

Professional Competence Development of the Social Work Specialists in the Period of Study in the System of Additional Education

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Abstract

The goal of this work is the study of psychological-pedagogical approaches to the understanding of the idea of professional competence of social work specialists as well as the role of study in the system of additional educations in professional-personal development of the listeners. In the process of study of this problem we define main professional competences of a social work specialist, in particular, special, communicative, analytical, reflexive, analytical, motivation-personal, social, individual. The specific nature of the educational space with the effective approaches, technologies and forms of education of the adults in the system of additional education and its influence on the development of the specialists' professional competence are represented in this article.

Keywords: professional competence, social work specialist, education, educational space, professional-personal development

1. Introduction

1.1 Introduction to the Problem

Modern conditions of the Russian society development, ever growing demands to the specialists of any level make the issue of professional competence urgent. Federal Law #442 "About the foundations of social service", introduction of professional standards contribute to the constant increase of professional level of the social work specialists.

Today the effective specialist is a specialist who properly and quickly response new social expectations, who can develops dynamically and creatively, improves professionally ad constantly renews his/her own personal resources. Russian society is interested in the establishment of a person of a modern specialist, who can socialize effectively and who has professional competence which would contribute to the providing of the personal comfort, effectiveness of the professional activity.

1.2 Definition of "Competence"

Raven (2002) assesses competence as a system which consists of the whole of cognitive, emotive and conative components of the effective behaviour. According to Veyland (2002), a competent person is a person who "can combine knowledge and skills in order to solve some definite problem", he/she knows "how to do something that he/she wants and must to do as a bearer of definite profession effectively".

Zimnyaya (2003) distinguishes the concepts of "competence" and "adequacy", she explains the concept of adequacy as "an intellectually and personally conditioned experience of the social-professional activity which is based on knowledge".

The issue of professional adequacy is today one of the urgent questions both in industry and education, it is studied in the works of Russian and foreign scientists. The definitions of professional competence as "a profound knowledge", "ability for active performance of activity" (G. K. Britell, W. E. Blank) and some others which exist in the foreign literature do not fully reveal the essence of this concept. The problem of professional competence

is actively studied by the Russian psychologists and teachers.

According to Zeer (2003), a professionally competent worker is a specialist who “has knowledge, skills, qualities, experience and individual style of activity which are necessary for the qualitative and effective work”. Markova (1996) considers that the professional competence is “the combination of such psycho qualities as mental health, which allows performing activity independently and responsible, as the possession of the skill to perform definite labour functions”.

2. Methods

The important component of professionalism is the characteristics of professional consciousness of a specialist. A. K. Markova underlines the importance of the professional self-consciousness and characterizes it as “the complex of a human’s concepts as a professional, this is the whole image of oneself as a professional, the system of relations and mindsets to oneself as a professional” (Markova, 1996). Professional self-realization of a human is connected with the realization of oneself in the professional sphere. Unlike the self-consciousness in general, which basis is the realization of oneself as the subject of one’s own activity and development, in professional self-consciousness the content which is connected with the professional activity, i.e. the projection of all the components of self-consciousness on the professional activity is of greater importance (Lebedev & Timofeeva, 2013).

Professional competence of a social work specialist is a personal resource of the professionalism in general? and the components of the competence can be represented in the form of successful professional activity, which includes work with a customer, analysis of a problem, communication, warning and conflict solving as well as increase of the qualification level both by means of study in the system of additional education and self-education.

Professional competence of a social work specialist is a wide concept which includes theoretical knowledge and its practical application, axiological orientations and integral indices of its culture (speech, way of communication etc.).

2.1 Professional Competence of a Social Work Specialist

In the process of study of this problem we define main professional competences of a social work specialist, which include special, communicative, analytical, reflexive, analytical, motivation-personal, social, and individual.

Special competence includes professional skills, understanding of the essence of purpose of the work of social work specialist, mastering norms of professional activity and high effectiveness.

Communicative competence includes mastering norms of professional communication, ability to communicate thoughts clearly, pursue, transfer information, ability to collaborate, readiness for changes in interpersonal relations and ability to influence these processes, arrange and carry out the dialogue, ability to awake society’s interest to the profession and aim it to the solving of a client’s needs.

