

## STUDY OF THE META-SUBJECT COMPETENCIES CLUSTER OF TEACHERS WORKING WITH GIFTED CHILDREN

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### ABSTRACT

**The relevance** of the studied problem is based on the insufficient information on the professional development of teachers working with gifted children and youth. It also comes from the low level of their meta-subject competencies formedness, which reduces the efficiency of their work.

**The purpose** of this article is to substantiate and describe the cluster of meta-subject competencies of teachers working with gifted children, the research method for this cluster and the revealed deficiencies in its formation.

The key approaches to studying this problem are competency-based and meta-subject. The main research method is a specially developed computer competence-oriented test containing a system of tasks aimed at identifying and assessing the range of working knowledge (experience, actions) and skills to apply competence in practice. The study was conducted in a group of additional education teachers with a university degree who worked with gifted children (average age - 35 years).

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**The main results** of the research are: The substantiation of the cluster of meta-subject competencies of teachers working with gifted children and youth; comparative analysis of the formedness levels for different groups of meta-subject competencies; competence-oriented test; description of main deficiencies of the meta-subject competencies formedness; measures on eliminating these deficiencies.

The paper may be used in conducting the research on revealing the deficiencies in the formation of meta-subject competencies of teachers working with gifted children, as well as and the development of these competencies in the teaching process or improving the teacher's qualification in universities and institutions of additional professional education.

**Keywords:** gifted children, teachers working with gifted children, teacher's professional competencies, teacher's meta-subject competencies, cluster of professional competencies, teacher's professional competencies assessment tools, competence-oriented test, case-study, test assignment, formedness level of meta-subject competencies, deficiencies in the formation of competencies, development of meta-subject competencies.

## INTRODUCTION

Modern education system in Russia definitely lacks teachers who are professionally prepared to working with gifted children. The subject orientation of teachers' professional training and reduced study hours for psycho-pedagogical disciplines in universities certainly do not contribute to the formation of the skills of proper educational activities of children with different abilities organization in future teachers.

The content, forms, methods, means, and technologies of pedagogical activity, as well as the roles and attitudes of a teacher assisting the gifted child are changing. The problem of preparing teachers for working with gifted children and the problem of forming the competencies needed for the implementation of this work are gaining increasing relevance [8].

This research shows that the problem of forming the competencies in a teacher working with gifted children has not been adequately studied yet [2]. The competencies of a teacher working with such children include is the group of meta-subject competencies. They ensure teacher's ability and readiness to solve common professional tasks that go beyond education and allow the teacher to improve the efficiency of working with gifted children [17]. These competencies are also the most undeveloped.

The results of the pilot study of the meta-subject competencies formation level among pedagogical workers (198 people) revealed the problem in acquiring the following important

competencies: informational, research, communicative, management and self-improvement ones. The majority of respondents (71%) showed average (45%) and low (26%) levels of components of the meta-subject cluster competencies development [30].

There are the following tasks the authors have set in this paper in order to study this group of competencies: to define the concept and subject matter of teacher's meta-subject competency; to conduct a theoretical analysis of the problem of forming a set of teacher's competencies and identifying a cluster of meta-subject competencies of teachers working with gifted children; to develop an assessment tool for the formedness of meta-subject competencies; to study the level of their formedness. The paper presents the research results on the formation of meta-subject competencies in a group of teachers working with gifted children, reveals the deficiencies of these competencies, and proposes measures to eliminate these deficiencies.

## **METHODOLOGICAL AND THEORETICAL FRAMEWORK**

Various aspects of preparing both future and already working teachers for working with gifted children are studied in the scientific research of a number of Russian scientists - L.N. Andreeva, L.K. Veretennikova, T.I. Voronova, L.A. Galkina, N.V. Dudyreva, E.A. Ichalovskaya, O.B. Mochalova, E.V. Pazhitneva, T.G. Rakhmatullina, G.V. Tarasova, G.T. Shpareva, etc. The objects of research in scientific work are: the processes of preparing teachers to working with gifted children of different ages; psychological and other forms of the teacher's readiness to working with gifted children; different approaches to work with a gifted child (integrative, developing); processes of interaction with these students in preschool and general education institutions, specialized classes, rural society, summer schools; working with children with different giftedness (creative, intellectual, sport, etc.) [30].

