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ORGANIZATION OF PRACTICE-ORIENTED TRAINING IN NEW ECONOMIC CONDITIONS: THE PROCESS APPROACH

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Abstract

The article discloses peculiarities of the practice-oriented education under conditions of the university's structural divisions. Regions of Russia have their own natural, demographic and economic conditions. Personnel training for regions of Russia, with considering their individual peculiarities and needs, includes the processes, specifically, organization of training and formation of competences being necessary and actual in the given economic conditions. Organizations of such process via the university's basic chairs is represented as a model consisting of the following elements: goal, tasks, principles, approaches, content and diagnostics. The inter-connection of these elements is influenced by the labour market of this or that region, content of federal educational standards, professional standards, processes of formation of personal and theoretical components, fixing of the practical part and formation of this or that competence. The result of this model under conditions of a vocational pedagogical university shall be a pedagogue's readiness for vocational pedagogical activity; in terms of universities of another line, a specialist's readiness for a certain type of activity through organization of the practice-oriented education via their basic chairs. Practice-oriented training of students in a university's conditions is interpreted in different ways. We include organization of the following processes in this concept: conducting of practical works of various types and kinds; scientific-research works; collection, analysis and processing of data for preparing of terms papers and graduate qualification works; conducting of scientific researches; studying and monitoring of needs in personnel for regions of Russia; occupational re-training and advance training of personnel in the region.

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Keywords: Practice-oriented training, basic chair, process approach, pedagogical model, basic processes, auxiliary processes.



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1. Introduction

The modern economic conditions led to the situation when universities became full-right subjects of market economy and now play the role of a producer of educational services as a special merchandise in course of performing the basic function, specifically, reproduction of intellect through training and re-training of high-skilled personnel for the innovative market economy.

The process approach is one of leading management concepts in conditions of the modern economy; it was formed in 1980s. Any entity's activity is regarded as a set of processes which should be managed. The management, in turn, implies clear referencing of processes and delegating powers for managing thereof (Drucker, 1985).

The process of knowledge management at the modern stage takes place in all spheres of activity, including science and education. "Knowledge management technologies" are developing more and more actively. From the classic viewpoint, technology is defined as an aggregate of certain methods, devices and soft- and hardware for providing of free circulation and generation of knowledge (Strokova, 2016; Davydova, Dorozhkin, & Fedorov, 2018).

Analysis of best practices in the issue of knowledge management is reflected in works by Senge (2006), Nonaka & Takeuchi (2001) and Milner (2003). These works unveil importance of concepts of "knowledge", "information", "knowledge assets", "explicit and implicit knowledge", "formalization of knowledge" (Nonaka & Takeuchi, 2001). Knowledge is regarded as an entity's competitive advantage (Senge, 2006).

Milner (2003) emphasizes the importance of the knowledge management process as of an evolution process.

Let us examine a process as a consistent multifold repeated activity which converts resources (inputs) into results (outputs). Each process is characterized with the participant and owners.

In the modern economic conditions, the process approach is being spread over the non-commercial sphere with more and more increasing frequency; in particular, it is regarded as the leading one in an educational entity. The image of a graduate is formed and modified as a result of the process approach.

The "close connection of learning with economy and industry consumers" occurs on the foreground at organizing of the educational process in bachelor's degree applied programs (Mutanov, 2011); university's graduates shall have a strong base for education throughout the whole of their lives (Henner, 2018), and study the experience of practical training in other countries.

In this connection, education should provide the practical orientation thereof.

We examine the process of management of practice-oriented training through creation of basic chairs as structural divisions.

2. Problem Statement

As new Federal state educational standards of bachelor's degree applied programs began to be implemented, processes of organization of performing practices in vocational education of today became a point of intent attention. One of efficient tools is organizing of practice-oriented training via basic chairs

of education institutions and optimizing of the content of disciplines of bachelors' profile training (Dorozhkin, Kalimullin, Migacheva, & Sokolova, 2018).

Basic chairs of education institutions are destined for practical training of students. What is practical training? No doubt, in basis thereof there is the activity related to practical teaching of students, to self-developing of a future professional, his/her mobility on the labour market (Leskova, 2018).

Let us examine basic processes of practice-oriented training in an education institution. They can be divided into three groups of processes: managing processes, basic processes and auxiliary processes.

Managing processes: management of contractual relations, development of normative and organizational documents (provisions, regulations, duty instructions).

Basic processes:

- organization of practical works of various types and kinds;
- organization of term projecting;
- organization of graduate projecting;
- students' research works.

