

Structural-Functional Model for Corporate Training of Specialists in Carrying Out Mentoring

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Abstract

Embeddedness of mentoring in the professional activity demands from company specialists not only a high level of their psycho-pedagogical formation, but also others which include common cultural and professional competencies for effective corporate training of interns and young employees. The purpose of the article is to develop a structural-functional model of corporate training of technical specialists in mentoring in the conditions of modern production. The leading method is modeling, allowing consideration of this issue as task-oriented and organized process for improving the professional, common cultural competences, and for formation of special competences of company specialists, that they will need to effectively carry out the mentoring activities. The structural-functional model of corporate training of technical specialists in carrying out mentoring in modern production includes objective, methodological, content-related, organizational and procedural and efficiency components. The model aims at integrating professional production and psycho-pedagogical training of teachers, in which the improvement of their professional and interprofessional competencies for conscious and responsible management of their changes in professional development, as well as for the solution of psycho-educational and organizational-methodological problems of interns' corporate training.

Keywords: structural-functional model, corporate training, mentoring, professional and interprofessional competencies

1. Introduction

Mentoring becomes an important mechanism that contributes the modern enterprises' competitiveness and at the same time it reduces vocational education shortcomings. The mentoring necessity increases due to the fact that company employees' external training ignores the specifics of a particular enterprise, and therefore it has to prepare internal trainers - mentors among their staff who is able not only to transmit their own professional experience and knowledge, but also inspire the young trainees to reveal their personal and professional potential.

Analysis of psychological-pedagogical and sociological literature on the studied problem allows us to conclude that the principal quantity of scientific researches (Batyshev, 1985; Klucharev & Pahomova, 2008) on the problem of mentoring was published during the Soviet period 1970-1985. The period was characterized by a mass movement of mentoring and represented by itself a system of social and pedagogical influences of the socialist enterprises advanced workers on the consciousness, feelings and will of young workers aimed at their communist ideology, sustained interest and commitment to profession mastering forming, as well as class consciousness and moral satisfaction sense from engaging in manufacture work developing. Prerequisites that resulted to massive movement of mentoring during this period are: the increased quantity of young people at the enterprises of the country; changes in the relationships among people at work under Scientific and Technological Revolution conditions; pedagogical functions' updating of the labor staff.

The generalization of the best experiences in organization of mentoring movement during the Soviet period showed that this time was characterized by the following aspects: public organizations activities system on mentoring management was justified; a system of mentors selection and appointment was considered; the structure and the content of mentors psychological and pedagogical training in national universities were developed; the system of mentors activity on self - educational process is justified; the role of mentoring organization in vocational schools during students' manufacturing practices and spare time having are revealed; the basic requirements on mentoring

best experience study, generalization, dissemination and its organization are defined; mentoring principles, functions and methods are defined.

In the 90s the study of mentoring problems was interrupted due to the following circumstances: transition to a market economy; priorities and professional values changings; large enterprises closing that resulted to workers and specialists massive layoffs. In connection with this situation the mentoring movement as a means of young professionals' introduction to the profession stopped to exist. However, in the late 90s, some enterprises, solving the problems of their expansion, faced up an urgent need to train a significant number of new employees. So, the mentoring attracts their attention again. In conditions of enterprises transition to innovative development, which requires their industrial, technological and intellectual resources updating, there is an urgent need for mentoring traditions revival.

Mentoring activity having revived its traditions during the modern period in conditions of enterprises computerization and intellectualization is characterizes as fragmentary one and is not based on its combined scientific and methodological support. The level and scale of professional mentors' training and qualification improvement in modern enterprises' conditions are insufficient due to the fact that more than half of the professional knowledge vocational schools graduates have to get directly at the workplace.

In the course of research we have seen that the field of mentoring system application are still expanded, and currently, this system is applied in the following spheres:

- 1) Areas in which technological progress is far ahead the process of professional knowledge and skills updating (IT, manufacture, i.e. sectors where the qualifications of the personnel doesn't demand the needs of the company and adversely affect the results of operations of the entire organization and leads to considerable financial losses.
- 2) Areas in which practical experience and high skills play a crucial role in professional duties implementation.
- 3) Professional activity, which is characterized by a high risk degree.
- 4) The enterprises where routinely technological procedures and equipment are periodically updated (industrial companies).
- 5) Enterprises, which are characterized by the employee turnover and, consequently, there is a need for mass and operational training of qualified personnel (Andreeva & Nechaev, 2013; Shaidullina, 2007).