At present, there are many different approaches to defining the giftedness. The authors believe that it is expedient to rely on the definition formulated in the working concept of giftedness. It was developed by a group of leading Russian scientists and edited by D.B. Bogoyavlenskaya and V.D. Shadrikova. The definition is the following: *giftedness is a systemic quality of the psyche that develops through the whole life and determines the capability to achieve higher uncommon results in one or more activities compared to other people* [22].

According to the authors, the concept, subject matter and structure of the teachers' competencies of working with gifted children should be based, on the one hand, on pedagogical problems determined by the peculiarities of gifted children, and, on the other hand, in the approaches that determine the features of teacher's activities.

The pedagogical problems that are to be faced in the process of assisting such children include:

- General problems - the features of educational activities organization and formation of the personality of a gifted child (including the correction of personal problems); the peculiarities of the organization of communication (interaction) with children, parents, other adults; adaptation of gifted children in society (solution of the social problems);
- special problems determined by the age of children and type of their giftedness (intellectual, artistic, technical, sport, leadership, etc.) [30, P. 84]

To form the structure of competencies (i.e., teacher's ability and readiness for activity), the authors chose two interrelated approaches - *competency-based and meta-subject one*.

In this research the *competency-based approach* is considered in the modern paradigm of interdisciplinary education as an open order for education, a kind of tool for improving the social dialog between higher education and the world of work (V.I. Baydenko) [3]. This approach emphasizes the result of education, which is not the amount of acquired information, but the ability of a person to act in various problem situations (D.A. Ivanov, K.G. Mitrofanov, A.V. Sokolova). The result is revealed through a set of various competencies (Yu.G. Tatur) [26], the structure of which consists of three components: cognitive component (knowledge and comprehension), behavioral component (practical and operational application of knowledge) and value component (values are the integral part of the way of perception of reality and life with other people in a social context). (I.A. Zimnyaya)[7].

*The professional competence of a teacher here means an integral characteristic that determines the ability of a teacher to solve professional problems and typical professional tasks that emerge from the real pedagogical situations, with the use of knowledge, professional and personal experience, values and affections*[2].

Analysis of theoretical data on the study of *meta-subject approach* as a methodological and theoretical phenomenon in pedagogy (O.I. Glazunova, N.V. Gromyko, Yu.V. Gromyko, M.V. Polovkova, Yu.V. Skripkina, T.I. Fisenko, A.V. Khutorskoy, etc.), as well as of research and practice development in this field (N.A. Zubareva, G.V. Misyulya, E.P. Pozdnyakova, Yu.Yu. Kolesnikov, E.O. Dubrovskaya, I.G. Lukina, etc.) revealed the subject matter of the meta-subject approach in education. The meta-disciplinarity is perceived through the concept of “meta-”, i.e. something universal, integrating (meta-activity, meta-subject, meta-knowledge, meta-skill, meta-method). Thus, here it is a generalized system of concepts that are used everywhere, regardless of the object of the activity. The subject matter of the meta-subject

approach in Russian education is that the content of education is focused on the common thinking paradigms and activities that contribute to the formation of key skills expressed in various meta-subject competencies [31].