Organizational competence includes: mobility, activity, skill of planning, adequately assess the results of activity, skill of control ones behaviour and organize work on one’s own.

Analytical competence includes: analysis, synthesis, comparison, generalization, concretization as an intellectual quality as well as professional thinking, independent solving of a client’s problems, ability to analyze and generalize foreign, regional and one’s own experience of the social work.

Reflexive competence is revealed in the presence of the positive Me-concept, self-value, ability to adequately assess the results of one’s own activity and level of one’s own professional-personal development, as well as such qualities as creativity, imagination and determination for the collaboration. Reflexiveness performs the role of controller of personal achievements, professional development and self-improvement.

Motivational-personal competence includes: presence of the stable professional motivation, readiness for study, self-education and self-development, creative self-realization, formedness of personal qualities, thinking and axiological orientations, ability to set goals, plan and perform personal development, presence of spiritual and moral values, empathy, respect of the representatives of the other cultures.

Social competence is an integrative, personal quality which is revealed in adequate solving of professional and social tasks, social responsibility, ability to take responsibility, cooperative performance of decisions and participation in their implementation, tolerance as well as ability to forecast, control and solve conflict situations. Social competence is a complex system of knowledge, abilities and skills which are necessary for the social activity.

Individual competence includes: knowledge of job description of one's own profession, comprehensive professional self-consciousness, acceptance of oneself as a professional, adequate self-assessment, internality as the vision of reasons for success/failing oneself, support by one's own past experience of professional activity, usage of the results of one's own professional development for the clients' benefit (Simm-Severskaya, 2003).

The above mentioned competences cannot be considered separately since they are of integrative, whole character while being the product of professional training in general.

2.2 Components of Professional Competence

The attention should be paid to the fact that Karavanova points out such psychologically oriented structural components as knowledge and skills which represent cognitive component, characteristics of thinking, which represent intellectual component and experience, behaviour, communication as activity-behavioural component (Karavanova, 2012). This allows to specify the content of professional competence concept both of personal, integrative education which includes the person's knowledge system of oneself and society, abilities and skills of behaviour in the society, and personal qualities of a social work specialist, his/her motivations, axiological orientations which enable integration of inner and outer resources in order to achieve some significant social goals.

3. Results

3.1 Education in the System of Additional Education

Dynamic development of the Russian society under the conditions of market economy sets up main claim to the social work specialist which consists in constant professional-personal development and presence of professional competence. One of the solutions of the set tasks is the study in the system of additional education.

Constant study in the formation of professional competence of a specialist is of greatest importance. Retraining and advanced training courses contribute to the formation of the system of continuous education. The organisation of the developing professional-educational space which contributes to the formation of beneficial conditions in the process of teaching social work specialists is the protector of their professional-personal success.

3.2 Content of Professionalism

Content of professionalism of a social work specialist is the development of the specialist him-/herself, his/her values and abilities, professional competences, needs, creativeness. The results of this process are the account of psychological factors, organisation, structuring and balance of the inner world of a social work specialist and creation of necessary conditions for it.

Important moments are individual suppositions of success in professional activity, i.e. motives, interests, competence. Wish for self-realization, high professional and personal standards, sufficient level of professional perception and thinking, professionalism image and all the subjective, which contributes to the increase of professionalism are very important psychological factors (Derkach & Zazykin, 2003). Ognev points out that "... these factors are usually used while explaining the reasons for professional growth or professional decline" (Ognev, 2003).

Along with the investigations of personal development through education, a lot of works are devoted to the professional development of a person (Ananiev, Klimov, Markova et al.). Development of qualities which are necessary for the performance of professional activity and psychological structures (professional self-determination, professional self-consciousness, thinking, memory etc.) can be implemented under the conditions of activity performance (Leontiev, 1975)

One of the most important courses of a specialist's professionalism study is its study in combination with the professional-personal development as a subject of labour. Zavalishyna considers that concretizations the main meaning of "the social situation of development", as "Social situation of professional development"; "...this is a system of outer (social-professional) and inner (individual) factors which influence the process and result of professional establishment. The outer factors are the requirements to the individual and social-professional abilities, conditions which are applied to him in the course of professional development. The inner factors are professional claims and abilities of an individual his/her counter claims to the conditions of professional development" (Zavalishyna, 2004).