However, for mentoring system effective organization modern companies should be aware of its following characteristics:

- In conditions of modern enterprises the mentoring should be directed not only to professional knowledge and experience transferring, but also on personal potential development of the employee and to assume a more general training, basic skills;
- Mentoring has long implementation period that require organization and system approach. The fact that the necessary knowledge and skills are not transmitted at once or from time to time, so mentoring is productive when it is specially organized and under control;
- Mentoring requires investment (mentors financial incentives, methodological training materials, additional supplies with possible defects in the work performance by a young worker etc);
- The process of new employees training requires mentor additional efforts, in addition to the main duties, what is to be considered when planning his activities, his work motivation system development and at the recourses cost taking into account (Magura & Kurbatova, 2003).

The modern system of continuing professional education is developing in the context of the modifications caused by socio-economic conditions of the state transformations (Mukhametzyanova & Shaidullina, 2011; Nurutdinova, 2010). At the same time, teaching ideas, concepts, approaches, aimed at modernizing the system of professional training, do not fully provide training for high-tech industry, characterized by computerization, intellectualization and fast growing engineering and technology (Shichkov, 2013; Klucharev & Pakhomova, 2008; Rudavina & Ekomasov, 2011; Tyunikov & Maznichenko, 2005). As a result, more than half of their expertise graduates of professional training have to get directly in the workplace. Consequently, businesses, hiring such graduates, have to find the best ways for their professional additional training, one of which is a corporate (in-company) training accompanied by a qualified mentoring housing, allowing accumulating and passing on their professional experience and knowledge to the younger personnel. However, the solution to this problem is a time consuming task due to the technical specialists' insufficient formation level of necessary competencies for carrying out mentoring, due to lack of psycho-educational component in the training (Zevunov, 2009).

Any organization needs to introduce and develop mentoring because this is not a narrow profile form, but it is aimed to achieve the goals of organization of various current. As the *advantages of modern mentoring* the following are identified: quality improvement of various levels young workers training, taking into account the real needs and interests of companies; reduction of new techniques and technologies development time; creation of unified educational and manufacture production space of a company; reduction of financial expenses for training and staff development; acceleration of new employees socio-professional adaptation process, development of manufacture duties and corporate standards mastering. However, there are some *problems in the research existing in the modern mentoring activities* related to specialists' corporate training of the company to implement this type of activity: lack of qualification of mentoring to innovate transformation reforms in the content and methods of teaching; rapid obsolescence of teaching materials; shift of mentors' interests towards manufacture problem solving etc.

Substantial demand for mentors is observed in the transition of the economy to innovation-based development, which is in need of updating its industrial, technological and intellectual resources, requiring the revival of traditions of mentoring in various fields of professional activity: a professional activity, characterized by a high degree of risk; manufacturing enterprises, which are periodically updating technological equipment and procedures; medical field, which implies a high degree of responsibility for health and life of people; IT production, outpacing the process of updating the professional competencies of staff and others.

The embeddedness of mentoring activity in the professional one demands from company specialists not only a high level of their psycho-pedagogical formation, but also of others such as common cultural and professional competencies that update the need to review this problem as a task-oriented and organized process for improving the professional, common cultural and special competencies formation of professional employees, which they need to effectively carry out the mentoring activities (Masalimova et al., 2014).

2. Literature Review

The previous researches, which were made by Batyshev (1985), Vershlovsky, Wisburg, & Khodakov (1987), Makhmutov (1981), Kozyrin (1976) are devoted to mentoring forming historical aspects study. Mentoring activities psychological-pedagogical bases are revealed in scientific works, made by Batyshev (1985), Neprimerova & Osipov (1978), Kucherenko (1979). Mentoring system's organization peculiarities in the sphere of industrial manufacture are revealed in research of Plotnikov (2006), Charina (2004), Masalimova (2013), Magura and Kurbatova (2003).

Earlier studies in the field of mentors corporate training, mainly are devoted to their professional and pedagogical competence forming. A special attention deserves the model of mentors professional and pedagogical competence forming developed by Plotnikov (2006). The content structure of mentors training includes four basic modules (motivation, information, operational, analytical) which are implemented during the mentors training, and each of which has its purpose, content and structure. The first module is focused on the levels identification of mentors professional-pedagogical competence development; individual job mastering curriculum and educational trajectory development. The structure of the second module includes invariant and variant small modules, aimed at fundamental basic knowledge in pedagogy ensuring. The third module is directed on practical skills forming for certain work situations solving and team pedagogical project development. The fourth module is a theoretical and practical mentoring activity self-reflection.