This paper shows the possibility of integrating competency-based and meta-subject approaches under the conditions of teachers' professional development. The competency-based approach determines the principles and aims of education, specifies requirements to the educational result expressed in the set of competencies. The meta-subject approach fills the competency-based approach in aspects concerning the key (meta-subject) competencies responsible for interdisciplinary common skills. Competency-based approach transfers the emphasis from the priority of knowledge to the priority of actions, with special focus on skills that allows one to act in new uncertain problem situations, for which there are no available remedies. Meta-subject approach contributes to the formation of inter-disciplinary meta-skills. It should be noted that competency-based and meta-subject approaches do not reject the knowledge paradigm, they only change the emphasis in the perceiving of knowledge. They treat it not as an amount of meaningful data, but as a practical tool for making decisions and understanding problems. Therefore, the integration of competency-based and meta-subject approaches lies in a single ambition to give a person something that would allow him or her to successfully realize him or herself in different spheres throughout one's life.

Thus, the authors consider *teacher's meta-subject competencies* to be *the result of education consisting in the acquired ways of activity to solve the common professional tasks related to the key skills and teacher's skills of working with information, conducting research, building efficient communication, performing management functions and improving himself.*

The paper puts forward a hypothesis about the possible combination of meta-subject competencies in a cluster. Here "cluster" means a bunch, a pack. Cluster (Eng. "bulk, concentration") is a combination of several homogeneous elements, which may be viewed as an independent unit with certain properties. Different interpretations of a cluster have a common core in a *semantic and conceptual integration of phenomena or objects on the grounds of a criterion or feature; this integration results in an integral new formation with a synergetic potential.* Herewith, we have every right to discuss the clustering of competencies [17] There is another viewpoint that the cluster of competencies is a set of closely interrelated competencies (usually three to five in one set) [29].

Following on from the functional psycho-pedagogical analysis of teacher's activity, the authors referred the following competencies to the cluster of competencies of a teacher working with gifted children:

1) *Informational competency*. Scientific literature provide us with quite a lot of definitions of the term “information competency”. For example, it may be described as the integration of social, personal, cognitive, and subject-activity competencies that provides professional mobility of a person and is based on the universal ability to work with different sources of information (O.V. Akulova) [1]. Zaytseva O.B. describes information competency as a complex individual-psychological education on the basis of the integration of theoretical knowledge and practical skills in the field of innovative technologies and a certain set of personal qualities [6]. Another definition is “a set of skills for obtaining and processing information” (A.G. Peksheva) [20]. As an integrative quality of the individual, which results from reflecting the selection, digestion, processing, transformation and generation of information into a special type of subject-specific knowledge, capable of developing, adopting, predicting and implementing optimal solutions in various fields of activity in the context of the informatization of education, the information competency is viewed by S.V. Trishina [28].

Here, the information competency of a teacher working with gifted children and young people means the teacher's proficiency in methods and techniques of working with information, his or her acquisition of skills of analyzing, searching, processing, and transferring the information. This definition also includes applying these skills to solve professional problems, as well as the ability to take into account individual and typological features of gifted children, to ensure his or her proper development, self-determination and self-realization, achievement of success in his or her life [23];

2) *Motivating competency*. Teacher's motivating competency when working with gifted children may be disclosed through three *key indicators* (V.D. Shadrikov, I.V. Kuznetsova, A.V. Karpov). The first one is the ability to create situations that ensure success in educational activities, allowing a gifted child to believe in him or her, to set the child up in the eyes of others. The latter is one of the main ways to provide positive motivation for learning. The second indicator is ability to create conditions for providing positive motivation for gifted children. Another indicator is the ability to create conditions for the child's self-motivation. The last one is the ability to turn an educational task into a personally significant one [30, Pp. 106–114].

Thus, it is true that *motivating competency is viewed as teacher's readiness to master his activities on identifying and forming positive motivation of gifted children for educational activities, to create situations that ensure the positive adoption of educational activities and*

succession in it, to use pedagogical methods to form the human factors in gifted children for the realization of educational activities and increase in their self-motivation [9];

3) *Organization and management competency*. In modern studies, organizational and managerial competency is considered as an essential component of the successful implementation of professional activity (O.V. Akulova, O.S. Anisimov, A.P. Gureev, S.Yu. Stepanov, I.A. Mushkina, N.V. Kuz'mina, V.A. Slastenin, O.Yu. Shavrina, etc.), or as an aggregate of *management competence* (ability to conduct pedagogical analysis, set goals, plan and organize activities) and *organizational competence* (ability to involve students into various activities and to organize the activities of a collective) [30, Pp. 115–122].

