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Problem of Professional Personality Orientation Formation of a Future Builder and Architect

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Abstract

The article is dedicated to the study of the problem of professional personality orientation formation, it shows the influence of conditions and factors on professional personality orientation of a future builder and architect.

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1. Introduction

The problem of education in general and the university one in particular is deep and multifaceted. The education system has ceased to meet the needs of today's changing world, which has become complex and rapidly changing, interdependent and unpredictable. Rearrangement of the education system has become a global problem.

There is a good reason why the problem of education has attracted major politicians and scientists, as it forms the productive force of the very man being the source of world-view and the indicator of the level of the society culture [1].

In the aspect of professional education the speech is about the need for more and more value-orientation of the professional activity, about the introduction of global criteria into the education, such as cultural, ethical and environmental, etc. Herewith, according to A. N. Kochergin, "the emphasis should be not only on knowledge but on the ability to use it (which, however, should not decrease the inherent value of education)" [2].

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A special role in the educational system, including the university one, is assigned to: improvement of education quality and efficiency; implementation of practical orientation of the education content; specialist's socialization during professional training [3].

As higher education is an important component of cultural, social, economic and environmental development of people, society and nations, it has to solve global transformer issues [4, 5].

Implementation of the tasks of professional formation of a specialist, including a future architect, depends on its attitude towards future profession. Our interest in professional orientation is not accidental: it defines the psychological makeup of the individual and determines its individual and typical individuality.

Professional orientation, being defined by various authors, is interpreted as follows: readiness of an individual to a specific type of work and presence of the abilities to the chosen profession; attitudes, interests, needs, ideals, beliefs and vocation for a particular activity; specifically experienced selective relation of a person to reality, affecting its vital functions.

Analysis of the definitions of a professional orientation given by different scientists makes it possible to conclude that professional orientation in and of itself is the desire to master a particular profession through motivation, interest, readiness and attitude. That is, each decides for itself about the attitude to a particular profession, the reason it wants to master it, why to choose this profession, which actions to make with this profession and about the level of readiness to perform professional duties. In our research we follow the definition of the individual's readiness to a specific type of labour activity.

The sphere of human activity is of selective character making it necessary to single out and develop the core qualities of personality and guide them to implement the leading social functions. That is why, in order to get a competent specialist, it is necessary to pay great attention to the problem of professional personality orientation of a builder and architect [6].

2. Factors affecting the professional orientation formation

Solution of the personality orientation is directly dependent on the general theoretical concept of the personality, knowledge of different approaches to the content of the orientation structure of the personality, to the conditions and factors of its formation. Certain factors affect the formation of professional orientation of a future builder and architect.

According to the researchers, the university stage is a specific sensitive period in relation to the optimal complex of the conditions providing the development of the professional orientation. It contains great potential for such development as during the process of educational and professional activity, a student is comprehensively prepared for the future activity as a professional. Within the university stage of the professional orientation formation, psychologists and teachers study the issues of professional orientation, professional competence and professional self-determination of students; the issues of professional identity; the issues of professional competence; content and structure of professional orientation [3, 8].

During the period of professional training takes place the students' "try-in" of the image of a builder, architect, reevaluation of personal qualities required for future profession, there take place the changes with regard to the profession, to the personal qualities and competence, and reorganization of the need-motivational sphere [9].

The psychological basis of the professional orientation development is the leading activity which, due to complication and development, from course to course, strengthens personal orientation for future professional activity [3]. The activity structure and the structure of personality orientation develop and change during the years of study. As a result, there appear prerequisites for further professional activity, for a postgraduate stage of the professional personality orientation formation. The more complete is the content of professional orientation, the more versatile is the meaning of the choice of this type of activity for people, the more versatile is the satisfaction from the implementation of this intention, the condition of determination of the perspective lines of self-education, that is why it is important for a student to know its own professional orientation [3].