Auxiliary processes:

- staff assistance, information-technical support, logistic assistance.

Basic process - organization of practical works of various types and kinds includes the following stages:

1. Creation of practices database.
2. Assignment of the practices base to a student admitted to a certain education program.
3. Determining of a study line.
4. Determining of an individual task, with considering of a plant (organization), for all types of practices.
5. Including of the study elements into a task on fulfilling a term paper.
6. Final study at passing the pre-degree practice.
7. Execution of the study in the graduate qualification paper.
8. Scientific researches on the region's orders.
9. Organization of supplementary vocational education.
10. Organization of tutorship.

Schunk and Mullen define the process of tutorship as self-regulating and single out the following sub-processes: management, motivating, assessment (Schunk & Mullen, 2013). The American Institute "Virginia Mentor Partnership" (VMP) whose mission is to provide training and technical assistance of tutors and tutorship for formation of competences, proposes various programs, such as studying of tutors' experience.

Owners of the above processes are developers of practice working programs, executing managers. On one hand, it is a chair teacher, on the other hand, it is an accepting entity's employee.

To fulfill each process, tools are needed. Correctly selected tools allow to continue processes without exterior help, "you have nothing to do but reap the benefit of the gained effect", as it is stated by authors of the best-seller "Documentation, Analysis, Design, and Management of Business Process Improvement" (Harrington & Esseling, 2002).

We will examine selectin of tools for organizing of the process of “organization of practices of various types and kinds”.

When studying the discipline “Introduction into Specialty”, a student when performing a control work in form of writing a reference paper will select a respective theme which is close to that of his/her further investigation. When writing a reference paper, the student will master definite skills and knowledge, and his/her general occupational and occupational competences are being formed.

Upon reaching the academic practice, a student is given an individual task, basing on requirements of the educational standard. He/she will improve his/her general occupational and occupational competences in practices of other types and kinds, when performing a term paper; and at reaching the graduate projecting, the student has competences formed which are necessary for performing the graduate qualification work.

Now we will examine the path of occupational competences formation when assimilating the educational program 38.03.02 Management, Profile “State Administering” with use of various tools as presented in Table 01.

Table 01. Tools for formation of competences at performing the process “Organization of practices of various types and kinds”

Activity	Competences	Tasks	Form of organization	Tools
Organization-managerial	Ability to communication in oral and written forms in Russian and foreign languages for solving tasks of inter-person and inter-cultural collaboration;	Participation in developing and realization of corporate and competition strategies of the entity, and of functional strategies (marketing, financial, personnel);	Student's independent work in professional module's disciplines	Investigation of the problem, writing of a theme, a reference paper
	Ability to work in a collective, perceiving social, ethnic, religious and cultural differences with tolerance;	Participation in developing and realization of a set of events of operation nature in accordance with the entity's strategy;	Academic practice	
	Ability to find organization-managerial solutions and readiness to bear responsibility for them from the position of social significance of decisions taken	Planning of activities of the entity and divisions thereof;	Production practice	Use of strategic tools for analysis, goal-setting and activity planning
	Ability to project organizational structures, take part in developing of management strategies, to plan and realize events, to distribute and delegate powers	Formation of entities' organizational and managerial structures;	Production practice	Developing of the project within the program
	Mastering of the strategic analysis skills, developing and realization of entities' strategies aimed at competitiveness provision	Developing and realization of projects aimed at development of the entity (plant, governmental or municipal body);	Scientific-research work	Writing of an article

3. Research Questions

Realization of practice-oriented training through creation of structural divisions (basic chairs) is an issue which is not sufficiently developed yet. In foreign practices, structures (departments) of such type are located directly in the university, while Russian universities create basic chairs at plants and entities and have just begun researches. There is a broad circle of issues to be solved:

- for today, a clearly established legal basis of a basic chair does not exist which hinders the procedure of their organization and activity;
- a clear definition of the concept of “practical training” does not exist (Federal Law “On Education in the Russian Federation” dd. December 29, 2012 No. 273-FL, clause 27); there is no clear delineation between this concept and other ones broadly spread in vocational education, such as “vocational training”, “vocational practical training”, “practice-oriented training”, etc.;
- the integral concept of practical training of specialists at the basic chair has not been formulated yet; the most of published articles emphasize actuality of studying this problem, experience of creation and functioning of basic chairs;
- there is no methodological substantiation of practical training and practice-oriented training of future specialists under conditions of the basic chair;
- there is no research devoted to formation of pedagogues’ readiness for vocational-pedagogic activity at practical training on the basic chair.