The analysis of works devoted to the personal development of a trainee (Bozhovich, Vygotskiy, Leontiev et al.) speaks for the fact that a person can develop with the help of formation of conditions for self-development, self-realization, self-improvement, self-control, self-definition, self-education and other positive expressions of

selfness of a human during educational process.

3.3 Psychologically-Pedagogically Approaches to the Teaching of Adults

Main psychologically-pedagogical approaches of study are personally pragmatist, personally oriented, personally developing (Bondarevskaya, Zimnyaya et al.); theories and technologies of programmed teaching and algorithmization (Krauder, Landa et al.), stage-by-stage formation of mental efforts (P. Ya. Galperin), problematic teaching (Matyushkin), teaching activity and developing teaching (Zankov, Markova et al.) which are aimed at increase of effectiveness of trainees' educational activity.

Professional-personal development of the listeners in the period of teaching is possible under the conditions which contribute to the development of a social work specialist's activity as well as his/her personal freedom in decision making. Professional growth is performed under the conditions of creation of psychologically-pedagogic space where professionalism development is a value, requirement, reality. Active interpersonal collaboration which helps in creation of conditions for information exchange is characteristic for the developing professional-educational space (Abulkhanova-Slavskaya, Bratus, Mudrik et al.).

It is necessary to remember that the psychologically-pedagogic conditions of professional development of a specialist in the course of study include presence of educational space (Bondyрева, 2005) as a part of a social space of a human where the educational activity, professional-personal development, presence of professional reflection, interaction with clients etc. are performed.

Under the conditions of the system of retraining and advanced training of social work specialists this is implemented by means of technologies of subject-subject interaction, personally oriented technologies, competent, problematic and other approaches. However active position of the listener is the necessary condition for the professional and personal growth and achievements, self-realization in professional activity.

Moral activity of a listener contributes to enrichment of the existing values, interests, orientations in the professional activity and creates new ones.

Intellectual activity is the basis for the improvement of professional competence.

Creative activity contributes to the original, individual nature and efficiency of the ways of self-realization of a social work specialist. (Karavanova, 2012)

The effectiveness of the structural interaction of a listener with all the participants of the educational process is revealed in reflection, ability to take the position of an observer, investigator as regards both to one's own deeds, actions, and to the same things of the others. As the result, self-evaluation, self-development, self-actualization and self-realization are developed.

Professional reflection of a social work specialist, who is in the role of a listener along with all the participants of education, brings him/her to the understanding of his/her own personal and subjective qualities, level of professional competence. Active participation of a listener in professional interaction together with the participants of educational process controls the commitment to the result and the process itself which means the creation of conditions for self-realization of a listener and motivations of the teaching activity.

4. Discussion

The quality of education in the system of additional education depends on the creation of the atmosphere of collaboration for the teachers and listeners.

The leading parameters of the environment of the system of additional education are personally-oriented standards, creation of equal conditions and opportunities for the effective professionally personal development of the social work specialists, favourable psychological atmosphere, improvement of professionalism of the listeners by means of innovative, scientific and investigative work, creation of conditions under which a person can be an active subject of one's own and other's transformation. While creating developing environment in the system of additional education as a necessary condition for the listeners' professionalism development it is useful to take into account the expression of Vygotskiy about the fact that "the environment is...the source of development in the sense of personal development and its specific human features, i.e. the environment here is not the atmosphere, but the source of development" (Vygotskiy, 1982-1984).

4.1 Educational Space

In spite of the significant investigations of the problems of interrelations of a person and educational space, Zeer and Meshkova consider that these issues still need to be studied. This is applied to the role of educational space in personal development, in his/her self-realization and professionalism development (Zeer & Meshkova, 2007).

Under the modern social conditions the aim of education is the formation of the self-improving professional who can perform self-realization in professional activity. Such a space of additional education can be the atmosphere which reflects potential resources for the development of the listener's professionalism which contributes to the intellectual eyesight, need of self-development, creativity.