Psychological factors of professional personality orientation formation cover some prerequisites required for the formation of engineering abilities, manifested in individual psychological characteristics of temperament, nervous system and peculiarities of mental processes. They reflect individual's capabilities representing a self-regulating system which is "directly caused by the interests and inclinations of a young man, its self-esteem and the level of aspirations, ideals, values, emotional attitudes and the level of development of volitional qualities [10]. The stated

personality peculiarities form the very mental foundation on which will be established the entire assembly of external (orienting) effects" [11].

Scientific studies have shown that external factors and internal driving forces embodied into motifs are the driving force of the directed attitude towards the profession [12]. Certain factors affect the formation of professional personality orientation of a future builder and architect.

Among the prerequisites of professional personality orientation formation, including a future builder and architect, can be the external factors (social conditions and the educational process) and among the internal ones can be the driving forces (reasonable requirements as fundamental human abilities) [13, 14].

The assembly of external factors and internal driving forces, being embodied in motifs, becomes a driving force of the aimed attitude to the acquired profession of a builder.

Professional personality orientation of a future builder and architect is affected by: high learning achievement in major subjects; the process of studying special subjects at university, but subject to technological prosperity of preparation of a future builder and architect.

In the study of special disciplines it is possible to emphasize a number of features which affect the professional orientation of students: special subjects transfer to the production process in construction; professionalization reference point during the study of subjects at an engineering university; study of basic concepts and conclusions in the subject; formation of the ability to transfer the results of university preparation to the professional activity, but when the basic content of the major subjects and the teaching methodology are aimed at professional activity. Thus, the personality orientation development is determined through the knowledge of the specialization subject.

However, all the stated peculiarities which contribute to the professional personality orientation formation can be enhanced by placing the student into vigorous activity. Hence, the educational institution which is training the engineering staff has a task to provide professional personality orientation of a future builder and architect through the study of the major subjects under the vigorous cognitive activity [15, 16, 17, 18].

Activism in the cognitive activity provides the educational process which must be innovative. Innovation activity in pedagogy represents a set of measures taken to ensure the innovation process at a given level of education, as well as the process itself [15].

The main functions of the innovation activity include the changes in the components of the pedagogical process: meaning, goals, educational content, forms, methods, technologies, training means, management system, etc., that is, an innovative product is created.

Our assumption in the selection of an innovative pedagogical activity as a more efficient condition providing changes in the professional personality orientation of a future builder and architect, appeared due to the following: during the study of the scientific literature it was determined that professionalism of a young specialist is manifested in the ability to reflect, to ask questions to itself, to look for their answers under a new and dynamic professional activity [19, 20]. Innovation activity is the one in the today's innovative medium [21].

The rationale for the ability of the innovation activity to affect the changes in the professional personality orientation, including a future builder and architect, includes the following: the aim of the innovation activity: together with the forming skills is formed the pragmatist readiness to master them; innovative activity is characterized by systemacity, integrity and consistency; the value of innovation activity for an individual is associated with the ability of self-expression, application of the abilities and with creativity; innovative activity is the result of human activity not so much in the adaptation to the external environment, as in the changes in its personal and social needs and interests; innovative activity is associated with motivational readiness to look for and solve problems beyond any external control [15, 19, 20].

We believe that the arguments which we have expressed in favor of the innovative activity make it possible to suppose that it is a reasonable condition allowing changing the professional personality orientation of a future builder and architect as due to its properties and qualities there takes place professional development in the innovative activity.

Universities experience is very wide in the educational process intensification (there was detected the specificity of the teaching activity, training and further development of researchers and teachers at different stages of the development of professional education, there was shown the transfer of the system of higher professional education to the innovative nature of the development and competence format of functioning, there was developed the theory and methodology of professional education, concepts of informatization of education, use of information and communication technologies in education, etc.) [22].

However, the issue of the innovative technologies influence on the professional orientation of a future builder

and architect is under-covered, that is why we have tried to show the influence of innovative technologies on the changes in the professional personality orientation of a future builder and architect. The choice of innovative technologies had a reason behind it, as our assumption is based on the psychological and pedagogical studies proving that professional personality orientation essentially depends on the conditions of its formation and development, which are behind the specifics of education [12].