Thus, the *organization and management competency* of teachers working with gifted students is viewed as an integrated system of teacher's abilities to identify, accurately formulate, thoroughly analyze the problems of the development of a gifted child, and to find the most reasonable and efficient ways to solve in a context of a particular situation [15];

4) *Competency of research* The teacher's competence of research is considered as a key competence that is meta-subjective in its nature (A.V. Bagachuk, Yu.V. Ryndina, E.L. Makarova, M.B. Shashkina, A.V. Khutorskoy, P.I. Tret'yakov, G.S. Savolaynen). According to scientific literature, this competency includes a set of knowledge and skills necessary to carry out research activities (V.N. Vvedensky, T.A. Voronova, M.A. Danilov, A.N. Zhuravlev, E.F. Zeer, T.A. Smolina, P.I. Stavsky, N.F. Talyzina, M.N. Skatkin, M.A. Choshanov, O.N. Shakhmatova, A.I. Shcherbakov, and others). A.V. Khutorskaya views the competence of research as possessing an appropriate research competency [32]. In the context of the competence-based approach, research competence is considered as an integral characteristic of teacher's personality, including knowledge, skills, values, experience, personal qualities, and reflection in various alternatives (A.V. Bagachuk, T.G. Brazhe, O.A. Kozyreva, V.D. Simonenko, M.B. Shashkina, and others) [16].

Therefore, the *research competence of a teacher working with gifted children and youth* is viewed here as the integrative quality of a teacher, observed in his ability and readiness to organize and support the process of scientific research of talented children and youth in order to achieve socially significant results [27];

5) *Communicative competency*. The concept of communicative competence as a socio-cultural phenomenon and as an integral part of professional competence of a specialist is considered in the works of E.M. Kuz'mina, N.Yu. Mamontova, V.M. Pakhareva, G.K. Pendyukhova, and others. The issues of the subject matter, content, structure, and components of communicative competence are considered in the works of N.B. Burtovaya, Yu.N. Emel'yanov, Yu.M.

Zhukov, V.N. Kunitsyna, V.A. Labunskaya, I.V. Makarovskaya, O.I. Murav'eva, L.A. Petrovskaya, E.V. Sidorenko, and others. A.S. Andrienko, M.V. Dolgikh, N.N. Lomakina, M.V. Tregubekov and others studied the problem of forming the communicative competence of future specialists in the conditions of higher education. Problems of the formation and development of communicative skills and communicative competence are studied in the works of N.N. Bogomolova, E.B. Bystray, Yu.N. Emel'yanov, I.A. Zimnyaya, V.G. Kostomarov, A.N. Leont'ev, T.I. Luk'yanenko, M.I. Luk'yanova, L.M. Mitina, A.V. Mudrik, L.A. Petrovskaya, A.V. Rastyannikova, E.I. Rogov, I.I. Rydanova, and others [30, Pp. 93–99].

Summarizing the above mentioned research, the *subject matter of teacher's communicative competence* may be represented as *the ability and readiness to enter into various (nonverbal and verbal, oral and written) kinds of contact in order to solve communicative tasks in professional and pedagogical activity, contributing to the formation and development of communicative skills in children* [18];

6) *Methodological competency*. The subject matter and content of methodological competency are considered in the works of modern scientists and working teachers: T.G. Gushchina, O.L. Zubkova, N.V. Kuz'mina, A.A. Lyubotinsky, I.V. Usol'tseva, and others [30, Pp. 141–148].