D. Barieva, in her research offers a course that includes the following sections: "Introduction to mentoring", including mentors job responsibilities, their mission and role in young employees training, prospects of career trajectory; "Mentoring system at the enterprises", which includes the mentoring system main regulations, functional duties of all the participants in mentoring system, and mentors incentives and moral encouragement; "Mentors key business qualities, skills and abilities" including mentors advanced experience, systematization of psychological and pedagogical knowledge. This training course implementation during a year allows increase the share of workers under 30 years of age by 2.5 %, and significantly to improve the quality of new employees training, which is the main goal of mentoring system implementation (Barieva, 2011).

E. Popova offers the following mentors corporate training curriculum: there is an awareness of being a trainee at the first stage of the training ("I am in the role of a trainee") and of the training process ("How knowledge, skills transfer to me"); the second stage—"mentoring", "mentoring process stages", and other notions introduction, theoretical bases using at practical activities of the training participants; the third stage—the team members plan making of penetrating into a new status; the fourth stage—when the coach, being a mentor, shares his beginners teaching experience, correlating his or her practical experience with mentoring theoretical foundations and using thus the mentoring stages; the fifth stage is the question answering that should be given by each member of the group, what qualities must have a mentor and what should he do in order to become a successful teacher for a

beginner (Popova, 2013).

However, such training does not fully reveal modern mentoring andragogical, acmeological, psychological-pedagogical and methodological aspects for the beginner mentor.

By the authors team from the Institute of additional professional education FSBEI (Federal State Budget Educational Institution) “Kazan national research technological University” mentors corporate training curriculum was developed, directed on their professionalism and competence level increasing (Ivanov et al., 2010; Starshinova et al., 2007)

However, the presented curricular do not completely take account of mentoring management aspects and require revision of its methodic (technique) part to optimize adults educational activities psychological-pedagogical support.

3. Terminological Framework

The analysis of normative documents on mentoring at the enterprises of Russia, JSC Tatneft, JSC “Severstal”, JSC “LUKOIL”, Kazan state gunpowder plant has allowed to reveal the essence of the following concepts related to the research problem:

Mentoring is one of the training forms at the workplace, aimed at young worker’s applied professional and cultural competences development.

Mentoring activities—activities aimed at the formation of corporate and development of applied professional competences of young workers to overcome information and valuable barriers in professional activities and their social and professional adaptation, as well as the young specialists potential disclosure with the purpose of individual professional trajectories defining in their development.

Mentor is an experienced worker who is responsible for planning and organization of his trainee’s effective professional development program and promote his trainee’s social and professional adaptation at the enterprise.

Intern—young worker or specialist, adopted on permanent work and carrying out his professional work under the guidance of the mentor for one year.

Corporate training is the process of employees knowledge, skills and competencies improving at the enterprise on the educational programs developed in cooperation with professional education institutions, research institutes and enterprises in a unite orientation and taking into account the interests of both the students and the whole enterprise to ensure its innovativeness and competitiveness.

4. Results and Discussions

4.1 Aims and Goals

The goal of modern mentoring is aimed at young workers corporate forming and professional competences development to overcome information and valuable barriers in their professional activities and their social and professional adaptation, as well as their potential revealing with the purpose of their individual professional development trajectories defining.

The objectives of modern mentoring are: young workers training and education; increasing of productivity at manufacture, new and experienced employees quality improving in accordance with the standards and regulations, which were adopted at the enterprise, young workers corporate culture forming, participation in corporate standards implementation and their continuity ensuring, young workers career opportunities providing, reduction of staff turnover, a cohesive team of the company forming, the company image forming.

4.2 Functions

Having based on these tasks, the following functions of mentoring activities can be defined:

Organizational and management function, which means the control of the young employees corporate training process, forestalling management providing, young employees motivation management model’s creation, young professionals’ team projects management.

Socio-pedagogical function, which aims at socio-professional adaptation of young professionals, corporate culture and education, their potential revealing for their identity in individual professional development trajectory selecting.