3. Experience in professional orientation formation under project education

At the stage of formation of professional orientation of future builders and architects was planned the education under the conditions of innovative technologies, project education in particular. The peculiarities of project technology implementing the activity approach in education, determine the changes in the professional personality orientation, as under the conditions of the activity approach takes place the education of the professional activity in the course of implementation of a variety of actions under the method of projects and formation of its personal qualities in action.

Based on the study of the scientific literature we have clarified the peculiarities which can affect professional personality orientation, including the personality of a future builder and architect, under the condition of project education as the one which has absorbed most of the elements of the activity approach. We assume that project education contributes to the formation of professional competencies (they can be considered as one of the indicator of readiness for profession) required by a future builder and architect, as it: provides the opportunity to work in dialogue; aims at independent activity (teaches to solve problems, to think independently and make decisions, requires the necessity in knowledge integration, ability to apply knowledge from various fields of science, engineering, technology, creative areas, predict outcomes and possible consequences of different solutions; to establish cause-and-effect relations; to choose ways and means of activity; to find the most appropriate solutions to the problems).

In the project education there is a possibility to demonstrate more personality activity promoting enrichment of the motifs and the formation of a different relation to it, indicating a higher degree of integration into the profession and, therefore, the changes in the orientation of professional personality of a future specialist. The content of the project activity can also be a prerequisite for the formation of the skills which are considered as the readiness to implement professional activity by builders and architects [20]. Therefore, the technology of project education due to its properties and qualities reinforced its influence on the students' (future builders and architects) assimilation of both, work procedures with the content of the educational material and with the content itself, being important in the professional activity.

Any education activity, including the project one, should be organized and didactically supported.

In order to arrange and implement the educational process under the conditions of project education, its technological and methodical support and to create psychological support, we have tried to offer the following:

1. Which projects can be implemented by students (contours of the project task - the ultimate goal, the original data, possible solution conditions, required limitations and means of solving the task);
2. The proposed projects are developed by a teacher in accordance with the themes of the lessons.
3. A teacher offers each student to help in the selection of the psychological support in order to optimally choose the type of activity and task in the project.
4. Diagnosis for determination of the student's readiness for project education.
5. For each projects are given the tasks, action algorithms and recommendations together with the provision of the educational material and literature, which can be used to organize the activity on the project, to create a model and defend the project.
6. The models as the final product of the students' project should reflect their specific skills, but at a high artistic level. The project results are related to the analysis of the content and the sequence of actions.
7. For each project is prepared an activity model: the sequence of work implementation on the creation of the product (the assembly of all elements making the content of the project activity of students, including its structure, functions and basic procedural levels).
8. The mark for the implementation result of the project work can be given based on certain criteria. During the defence it is necessary to follow the evaluation criteria for the project defence.

The project work is evaluated based on the shown criteria, together with the filling of the expert card and a grade point average is given

3. Conclusions

Our interest in the problem of professional personality orientation formation made it possible to conduct a study of the changes in the professional orientation of a future builder and architect. The research result has shown significant changes in the parameters: readiness for professional activity (high level - 17% of the respondents; above the average - 45% of the respondents, average - 38% of the respondents, below the average and low - 0% of the respondents); attitude towards the future activity (coefficient of accepting the future activity is close to one at the final stage of the study and if compared to the initial stages of education it became higher by 0.333. The coefficient of non-acceptance has decreased from 0.479 to 0.146 at the final stage of the study if compared to the initial stage of the study).

During the theoretical analysis of the study of the problem of professional personality orientation formation of future builders and architects: was determined the relevance of the formation of their professional orientation and were find out the main factors and motifs; was revealed the possibility of strengthening the formation of personality orientation of future builders and architects under the conditions of innovative education activity; were determined the results of the study about the readiness for the professional activity of future builders and architects; their attitudes towards the future activity have shown positive changes in all parameters.