Here, the methodological competence means an *integral multilevel professionally significant personal and performance characteristic that includes knowledge and skills in methodology of working with gifted children. It also means the ability not only to identify and recognize, but also to solve methodological problems arising in the process of working with gifted children and youth* [10];

7) *Tutoring competency*, related to psycho-pedagogical assistance of the educational process of gifted children and youth is considered in the works of the following researchers: L.V. Bendovaya, T.M. Kovaleva, N.V. Rybalkina, A.G. Chernyavskaya, P.G. Shchedrovitsky, and others. They represent tutoring in the aspect of assisting the process of students' individual educational search. This assistance is aimed at motivating the acquisition of knowledge and skills, arranging the conditions for a child to organize an individual educational path and its traversal [30, Pp. 136–140].

Tutor assistance of gifted children is presented in the works of A.V. Zolotareva and A.L. Pikina as a pedagogical activity aimed at joint creation of options for solving the problems of the student's individual development while preserving the uniqueness of his talent, identity of personality, and knowledge structuring within the integrated educational environment [12].



To sum up, the *tutoring competence of a teacher is understood as his readiness for pedagogical assistance of a gifted student through the formation of a student's request for educational activity, assistance in planning, analyzing and presenting the result of a child's development, as well as in solving his individual educational problems* [21];

8) *Creative competency*, a special quality of professional thinking, is characterized by the ability “to go beyond the situation” (Ya.A. Ponomarev, D.B. Bogoyavlenskaya), by the “openness to the outer world” (D.N. Zavalishin), and by exploration activity, a “seeing of the unforeseeable” (D.B. Bogoyavlenskaya), as well as by the supra-situational level of problems identification (M.M. Kashapov) [13]. Theoretical analysis of approaches to the structure of creativity (M.L. Zueva, T.G. Kisileva, M.M. Kashapov, V.D. Shadrikov, F.V. Sharipov, and others) makes it possible to identify its personal characteristic [11].

Thus, *creative competence is the teacher's readiness for innovative productive activity and his or her ability to develop the creativity in gifted children.*

9) *The competency of self-education and self-improvement.* There are different approaches to determining the competency of self-education, for example, the first is viewing it as a set of personal characteristics that determine the possibility of self-education process (O.D. Sal'nikova) [25]. There is an approach of considering this competency as two interrelated classes of competencies: a) the competency of independent cognitive activity (using the methods of scientific cognition, the ability to recognize problems in knowledge, readiness for continuing education, knowledge of the ICT) and b) competency of self-organization and self-management (capacity for reflexion, critical thinking, mobility, initiative, time management, etc.) (V.I. Baydenko) [4]. Another approach is viewing this competency as an integrated personal characteristic that includes knowledge, skills, ways and experience of self-education, ability and readiness to implement this type of activity aimed at achieving personal, professional, and social self-realization (R.R. Sagitova) [24]. Kupavtsev T.S. sees this competency in “the readiness of an employee to constantly and independently acquire new knowledge, skills and abilities that, in the aggregate, are further transformed into the ability to solve emerging professional tasks in new unfamiliar and non-standard conditions at a high level” [14].

Thus, the *competence of teacher's self-education and self-improvement is an integrative characteristic of teacher's personality that includes the motivation for cognition, the ability to set goals and tasks for self-development, using the methods and techniques of self-improvement, the ability to self-regulate this process, reasonable self-assessment and*

*reflexion of the level of one's own development, allowing to develop instrumental and motivational attributes of giftedness in children* [5].

The cluster of meta-subject competencies of teachers working with gifted children was studied with the use of a computer competence-oriented test. This computer test is based on the *case method* (Eng. case method, case study, case-study method, method of specific situations). The teacher is offered the situations to analyze, to understand the problems, to suggest possible solutions, and to choose the best of them [19]. Here, the case is not just a truthful description of events, but a single informational complex that allows understanding and assessing the situation.