Organizational and methodological function, which involves the development of training and methodological support of young employees corporate training, mentors training, development of motivations system, effective methods and teaching materials development for young workers training, ratification of regulations on mentoring (Zamanbekov, 2013).

Information and consultation function, which means an effective and systematic transferring of professional knowledge and experience to young employees, the accumulation and enhancement of enterprises advanced experience (Islamov, 2013; Kozhuharova & Branenkova, 2010).

Correction and reorganization function, which is directed on the adjustment and updating of the content and technology of young workers corporate training to be able to meet the modern enterprises requirements (Andreeva & Nechaev, 2013).

4.3 Regularities and Principles

In the justification of the principles of corporate training of technical specialists in mentoring implementation in the study the socio-economic pattern was established, consisting in the fact that the continuity of this process is due to the changing realities of manufacture, modernization of technological processes, introduction and use of the latest scientific and technological achievements in terms of innovative manufacture, which expand the work of a company specialists and need to combine jobs, which leads to the need for additional training in manufacture of its involvement with mentoring housing. This pattern defines a new semantic content of social and educational patterns of process development:

- The efficiency of the mentor' corporate training is provided with the unity of the two company specialist activities - professional and mentoring.
- The continuity of mentors' corporate training is achieved in terms of educational and industrial space of a company that promotes conservation continuity of institute mentoring, tolerance and openness to new ideas and forms of mentoring in the terms of modern manufacture.
- The integrity of the process is provided by the unity of its organizational, educational and psycho-pedagogical components.
- The productivity of corporate training is provided by the interaction of professional education institutions, scientific research institutions and companies.
- The integrity of the process is reached at interprofessional interaction of corporate training participants for collective decision-making and corporate knowledge-providing.
- The effectiveness of this process is provided by the integration of professional-industrial and psycho-pedagogical training of mentors.

For the study of phenomena and their ordering there should be some kind of a conceptual "bridge", which is possible only in the allocation of system-factors that determine the behavior of the system. In this study, such system-regulatory standards are the principles, which universality proves their applicability to the study of mentors' corporate training, not only of the number of technical experts, but also other areas of professional activity:

- Integration of manufacture and teaching activities, that allows to optimize the process of mentors acquiring not only professional, but also inter-professional competencies, facilitating the transfer of professional experience to young specialists and accumulation of collective knowledge of a company.
- Tradition and innovation, involving, on the one hand, support for already established traditional ideas, concepts and the established experience of mentors' corporate training, and on the other—constant renewal of its content and technologies in accordance with the latest developments in engineering pedagogy
- Structural and functional unity, suggesting interrelation and interdependence of organizational and structural, substantive and procedural components of corporate training of technical specialists in the implementation of effective mentoring to ensure the integrity of the whole process of corporate training.
- Outrunning preparation, that involves an interaction of professional education institutions, companies and scientific research institutes, promoting the outrunning formation of the necessary competencies for the effective implementation of students' and young company workers mentoring activity.
- Complementary interaction that implies an intellectual potential abilities interchange of subjects of corporate training, that leads to the professional growth of both trainees and mentors
- Professional diversification, that assumes unity of professional-industrial and psycho-pedagogical training of mentors, providing them with the opportunity to select additional specialty areas, and combining it with the main (expert in the field of engineering pedagogy, researcher, teacher etc.), that is an effective mechanism to promote their preparations for the implementation of mentoring.

4.4 The Content of the Model

Thus, the structural-functional model of corporate training of technical specialists for carrying out mentoring in today's production includes *the objective* (goals, objectives aimed at the formation of skills represented in the competence model of a modern mentor); *methodological* (approaches, principles); *content-related* (formal models, non-formal and informal professional and in-plant training); *organizational and procedural* (pedagogical mechanisms, organizational and pedagogical conditions, scientific and methodological support of mentors in corporate training) and *efficiency components* (criteria and indicators of the mentors' competences formation level: corporate, communicative, research, management, foreign language, psycho-educational, methodical and coach-competence). This model aims at integrating the professional production and psycho-pedagogical training of specialists of a company in their corporate training, in which the improvement of their professional and interprofessional competencies happens, that are an integral feature of a modern learning organization and are a guarantee of improving the quality of its other sub-systems (Figure 2).