The significant component of the educational process in the system of additional education is the person of a teacher, whose life philosophy is the factor of professionally-personal development of a social work specialist.

Taking into account the above said educational space of the system of additional education should be flexible and manageable, heterogenic and individualized. The relations in this space should be built on the basis of mutual understanding, creative mood and consciousness. But the development of a social work specialist's professionalism is conditioned on the one hand by the existence of educational space and on the other hand - by the ability of the listeners to use its opportunities effectively. The more independent and creative the participants of the educational process are, the more of developing potential the educational space acquires. Here we should point out some cyclic nature of the process of development: level of development of educational space is determined by the principles, technologies of the subjects' development, and personal and professional qualities of the teaching team in the system of additional education influence the level of educational space development.

Taking into account the dynamic growth of the volume and complication of the knowledge and skills necessary for the professional activity, the improvement of the educational process in the system of additional education becomes of special importance. The solution of this problem needs the development of effective technologies of education which allow taking into account the peculiarities of the adults. Thus, there is a contradiction between the objective necessity of the improvement of the system of additional education by means of implementation of the effective teaching technologies for adults who work in the sphere of social protection of people, and insufficient development of the respective teaching technologies.

The system of additional education the aim of which is retraining and advanced training of the social work specialists, needs creation of such form of organization of the educational process which would take into account the following:

- The specific nature of the audience (for which the main type of activity is the labour one, i.e. The working specialist who has definite professional experience, knowledge and skills, as well as special motivational sphere of person which is characteristic for the adult person);
- Goals and tasks of the system of additional education as a part of the continuous professional education of the social work specialists;
- A lot of training materials and shorter training time.

Pedagogic theory and practice is in continuous search for the new forms and methods of teaching of adults which activate cognitive activity and creative thinking; definite steps are taken to improve the process of retraining and advanced training.

4.2 Modular Training

Today the Russian system of additional education of social work specialists has some experience of modular training usage as a means for the development of self-educative activity of the specialists. The technological model of retraining and advanced training courses model, based on the principles of the modular training and oriented to the maximum compliance with the professional and personal needs of the listeners and development of their self-educative skills, as well as motivation of self-educative activity, were proved. Traditional system of course training is characterized by the absence or lack of hours in curriculum which are specially designed for self-education as well as by the limited influence of each listener on the selection and correction of content, forms and methods of education. While using the modular training in the process of retraining and advanced training the social work specialists are constantly engaged in the process of management of their own cognitive activity through the system of special technological actions. This model of training allows listeners to manage the acquired material of the training element, module independently, consequently moving from one educative activity to the other in order to achieve the desired result.

Taking into account the fact that the retraining and advanced training system initially means bringing the specialist with his/her professional activity to correspondence with those constant changes which take place, he/she occupies the middle position between production activity and education; this makes the teaching team of the system of additional education to be well aware of the state of both educational sphere and branch of that profession which is represented by that institute. In this case this institute is the Institute for retraining and advanced training of the executive staff and specialists of social protection of people in the city of Moscow

(hereinafter IPK DSZN).

Features of the a modular system use in adult education in the IPK DSZN is that students decide themselves on further training for different modules with more in-depth content. For example, now due to the introduction of the new Federal Law # 442 «On Social Citizen Services in the Russian Federation», a new modular unit on regulatory frameworks in relation to this Law and its practical application in the professional activities of social workers was made. Thus, all innovations are quickly developed and implemented in teaching and educational process in IPK DSZN.

4.3 Focus Area of the Institute

The main focus areas of IPK DSZN are:

- Professional retraining and advanced training of the specialists for the social protection system not only of Moscow, but the Russian Federation, implementation of innovative technologies in the sphere of social work, enrichment of knowledge, skills and abilities of social work specialists and consequently their motivation for the achievement of high results as well as increase of effectiveness of professional competence for the account of continuous professionally-personal development;
- Study, generalization and distribution of the leading experience in the sphere of social work in Moscow and other regions of Russia as well as abroad;
- Organization and carrying out of the scientific investigations, conferences, scientific-methodological seminars which are aimed at drawing attention of the society to the acute social problems, finding ways, means and technologies of their solution;
- Analysis of the foreign experience of the social work in order to adjust it and spread across the Russian system of social protection of the people;
- Development and edition of study, methodological, analytical and reference materials (Lebedeva, 2013).