The computer test (hereinafter referred to as the Test) has a system of competence-oriented assignments developed for the whole range of possessions (experience, actions) or skills indicated in the competency passports. The content of the test assignments is aimed at assessing the reflex of possessing this competency (actions) and the ability to apply it in practice. A set of test assignments provides a free selection of a range of tasks in different versions.

Free selection of assignments is provided by a computer test program. The Test is generated by selecting a certain number of assignments from one or many categories with their random reordering. The program provides a list of tests for each category.

Test assignment consists of the following elements:

- a single question on the evaluation of a certain skill or possession (actions, experience) with the use of this competency. The question is a formatted text of the case (pedagogical situation), demonstrating the skill or possession of this competency;
- the assignment offers 5 variants in accordance with the chosen type of answers. The variants are the answers with varying degrees of competence (skill or possession) manifestation: wrong, partly correct, and correct;
- each answer contains an estimate of 0, 1, 2 (0 is wrong, 1 is partially correct, 2 is correct);
- each answer has estimate recommendations (a formatted short text - what a teacher can do, what he can not do, what he should learn to do and how to learn it within the content of this particular test assignment). The testee would receive these recommendations after passing the test [30, P. 286].

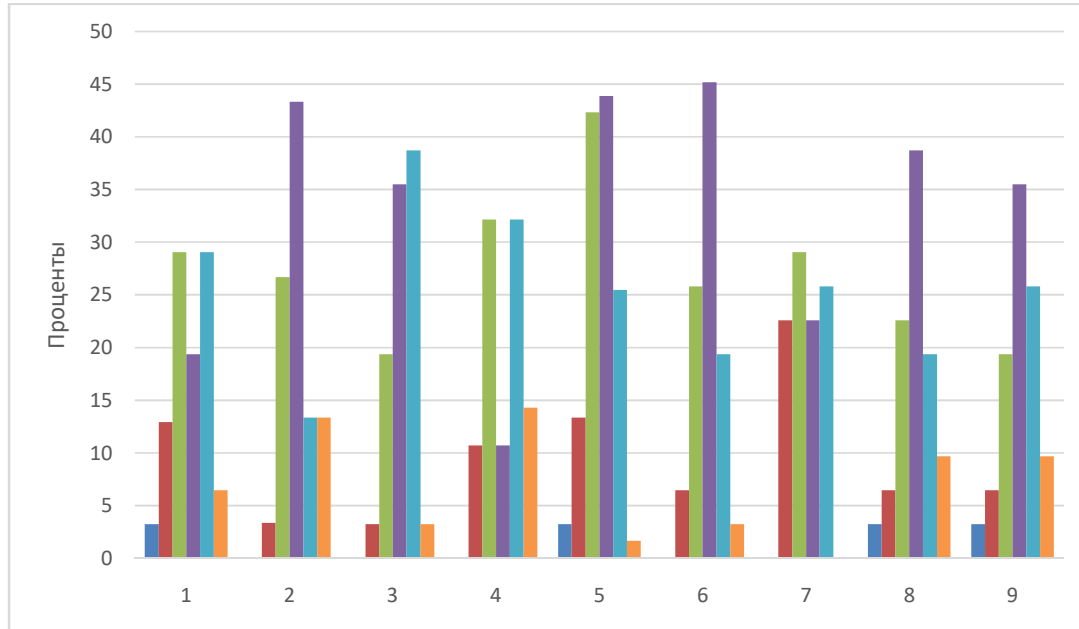
Based on the test results, each respondent receives a grand point average for each competency, characterizing the level of its development (below the basic; basic; higher). He

also gets a recommendation sheet containing the text of the assessments and recommendations according to the selection of answers for each competency. Based on the test results, the system collects statistics database (data collection for the test sessions and their analysis). The system provides storage of complete test results (with the answer keys) of Users and has an option of their export to the xls and/or csv file format.

