive state, reflected in the tendency of self-determination and self-identity [17]. The results of our study convinced us that the students' self-realization process in the university education represents, on the one hand, as the main growth line of the future specialist personality, one's successful development and self-determination. On the other hand, it acts as an internal indicator of university education effectiveness and a global marker of students' psychological well-being in the process of professional training.

The research results allow establishing that there are following important subjective-significant conditions of students' self-realization in the university education which support the atmosphere of their psychological health.

Firstly, it is ego involvement in education and scientific-innovation activities, which appears in students' interest to education presence, a desire to study at the chosen university, satisfaction by education, submergence into the education process and scientific innovation projects, steady identification with teachers and masters of the profession, and tendency to holistic self-development in a university environment.

Secondly, it is the realization of abilities in education and scientific activities, which means students' personality potential development, their better self-knowledge in education possibility, the approach to their dreams embodiment, the abilities and talents revealing, the preparation orientation on the future success and students' professional growth, on their versatile self-manifestation in education, on their efforts in studying facilitation etc. Thirdly, it is students' social integration in university partnership that appears in a sense of community and mutual assistance in a student environment, the friendly connections presence, the confidence and respect atmosphere, the friendly connections significance and strength.

In our view, discovered student youth's subjectively significant notions about self-realization and psychological well-being allow to single out appropriate problems of the university training. Firstly, it is building-up and development of students' universal active abilities; secondly, it is the productive activity, purposeful and sensible actions in the educational-business spheres stimulation; thirdly, it is ensuring of this activity realization wide social-scientific context playing the role of the social filter and, at the same time, this activity catalyst.

In a certain sense, to solve the above-mentioned problems, we proposed and described the human- focused model of small business development in university infrastructure. This model combines two levels of conditions for maintaining the psychological health of students: subjective and imperative. The first level reflects the internal contour of these conditions and reveals the attributive manifestations of students' self-realization; the second level is constructed above it and reflects the outer contour of the model, which contains the implementation regulations of innovative entrepreneurship, realizing these signs. The presented model provides the main psychological trends of students' well-being by inculcating of the humanitarian standards of using innovation technologies in the entrepreneurial activity in the university.

## **CONCLUSIONS**

In general, a psychologically literate and correct development of small business in universities contributes not only to the professional development of students, but also the formation of important conditions for their personal self-realization and the strengthening of their psychological health. The psychological trends of students' self-realization, set forth in this article, can be identified as directions of the humanitarian activity of small innovativ enterprises, that



stimulate the students' active participation in an innovative-productive activities, the realization of their abilities and internal resources, and social cooperation in the scientific and innovation process. The human-focused model of development of small enterprises in the university is aimed at the activation of attributive signs of students' self-fulfillment by the observance of the certain rules of using modern technologies of the innovative entrepreneurship in the university allows to develop the educational environment as an integral sphere of professional and personal growth of students, and also to strengthen their psychological stability and readiness for a fruitful life.

## RECOMMENDATIONS AND ACKNOWLEDGMENTS

The materials of the article may have some values for professors, psychologists, methodologists, specialists in the field of innovative business, experts and heads of university structures in elaborating personality development programs and methods of training in the conditions of small enterprises. Besides, they may be used in psychologically correct and pedagogically reasonable selection and application of technologies of the innovative entrepreneurship in the system of university education.

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