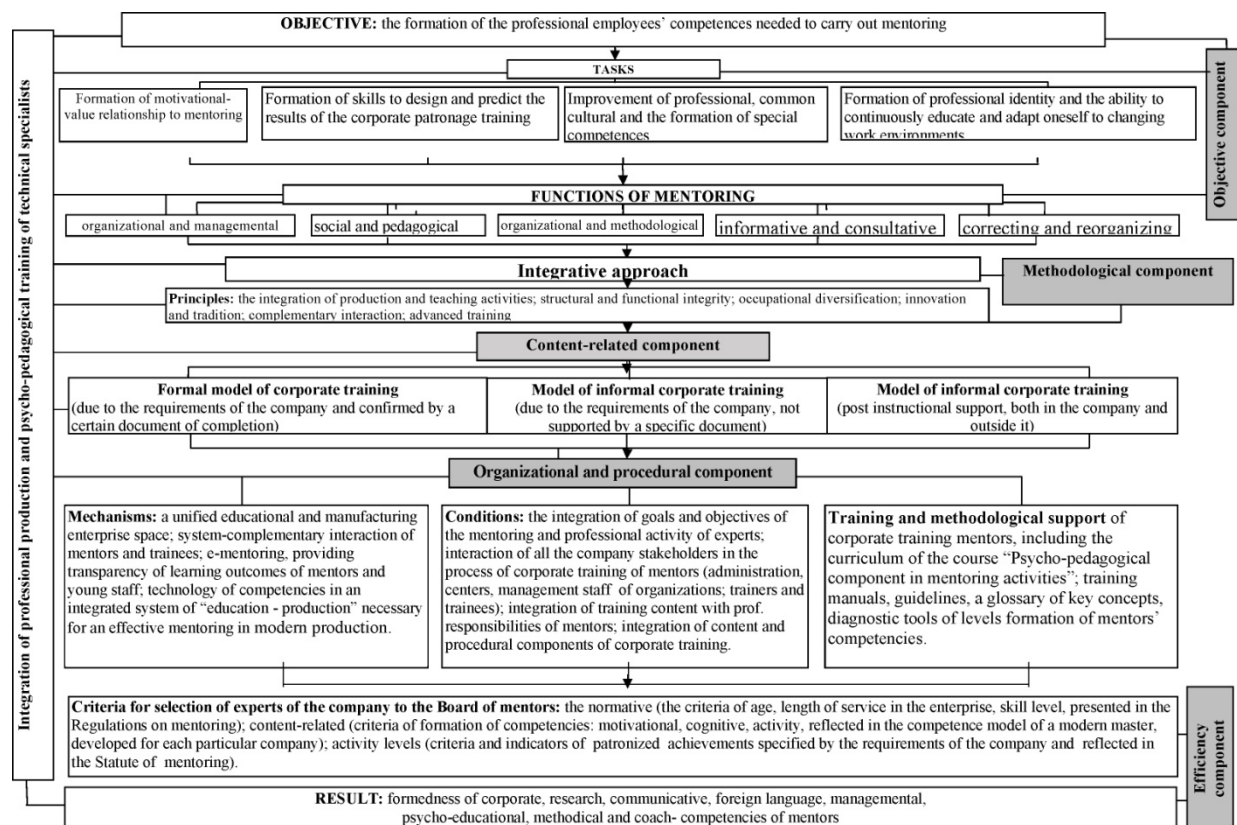


Figure 1. Structural and functional model of corporate training of technical specialists for carrying out mentoring

4.5 Practical Recommendations

To improve the process of young staff's corporate training and to optimize mentoring activities in modern enterprises of Russia, practical recommendations for mentors, for the Council of mentors and for enterprises heads are developed:

4.5.1 Recommendations for Mentors

Recommendations for mentors: discussing with a young employee his preferences, interests, abilities and achievements, his specialty, which he got in a high vocational school, novelty, practical relevance, opportunities and feasibility of his final qualifying work results' implementing at the enterprise; the study of the young employee to identify his individual psychological characteristics; introducing the corporate values, enterprise's traditions, administration, mentors, staff, and other trainees to a trainee with the aim of his rapid adaptation; introducing the structural units of the company or enterprise to the trainee; assisting the trainee in his study of enterprise's legal and regulatory literature; instructing the trainee about socio-economic characteristics of the region; systematic monitoring

of tasks, which were entrusted to a young professional and his timely assistance when he need it; assisting the trainee in his own professional development programs' making; helping young professionals in introspection, organization of their professional development; answering questions of a young employee; forming of a young employee motivation to perform professional activities, to interact with the team; employees learning of regulations and forms of interaction through e-mentoring; trainee teaching of characteristics and possibilities of electronic corporate university; trainee assisting not only in professional and career development, but in personality potential revealing; taking into consideration the trainee not only as a young and inexperienced employee, but also as a potential young professional who is capable to generate new ideas (Masalimova, 2013).