The statistical test results are available to each User (administration or guidance department of an educational organization) who can analyze the data, both for assessing the level of the competencies necessary for working with gifted children development in the pedagogical staff and for determination of teachers' deficiencies in mastering these competencies [30, Pp. 288–289]. Following on from the test results, the administration of an educational organization may make a decision on forming a request for teachers' further training to eliminate these deficiencies.

## RESEARCH RESULTS

The pilot study of a meta-subject competencies cluster involved teachers of additional education working with gifted children. Their average age was 35, all respondents had a university degree.



**Histogram.** Results of the meta-subject competencies formedness in teachers working with gifted children

	1	2	3	4	5	6	7	8	9
Competencies	Communi- cative	Self- improve- ment	Motiv- ating	Mana- geme- nt	Crea- tive	Tuto- ring	Metho- dologi- cal	Resea- rch	Infor- matio- nal
Levels									
low - 0.33	3.23	0.00	0.00	0.00	3.23	0.00	0.00	3.23	3.23
below average - 0.67	12.90	3.33	3.23	1.71	13.3 3	6.5	22.58	6.45	6.45
average - 1	29.03	26.67	19.35	32.14	42.3 1	25.8 1	29.03	22.58	19.35
above average - 1.33	19.35	43.33	35.48	10.71	43.8 9	45.1 6	22.58	38.71	35.48
high - 1.67	29.03	13.33	38.71	32.14	25.4 7	19.3 5	25.81	19.35	25.81
very high - 2	6.45	13.33	3.23	14.29	1.67	3.23	0.00	9.68	9.68

In general, the analysis of a meta-subject competencies cluster concluded that the majority of respondents had some average level experience in working with gifted children. At the same time, one may also talk mention the heterogeneity of the formedness of teachers' competencies in working with gifted children: different competencies from the cluster are manifested differently. Motivating (75%), creative (71%), competency of self-education (69%), and tutoring competency (67%) demonstrate the highest total score for the manifestation of above average levels (above average, high, very high). The highest levels of formedness are observed in methodological competency (49%). It may be explained by the fact that the study involved the additional education teachers who were the most motivated in working with gifted children. Their success was largely due to their own creative abilities, their readiness to assist their gifted students and to improve themselves. However, they are not yet focused on the reflexion of their professionalism - they are not ready to create and distribute their own teaching methods, to share them with colleagues, that is, they have low methodological competency.

The high level of competencies formedness indicators are shown by less than half of teachers, the above average level - from 10% (management competency) to 45% (tutoring

competency), and high - from 14% (competency of self-improvement) to 39% (motivating competency). This fact also substantiates the above conclusion about the peculiarities of the competencies reflexion in teachers working with gifted children. There appeared a group of teachers who were very good at mastering management competency, that is, the ability to organize their activities with children. Most of the teachers do not yet own this competency. Most teachers work by intuition, whereas the management competency requires the competent mastering of management technologies and increasing their technological development.

Border indicators - low and very high - are observed in less than 5% of respondents. Moreover, such competencies as management, tutoring, methodological, and a competency of self-education didn't show the low level at all, the methodological competency had no teachers with a very high level. It justifies the average level of competencies cluster formedness.

We can see that in certain competencies teachers show a very high level of formedness: the competency of self-education is of 14%, management competency is of almost 15%, and research and information competency is of about 10% of respondents. Respondents show high results in terms of motivating (38%), managerial (32%), and communicative (29%) competencies. It can be concluded that there are teachers who have a good command of these competencies, their experience may be generalized and shared through conducting seminars and extension courses.

It is a fact that motivational competency as a manifestation of the educational activity of the teacher is found among the competencies formed at a sufficiently high level. Therefore, one of the most important practical tasks for teachers is creating proper motivation for the educational activity of students and having their own motives for working with gifted children ("I want to work and I can work").