Presenting information for the social work experts on the ground concerning new results of scientific-theoretical and practical work is an important function in the system of retraining and advanced training, for this purpose traditional lecture-seminar technologies, which differ from the prototypes of those of the higher educational establishments concerning inter-diciplinarity and complexity of content are used.

One of the forms of innovative activity which aim is the creation of conditions for development, testing and distribution of innovative technologies on the basis of institutions of social service is the creation of experimental platforms as the main form of organisation of the joint scientific and experimental activity of IPK and social protection institution, which is performed within the frameworks of implementation of the investigation programmes in order to improve and develop the system of social protection of the people in Moscow (Mkrtumova, 2013)

Since the changes in the informative society occur very quickly and set the requirements to every specialist of the social sphere concerning continuous self-education and qualification upgrade, new forms and means of communication which are based on innovative technologies are needed.

We need such a system of qualification upgrade which can help each listener to build such educational trajectory of training which could completely correspond to his/her professional needs. We need such forms of organisation of qualification upgrade which allows effectively implement personally-oriented, activity approaches which are based on the self-education, individual pace of acceptance of course content. Professional requirements are renewed, in particular the emphasis is transferred from professional knowledge to the level of professional competences and subjective position of a social worker in his/her performing professional activity.

It is informational technologies which provide the modern education with those mechanisms which give the specialists of the social sphere of Russian unlimited opportunities for continuous upgrade of professional education. This is e-learning with the system of remote technologies.

Remote forms of work create the conditions for implementation of the opportunity of continuous self-education through the organisation of an open educational space. There has appeared a possibility of the independent designing of educational route with the account of their competences, professional needs, terms and forms of implementation.

In IPK DSZN there is an opportunity of remote courses and combining of remote and on-site lessons on one course.

The listeners are attracted by the flexible schedule, ability of individual approach to the passing of training

programme and test. The formation of competences for the work with remote technologies is more successful.

When using the remote form of education the listener has to possess such qualities as self-dependence, responsibility and organisation as the remote course means presence of active creative activity of the trainee (Zueva, 2013)

4.4 Psychotechnologies in the Teaching of the Social Work Specialists

Aimed at professional-personal development of the social work specialists IPK DSZN actively uses psychological technologies which, according to Zeer, are the complex of means, exercises of interaction of subjects of the educational process, aimed at active development of the individual. These technologies are different trainings of development and correction of personality, business and role games, group discussions which allow to solve personal psychological problems and what is more important to develop professionally important and personally significant qualities, improve the most important psychic functions (Zeer, 2003)

Peculiarities of use of psychological technologies as active forms of social work specialists training in the system of additional education are revealed in the orientation to the development of professionalism, activation and implementation of listeners' potential, in optimization of the structural interaction of all the participants of the educational process. Psychological technologies which are used in retraining and advanced training of social work specialists are effective and diverse types of psychological help to the social work specialists according to their tasks, forms and methods. In the course of training the listeners actively use psychological consulting and psychological prevention which are aimed at pointing out the structure of Me-concept in order to overcome contradictions between generalized image of professionalism and personal perception of the process of professional development and activity in its different forms: as a definite way of life, as the activity of realization of training-professional tasks, as a process of participation in a definite type of spiritual practice. Psychological consulting is aimed at creation of conditions, which offer:

- Taking responsibility for one's own activity and implementation of its sense;
- Structural re-position of strains, transformation of destructive inner conflicts and emotions into structural ones;
- Help to the social work specialist who performs the role of the listener of the courses, to acquire his/her true spiritual "me", as well as readiness to take social responsibility.

Psychotechnologies should be a required subject of all teaching and educational process at any university. Trainings, business games, workshops, case studies from the social work practice should be a half of the educational process. As one of the features of the psychology of adult teaching is a feature of the application of the acquired in the training knowledge into practice in the short term rather than long-term. An adult ties the result of the knowledge gained during the training period only together with the active use in their professional activities in the workplace. This should be the basis of adult teaching.