4.5.2 Recommendations for Mentors Council

Recommendations for mentors *Council*: Organization of the mentors selection procedure in accordance with not only normative criteria (age, length of service in the enterprise, skills level), but also the competency ones (their corporate, research, communication, management, foreign languages, psychological, pedagogical, methodological and coaching competencies); mentors instructing of their functional duties in young employee corporate training; implementation of timely diagnosis of psychological, pedagogical, methodological and coaching competencies forming of mentors; lectures organizing and lecturing, seminars, psychological trainings, debates and roundtables for mentors preparing in order to master the effective teaching technologies in corporate training of young staff; national and international experience of mentoring activities study and dissemination, as well as its adaptive capacity identifying for a particular company; organizational, methodological, informational and consultation help providing for mentors; attracting of mentors and trainees to organize and compete in contest "Best Mentor"; taking into account and assessment of both quantitative indicators (number of trainees, who were trained by mentor) and qualitative ones (mentor's creative initiative, his skills improving, etc.) when selecting ways to motivate mentors; new ideas auction organizing, during of which mentors have the opportunity to share their experiences of trainees corporate training; regular communication with the trainees about their attitudes to their mentors to identify interpersonal and professional problems they have; explaining of the peculiarities of mentors activities in electronic mentoring, providing transparency of trainees corporate training's and experienced trainers activities' results to mentors, during of which the exchange of professional knowledge and experience occurs; explaining the features in mentors and trainees complementary interaction, involving their professional and complementary cooperation, who is interested not only in their professional duties, but also in other areas of industrial activity; monitoring of young trainee's professional development in order to predict and prevent the risk of his being more intelligent than his mentor; development and improvement of the regulation on mentoring at the enterprise; developing of perspective directions, which can improve the mentoring activity.

4.5.3 Recommendations for Managers

Recommendations for managers: creation of a unified educational and manufacturing field of the company; regulatory, scientific and methodological support of mentoring activities; social partners search for mentors training courses organizing; integration with high vocational schools in order to select perspective students for their training and work in a particular company; development of regulatory mechanisms of mentors motivation system controlling; selection of experts for enterprise mentors Council, which is based on the following criteria: management, research, corporate, communication, foreign language, psychological, educational, teaching and coaching competencies; organization of systematic qualification improvement of mentors; controlling over the activities of the mentors Council; coordination of members, who takes part in corporate training dealing with common and private problems of the enterprise; analysis of mentors activities results in achieving the objectives of mentoring; the mentoring process documentation accompanying (publication of the draft order "On mentor appointment"; controlling the development of trainees individual adaptation programs, as well as the completion of the mentoring period); contacting with the mentor and the trainee to provide them with the necessary assistance; constructive use of foreign experience on mentoring activities taking into account the best national traditions of mentoring system; council members' rotation providing for their horizontal and vertical mobility; methodical recommendations develop with the aim of mentoring activities more effectively implementing.

5. Conclusion

It has been found out that the developed structural-functional model of corporate training of technical specialists in the implementation of mentoring in modern production allows you to organize the process of preparing mentors for corporate education directed at the continuous and systematic improvement of their professional, common cultural and the formation of special competencies for the conscious and responsible management in changes of their professional development, as well as for psycho-educational and organizational-methodological problems solutions of corporate training interns, providing, thus, information confidentiality, cost-effectiveness, the competitiveness of

companies, as well as the continuity of their mentoring housing.

Article submissions may be useful in practical terms for professionals and managers of the industrial centers of enterprises in the selection and allocation of mentors; for specialists of companies engaged in mentoring activities with corporate training of young personnel; for Training and retraining of personnel Centers in the selection and structuring of the content of corporate training for mentoring.

In view of the results of this research a number of scientific issues and the way forward can be identified for further consideration: the deepening and widening of certain provisions laid down in the article related to the formation and accumulation of psychological and pedagogical potential of mentoring; development of scientific and methodological support of the electronic mentoring in order to do large-scale corporate training of both trainees and mentors.

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