## **DISCUSSION**

Based on the results of the study, it can be concluded that the knowledge component of competencies in respondents is better formed than skills and experience. It justifies the general tendency of low level of teachers' proficiency in methods, means and techniques of professional activity, their pursuance of the reproductive utilization of ready-made samples, weak willingness to set independent goals and to design new tools for obtaining better results. A large number of works deals with the analysis of the knowledge component of the preparedness of teachers working with gifted children and youth, with the roles of various

categories of teachers in working with the gifted students, with the use of integrative and developing approaches to working with gifted children, with the processes of interaction in various educational environment (pre-school and general education institutions, urban and rural educational institutions, specialized classes and summer schools) [8; 10; 12; 22; 31].

This study has made it possible to identify the professional deficits in teachers in each of the studied meta-subject competencies. These deficiencies have not yet been the subject of a detailed study:

- *Deficiencies in information competency.* the greatest difficulties for teachers come from the competencies related to the use of multimedia educational technologies and the application of Internet resources for the methodological activities organization, like searching and studying the publications, using the electronic libraries. The teachers' ability to organize network educational events for gifted children is low;

- *Deficiencies in motivating competency.* Teachers need to develop their readiness to use different ways of influencing gifted children to improve their educational motivation, ways to activate their creative abilities, methods of involving them into additional types of cognition, as well as the readiness to give full freedom to gifted children in making decisions, setting goals and objectives of their educational activities;

- *Deficiencies in organization and management competency.* Teachers face the problems in organizing and implementing the individual educational route of a gifted student, selecting the forms, methods and techniques of individual and joint learning and peer coaching, as well as in the organization of controlling and analytical activities, including the application of new approaches to pedagogical estimation of educational results;

- *Deficiencies in research competency.* Teachers do not have sufficient proficiency in finding and attracting financial resources to carry out research activities for gifted children, methods of designing children's and youth research laboratories, as well as in technologies and tools for evaluating the effectiveness of children's research activities;

- *Deficiencies in communicative competency.* Teachers have a poor proficiency in the techniques of goal-setting for communicative interaction, depending on the conditions of work with a gifted child; they do not know how to choose the means of corresponding communicative impact. They also can not evaluate the results of joint activities with a talented child;

- As for the *methodological competency*, teachers have little knowledge of evaluating and improving the quality of the educational process; do not know how to organize methodological work in methodological associations, departments and other similar

structures; they are not ready to control and evaluate the quality of developed methodological materials, program and planning documentation. They also can't properly methodologically assist other teachers in the development of gifted children;

- In the context of the *tutorship competency*, teachers do not have enough knowledge of methods and techniques of tutor assistance, technologies of individualization of educational activity of gifted children. In general, the majority of respondents underestimate the possibilities of the tutoring model of pedagogical assistance;

- Considering the *creative competency*, the greatest difficulties were caused by issues of mastering the technologies for the development of creativity in gifted children, involving them into independent creative teamwork. The motivation for the creative activity of both children and teachers, insufficient readiness of teachers for their own innovative activity also were a trouble;

- *Deficiencies in competency of self-education*. The use of methods of developing the cognitive activity in gifted children, as well as reflexive techniques for assessing the level of professional and personal development of teachers caused some trouble;

## CONCLUSION

In general, the authors conclude about the reliability of the test, so far the results demonstrate a normal distribution of competency formedness levels. There is a variation in the average score in some aspects. The test results justify the need to develop the of meta-subject competencies in respondents. In the organization of the process of meta-subject competencies formation, special emphasis should be placed on practice-oriented, active pedagogical technologies, methods of overcoming the most frequent professional deficiencies.

## RECOMMENDATIONS

This paper may be valuable to the scientific departments engaged in studying the professional development of teachers working with gifted children and youth, as well as for the general and additional vocational education organizations that provide training and professional development of teachers. Teachers interested in improving their professional development, public and non-governmental institutions of higher education, which are carrying out the modernization of education may also find their interest in this paper.

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