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References

- [1] Vlasenko, L.V., Pryadko, I.P. Professional'naya kompetentnost' spetsialista stroitel'noy sfery v otsenke rukovoditeley predpriyatiy (po materialam sotsiologicheskikh oprosov) [Professional competence of specialist construction sector in evaluating managers (based on opinion polls)] (2012) Integratsiya, partnerstvo i innovatsii v stroitel'noy nauke i obrazovanii, Moscow, MGSU, pp. 656-660.
- [2] Kochergin, A.N. Problemy vysshey shkoly i natsional'naya bezopasnost'. Sotsial'nye transformatsii: materialy mezhdunarodnogo kollokviuma «Vysshaya shkola v razvivayushcheysya Rossii: istoriya, traditsii i sovremennye problemy» [Problems of higher education and national security. Social Transformation: Proceedings of the International Colloquium "Graduate School in developing Russia: history, traditions and contemporary issues"] (2008) Smolensk, SmolGU, 17, p. 157.
- [3] Morozikova, N.V. Problemy vysshey shkoly i natsional'naya bezopasnost'. Sotsial'nye transformatsii: materialy mezhdunarodnogo kollokviuma «Vysshaya shkola v razvivayushcheysya Rossii: istoriya, traditsii i sovremennye problemy» [Problems of higher education and national security. Social Transformation: Proceedings of the International Colloquium "Graduate School in developing Russia: history, traditions and contemporary issues"] (2008) Smolensk, SmolGU, 17, p. 165.
- [4] Vsemirnaya deklaratsiya o vysshem obrazovanii dlya XXI Veka: Podkhody i prakticheskie mery [World Declaration on Higher Education for the Twenty-first Century: Vision and Action] (1998) Parizh.
- [5] Ishkov, A.D., Miloradova, N.G. Formirovanie sotsial'no-psikhologicheskoy kompetentnosti v sisteme podgotovki konkurentosposobnykh spetsialistov v stroitel'noy otrasli. Ucheb. posobie. [Formation of the social and psychological competence in the training of competitive specialists in the construction industry] (2009), Moscow, Arkhitektura-S, 152 p.
- [6] Magera, T.N. Sotsial'no-psikhologicheskaya kompetentnost' i uspehnost' uchebnoy deyatel'nosti studentov mladshikh kursov MGSU [Social and psychological competence and success of educational activities undergraduates MGSU] (2014) Izvestiya Volgogradskogo gosudarstvennogo pedagogicheskogo universiteta, 6, pp. 136-139.
- [7] Zeer, E.F. Psikhologiya professiy [Psychology professions] (1999), Ekaterinburg, 336 p.
- [8] Leont'yev, M.G. Psikhologo-pedagogicheskie usloviya povysheniya effektivnosti obucheniya v vuze [Psycho-pedagogical conditions of increase of efficiency of training in high school] (2011) Sbornik trudov desyatoy Vserossiyskoy i vos'moy Mezhdunarodnoy nauchno-prakticheskoy konferentsii «Sotsial'nye i ekonomicheskie problemy gradostroitel'stva i arkhitektury», Moscow, MGSU, pp. 415-419.
- [9] Romanova, E.V. Professional'noe samosoznanie studentov kak iskhodnyy uroven' professional'nogo stanovleniya spetsialista stroitel'noy sfery v sisteme proforientatsii MGSU [Professional consciousness of students as the initial level of professional development specialist construction sector in the system of vocational guidance MGSU] (2010) Trudy mezhdunarodnoy nauchno-prakticheskoy konferentsii «Sistema dopolnitel'nogo obrazovaniya: struktura, tekhnologii, kadry», Moscow, MGSU, pp. 178-182.
- [10] Magera, T.N. Psikhologicheskie tekhnologii v vysshem stroitel'nom obrazovanii. Monografiya [Psychological technologies in higher education in construction. Monograph] (2011) Moscow, MGSU, 128 p.
- [11] Mitina, L.M. Psikhologiya professional'nogo razvitiya uchitelya [Psychology of professional development of teachers] (1998) Moscow, MPSI, Flinta, 200 p.
- [12] Sender, A.N. Nauchno-pedagogicheskie osnovy formirovaniya professional'noy napravlenosti lichnosti studentov pedvuza [Scientific and pedagogical bases of formation of a professional orientation of the person of students training University] (1998) Mn., 152 p.
- [13] Pryadko, I.P., Ivanova, M.A. Reforma rossiyskoy vysshey shkoly: vzglyad iz stroitel'nogo vuza [Russian High School Reform: a view from the construction of University] (2014) Kazanskaya nauka, 6, pp. 185-187.