Due to the unstable status of concepts related to practical preparation of the integral education process on the basic chair, we will use the concept of “practice-oriented training” as one of aspects of “practice-training preparation” in course of its direct realization. Thus, the object of the study shall be practice-oriented training as a process.

Organization of basic chairs and their activity under modern social-economic conditions leads to the necessity of solving of the following issues:

- substantiation of methodological bases of practice-oriented training of future teachers for vocational-pedagogic activity on the basic chair;
- substantiation and developing of the pedagogical model of practice-oriented training for vocational-pedagogic activity on the basic chair;
- finding and developing of organization-pedagogic conditions for realization of practice-oriented training of teachers in the education process of the basic chair, with accounting for peculiarities and trends of regions.

4. Purpose of the Study

The purpose of the study is developing of the pedagogic model of practice-oriented training of teachers of vocational education at the basic chair for the regional system of secondary vocational education. Achieving of this purpose suggests defining of methodological bases of the process of practice-oriented training at the basic chair and correlation of the pedagogical model with actual conditions and needs in pedagogical personnel of a certain region.

5. Research Methods

The following methods were used in the study: analysis of statutory documents and products of activity; analysis of results of teachers' and students' activities; systemizing and generalization of facts and results of the study; the mental experiment method; modelling; studying and generalization of the experience. Let us examine the process of practice-oriented training modelling.

The modelling shall be realized in two stages. The first stage is building of a conceptual model wherein managerial, basic and auxiliary processes are inter-connected with resources and results (Figure 01).

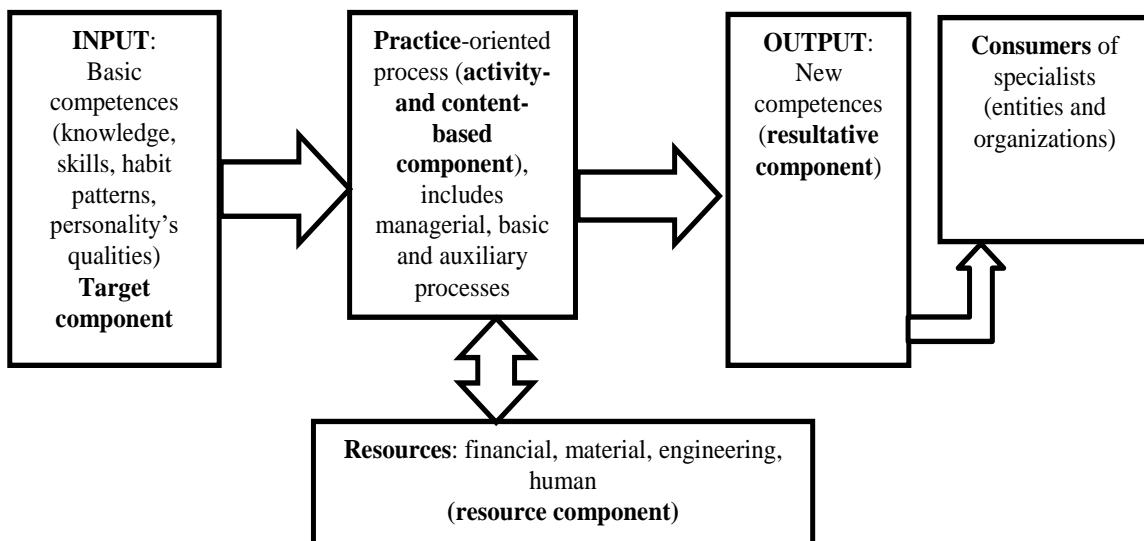


Figure 01. Model of Process Approach

Detailed elaboration of the conceptual model through singling-out of basic processes allows to develop the pedagogical model of practice-oriented training of future vocational training teachers to vocational-pedagogic activity on the basic chair (Figure 02).

6. Findings

The conducted study allowed to substantiate methodological approaches of practice-oriented training of teachers to the vocational activity. Among them there are the following: person-centered, competence, situational, address-based and subject (Zhukov & Sopegina, 2015).

The pedagogical model of practice-oriented training at the basic chair is aimed at formation of readiness of vocational education teachers for vocational-pedagogic activity in the modern social-economic conditions and is characterized with the following features:

- Basic structural elements of the model are in continuous interaction and inter-influence with each other.
- Practice-oriented training of teachers includes the following pedagogic forms (processes): organization of various types and kinds of practices and stage practices; organization of term projecting; organization of graduate projecting; students' scientific research.