Investigations in the sphere of pedagogical psychology, andragogy, acmeology, social science make us to see psychological-andragogical tasks of the system of additional education in the new light. It is necessary to consider the personality of a social work specialist as such which can develop, wants to learn something new, improves his/her professional and personal growth.

All the above mentioned forms, technologies of adults training, creation of educational space in the system of additional education contribute to the professional-personal development of social work specialists as well as increase of their professional competence.

5. Report

Training in the system of additional education helps the social work specialists to become more competitive on the labour market, to get additional opportunities for professional growth. During the period of education the inner activity of a person is activated, it contributes to the general intellectual development of a person, broadens his/her erudition and social circle, increase self-assessment, strengthen self-confidence. Study on the retraining and advanced training courses in IPK DSZN is highly appreciated by the social work specialists, it positively influences their decision making for the further professional development. Not only the system of social protection of people can win from the inner professional education, but also the whole society, acquiring highly qualified specialists who has professional competence.

References

- Bondyрева, S. K. (2005). *Psychological-pedagogical problems of educational space integration*. Moscow Publishing house of Moscow Institute for Psychology and Social science, Voronezh: Publishing house NPO

“MODEK”.

- Derkach, A. A. (1998). *Acmeological foundations of professional establishment of the public officers: Monograph*. Voronezh.
- Derkach, A. A., & Zazykin, V. G. (2003). *Acmeology: Educational medium*. St. Petersburg: Piter.
- Karavanova, L. Zh. (2012). *Professional-personal development of a social work specialist in the period of study in a higher educational establishment* (PhD thesis, Moscow).
- Lebedeva, N. V. (2013). *Training of adults in the system of retraining and advanced training: Monograph*. Moscow. Publishing house “Pero”.
- Lebedeva, N. V., & Timofeeva, O. N. (2013). Personal-professional development of listeners of the retraining and advanced training courses who work in the system of social protection of people in Moscow. *Teacher of the 21st century*, 4, 428.
- Leontiev, A. N. (1975). *Activity, Conciousness, Personality*. Moscow “Politizdat”.
- Markova, A. K. (1996). *Psychology of professionalism*. Moscow “Znanie”.
- Mkrtumova, I. V. (2014). Activity of scientific-experimental platforms on the basis of establishments of social service in Moscow. *Social service*, 3(82).
- Ognev, A. S. (2003). Motivation as a tool of staff management. *Staff management*, 6.
- Raven J. (2002). *Adequacy in the modern society: revealing, development and implementation*. Moscow “Kogito-Tsentr”.
- Simn-Severskaya, O. V. (2003). *Formation of pedagogical competence of a social work specialist in the process of professional training in a higher educational establishment* (PhD thesis, Stavropol).
- Veylland, D. (2002). “Competence approach” in the legal education. *Problems of legal education in the context of modernization of general education: Mater*. Russian Scientific-practical conference. Moscow.
- Vygotskiy, L. S. (1982-1984). *Collection of works*. Moscow: “Pedagogika”, in 6 volumes.
- Zavalishyna, D. N. (2004). *Models of a human professional development. Professional suitability: Subject-active approach*. Moscow Publishing house “RAS Institute of Psychology”.
- Zeer, E. F., & Meshkova, I. V. (2007). Educational environment of college as a factor of formation of the developing professional-educational space. *World of Psychology*, 2.
- Zeer, E. F. (2003). *Occupations psychology: educational medium for students*. Moscow, Ekaterinburg.
- Zeer, E. F. (2003). *Psychology of professional education: Educational medium* (2nd ed.). Moscow: Publishing house of Moscow Institute for Psychology and Social science, Voronezh: Publishing house NPO “MODEK”.
- Zimnyaya, I. A. (2003). Key competences—new paradigm of the educational result. *Higher education today*, 5.
- Zueva, N. K. (2013). *Didactic approaches to the organisation of remote course for the successful professional education of the teachers*. Centre of scientific collaboration “Interactive plus”. Retrieved from <http://interactive-plus.ru/e-articles/conf-8/conf-8-746.pdf>

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