- [14] Romanova, E.V. Professional'noe stanovlenie budushchikh spetsialistov investitsionno-stroitel'noy sfery v sisteme proforientatsii MGSU [Elektronnyy resurs] [Professional development of future specialists investment and construction sphere in the system of vocational guidance MGSU] (2011) Nauchno-prakticheskiy Internet-zhurnal «Nauka. Stroitel'stvo. Obrazovanie», 1, URL: <http://www.nso-journal.ru>.
- [15] Slastenin, V.A., Podymova, L.S. Pedagogika: Innovatsionnaya deyatelnost' [Pedagogy: Innovation activities] (1997) Moscow, Magistr, 224 p.
- [16] Vlasenko, L. V. Faktory aktivizatsii uchebnoy deyatelnosti studentov stroitel'nogo vuza [Factors activation of educational activity of students of the university building] (2013) Sbornik trudov mezhdunarodnoy nauchnoy konferentsii «Integratsiya, partnerstvo i innovatsii v stroitel'noy nauke i obrazovanii»: nauchnoe izdanie», Moscow, MGSU, pp. 656-660.
- [17] Magera, T. N. Nauchno-issledovatel'skaya rabota studentov v oblasti psikhologii v tekhnicheskoy vuzze [The research work of students in the field of psychology in a technical college] (2013) Izvestiya KGASU, 26. URL: http://izvestiya.kgasu.ru/files/4_2013/368_375_Magera.pdf.
- [18] Romanova, E.V. Razvitie obrazovatel'noy i nauchnoy sub"ektnosti studentov NIU v protsesse izucheniya distsiplin sotsial'nogo tsikla obrazovatel'nykh programm FGOS-3 [Development of educational and scientific subjectivity NIU students in the study of social sciences cycle of educational programs GEF-3] (2013) Vestnik grazhdanskikh inzhenerov, 6, pp. 368-375.
- [19] Dolgova, V.I. Innovatsionnaya kul'tura i pedagogicheskiy menedzhment [Innovation culture and pedagogical management] (2008) Chelyabinsk: Iz-vo ChGPU: ATOKSO, 318 p.
- [20] Savina, E.A., Ishkov, A.D. Aktivnye i interaktivnye metody i tekhnologii obucheniya v podgotovke spetsialistov investitsionno-stroitel'noy sfery v sisteme dopolnitel'nogo professional'nogo obrazovaniya [Active and interactive teaching methods and techniques in training investment and construction sector in the system of additional professional education] (2011) Moscow, MGSU, 120 p.
- [21] Leontev, M.G. Features of Training Teachers in the Context of Modern Russian Education (2014) Procedia – Social and Behavioral Sciences, 142, pp. 695–701. URL: <http://www.sciencedirect.com/science/article/pii/S1877042814045285>.
- [22] Ishkov, A.D., Miloradova, N.G., Chernyavskaya, A.G. Psikhologo-pedagogicheskaya podgotovka prepodavateley v vysshey tekhnicheskoy shkole: realizatsiya kompetentnostnogo podkhoda. Uchebnik [Psycho-pedagogical training of teachers in higher technical school: the implementation of competence approach] (2011) Moscow, Arkhitektura-S, 263 p.