- Components of vocational education pedagogues' readiness for vocational-pedagogic activity at practical training on the basic chair are: person-based, theoretical and practical.
- The following criteria and indicators of pedagogues' readiness for vocational-pedagogic activity are defined:
 - *motivation criterion* (value-based attitude, consistent interest to practical vocational activity). The motivation criterion includes pedagogues' needs and intentions to practical activity. An essential peculiarity of the practical activity is pedagogues' motivation to reflection and self-developing;
 - *cognitive criterion* (availability of general occupational and occupational knowledges in the occupational activity). The cognitive criterion contains a subjective system of data and cognitive skills of theoretical and practical activities which define occupational reflection of a future teacher's personality;
 - *activity criterion* (students' activity in periods of practices, executing of actual term and graduate papers, students' scientific research). The activity criterion includes special person-motivated actions of teachers aimed at improving of the level of competences.

The comparative analysis of results obtained at the initial and final stages of the pedagogical experiment at the basic chair allowed to state a change of the levels of formation of teachers' readiness for the vocational-pedagogic activity, improving of the level of skills and habit patterns of projecting activity when executing actual term and graduate papers, improving of the level of formation of general occupational and occupational competences in a period of passing of practices. In total, all these things led to improving of the total level of formation of future teachers' readiness for the vocational-pedagogic activity at practice-oriented training at the basic chair. The range of change of the level of readiness is within 10 – 22% of the average university's level for extra-mural students. It allows to speak about efficiency of the practice-oriented training on the university's basic chair (Zhukov, 2017).

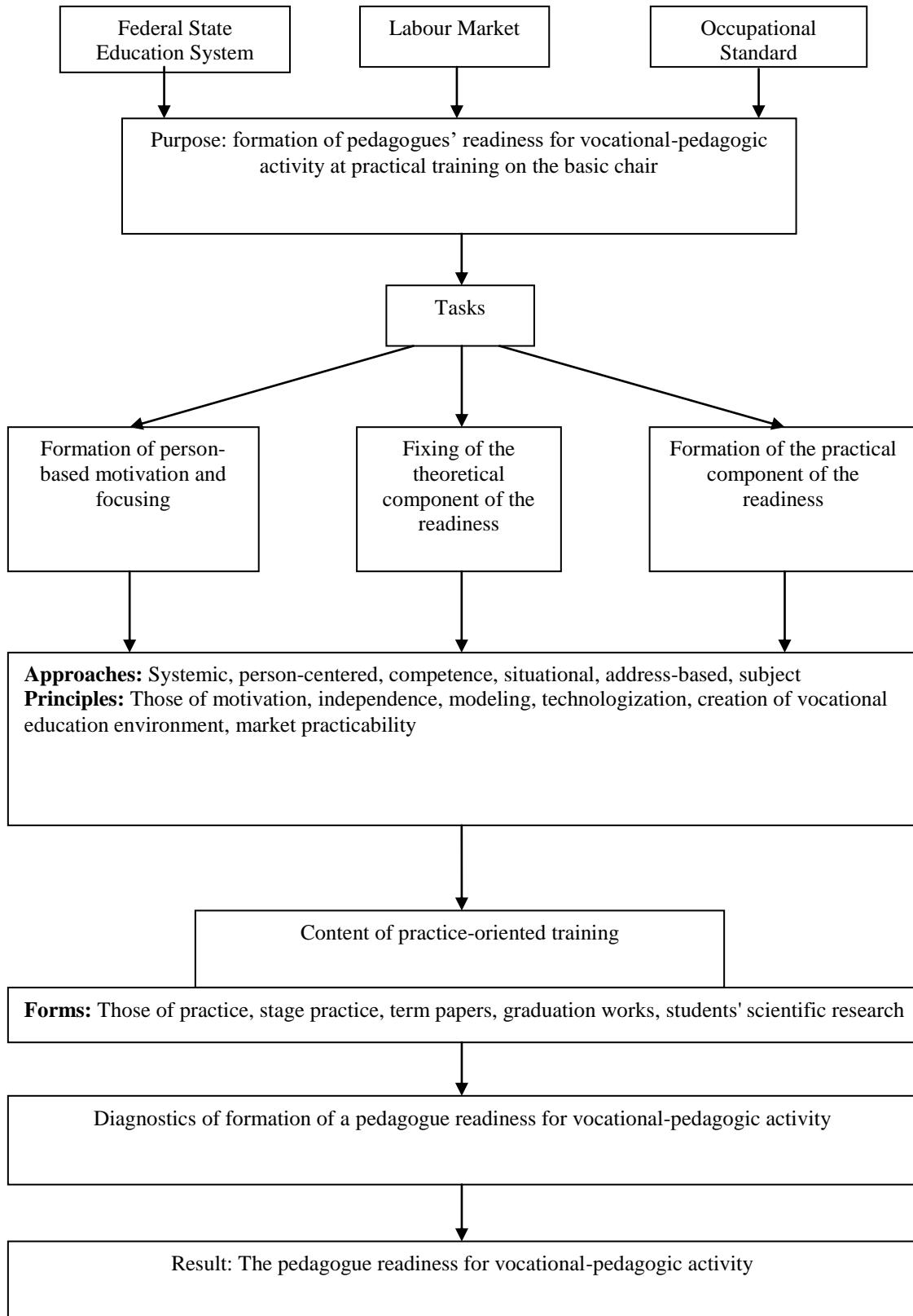


Figure 02. The pedagogical model of practice-oriented training at the basic chair

7. Conclusion

One of modern trends of improving the quality of training of future vocational education teachers is strengthening of connection with production, with the teacher's future working place, i.e. improving of the quality of practical training at practice-oriented training on the basic chair.

Such practical training can be arranged on the university's basic chair in accordance with the process approach and the pedagogical model which is realized at the practice-oriented training.

References

- Davydova, N.N., Dorozhkin, E.M., & Fedorov, V.A. (2018). Educational research networks principles of organization. *International Journal of Engineering & Technology*, 7(2), 24-29. <https://dx.doi.org/10.14419/ijet.v7i2.13.11573>
- Dorozhkin, E.M., Kalimullin, A.M., Migacheva, G.N., & Sokolova, T.B. (2018). Optimization of the subject matter of profile training disciplines for bachelors' vocational education on the basis of occupational standards. *Eurasia Journal of Mathematics, Science and Technology Education*, 14 (3), 859-876. <https://dx.doi.org/10.12973/ejmste/81059>.
- Drucker, P. (1985). How to Make People Decisions. *Harvard Business Review*, 7-8, 11-27.
- Harrington J. & Esseling E. (2002). *Harm van Nimwegen. Business Process Improvement*. St. Petersburg: Azbuka.
- Henner, Ye.K. (2018). Professionalnyye znaniya i professionalnyye kompetentsii v vysshem obrazovanii. [Vocational knowledge and vocational competences in higher education]. *Obrazovanie i nauka - The Education and Science Journal*, 20(2), 9-31. <https://dx.doi.org/10.17853/1994-5639-2018-2-9-31> [in Rus].
- Leskova, I.A. (2018). Subject-centered content of higher education as a factor of efficiency of a specialist's professional training. *Obrazovanie I nauka -The Education and science journal*, 20(7), 9-31. <https://dx.doi.org/10.17853/1994-5639-2018-7-9-31> [in Rus].
- Milner, B.Z. (2003). *Knowledge Management: Evolution and revolution in organizations*. Moscow: Infra-M
- Mutanov, G.M. (2011). *Process management in a higher education institution*. Almaty: Kazakh National University named after al-Farabi.
- Nonaka, I., & Takeuchi, H. (2001). *The Company Is the Creator of Knowledge. The origin and development of innovation in Japanese firms*. Moscow: JSC "Olympus-Business".
- Schunk, D.H., & Mullen, C.A. (2013). Toward a Conceptual Model of Mentoring Research: Integration with Self-Regulated Learning. *Educ Psychol Rev*, 25, 361.
- Senge, P. (2006). *The Fifth discipline. Art and practice of self-learning organizations*. Kharkiv: Max Vasilyev.
- Strokovala, T.A. (2016). Criteria and diagnostic tools for monitoring quality assessment of pre-service teachers' training for practice-oriented research activity. *Obrazovanie i nauka - The Education and science journal*, 3, 29-43. <https://dx.doi.org/10.17853/1994-5639-2016-3-29-43> [in Rus].
- Zhukov, G.N. (2017). Vocational-pedagogic education in the region: Experience and perspectives. Actual issues of vocational-pedagogic education. In Zhukov G.N. (Ed.), *Collection of scientific-methodic works on vocational education issues* (pp. 25-36). Ufa: AETERNA. [in Rus].
- Zhukov, G.N., & Sopegina, V.T. (2015). Basic chairs of a vocational-pedagogic university: Situational approach. *Vocational education. Stolitsa*, 7, 20-22. [in Rus].