

**IFTE 2018**  
**4th International Forum on Teacher Education**

**FORMATION OF PROFESSIONAL IDENTITY: CONTEXT OF  
TRAINING GRADUATES IN PEDAGOGY**

Elena M. Galishnikova (a), Tatiana A. Baklashova (b), Kamilia R. Sakhabieva (c)\*

\*Corresponding author

(a) Kazan (Volga region) Federal University, Kazan, Russia, galishnikovaem@mail.ru

(b) Kazan (Volga region) Federal University, Kazan, Russia, ptatyana2011@mail.ru

(c) Kazan (Volga region) Federal University, Kazan, Russia, sakhabieva.kamilla@gmail.com

***Abstract***

The modern context of national teacher education is influenced by the social, economic and political changes occurring in the country. It is associated with the technologization, standardization and informatization of the school education, which requires the use of new approaches to training teachers. The problem of professional identity formation deserves special attention. The purpose of this research is to develop, substantiate and test the professional identity formation model of graduates in Pedagogy. The leading methods of the problem investigation are theoretical (analysis of the subject of the study on the basis of acmeological, psychological and pedagogical literature research, modelling) and empirical ones (study and generalization of innovative pedagogical experience, interviewing, experiment). In the course of this research the stages of formation of professional identity of graduates in Pedagogy were determined and the model of their professional identity formation was developed and tested. It consists of the following components: 1) prognostic-purposive component (ability to plan one's trajectory in professional development, to specify its objectives); 2) cognitive component (knowledge of history, basic ideas, concepts, understanding one's attitude to it); 3) value-motivational component (confidence in the career choice, interest in the profession, ability and desire to work in it); 4) emotional component (love for children, sense of delicacy, involvement, tolerance); 5) activity and constructive component (learning experience, participation in research activities, volunteerism, participation in public projects). The results of the research can be used in the implementation of Master programs in Pedagogy.

© 2018 Published by Future Academy [www.FutureAcademy.org.UK](http://www.FutureAcademy.org.UK)

**Keywords:** Professional identity, programme in pedagogy, practical training, teacher, graduate.

## **1. Introduction**

### **1.1. Teacher education: priority of professional identity**

Recently in Russia there are significant changes in the economy, in all spheres of social life, including education, which requires the search for new approaches to the training of specialists, including highly qualified teachers who are able to educate the new generation of the 21st century. Achievement of professional excellence and pursuit of professional competence at world-class standards are the priority for higher education in accordance with the Concept of Long-term Social and Economic Development (until 2020) and the National Doctrine of Education in the Russian Federation (until 2025). In the context of education system modernization the key priorities of teacher training in the higher education are: formation of self-fulfilling personality of an educator, readiness for mobility, possession of critical thinking skills, capability of fully taking social responsibility. Change of the traditional paradigm of education dictates the necessity to freely orientate in the information space, acquire organizational skills that help in scientific research activities. In the matter of the teacher's professional formation and development, the level of acquisition of personal qualities is believed to be important. It is no mere chance that all participants of educational process face such complex tasks. This is caused by the introduction of the Federal State Educational standard of basic general and higher education and professional teacher training standard which prescribe: strict compliance with the continuity of education in order to reduce the risks of duplication of goals and objectives of pedagogical education at different levels (Bachelor's, Master's degrees); involvement in the teacher training process of all participants of network interaction (University-educational organization-education management bodies); providing practical orientation of training; structuring of content and choice of educational technologies with priority of project, research and management activities (Kalimullin, Vlasova, & Sakhieva, 2015; Valeeva, & Gafurov, 2017). By acting in such a manner, we contribute to the formation of a professional teacher who is ready to solve the problems of modern school. Here it is necessary to emphasize that the future teacher's professional identity cannot be considered in isolation from the self-determination process and professional self-awareness development. Thus, the current research problem of the professional identity formation of graduates in theoretical and practical training comes to the fore. Introduction into the real educational process of the professional identity formation model of the future teachers will allow students to define themselves in the profession, to accept purposes and motives of their future activity, to become filled with value orientations, specific to the chosen profession, to recognize themselves as members of the pedagogical community and to determine their place in it. In view of the foregoing, the research purpose is to develop, substantiate and test the professional identity formation model of graduates in Pedagogy, which contributes to their professional formation and development.

### **1.2. Literature Review**

Questions of professional formation of students of pedagogical specialties always attracted attention of scientists. Important theoretical and practical issues of professional development of teachers was studied in the works of Ananiev (2008), Bespalko (2010), Davydov (2003), Leontiev (2005), Kobysheva, & Krotov (2012), Rubinstein (2016) and others. Features of formation of professional competence are analysed in works by Klimov (2007), Derkach, Zazykin, & Markova (2000), Turchinov (1998), Kalimullin, &

Masalimova (2016). A number of publications are devoted to the development and formation of both professional intentions and their subsequent implementation in professional activities (Klimov, 2007; Zeer, 2008). Special attention was paid, in particular, to the development of professionally significant personal qualities that affect the effectiveness and success of professional activities (Shadrikov, 2006).

The analysis of the problem of professional formation of future teachers is impossible without reference to the concept of "professionalism". Professionalism is a characteristic of a personality, which is manifested in the ability to perform job duties qualitatively and reliably, to show high professional level of skills, to enhance professional excellence and constantly improve qualifications. In our opinion, a person can become a professional only if, along with deep knowledge and skills, this person possesses a rich practical experience, professional excellence and high moral standards. As the analysis of psychological and pedagogical literature and many years of experience show, with regard to student youth, i.e. bachelors and graduates, it is necessary to actualize the problem of the professional identity formation. From our point of view, appeal to professional identity as the main core of self-awareness in the development of professional personality will allow to highlight the main stages of its formation, which will inevitably lead to high results of subsequent professional formation. This viewpoint is supported by a number of scientists. A number of researchers believe that the implementation of professionalization contributes to the formation of professional identity (Zavalishina, 2003). In the foreign literature, close attention is paid to the questions of professional training of students: Akkerman, & Meijer (2011), Bonilla (2017), Beijaard, Meijer, & Verloop (2004), Zengele (2017). The analyses of literature from abroad allowed us to point out some important aspects concerning professional identity. Luehmann (2007) noted that professional identity, besides the cognitive aspects of teacher education such as knowledge, must include professional philosophy, passions, commitments, ways of acting and interacting, values and morals of the teacher education. Moreover it is necessary to add that such categories as the beliefs, values, experiences, and ways of acting and interacting are not always used to form professional teaching identity (Luehmann, 2007). In addition it is worth mentioning that students while advancing gradually assume a teacher's frame of mind. Furthermore a teacher identity occurs during teaching practice; the setting in which a teacher's ideas, expectations, preconceptions, etc. are put to the test (Borrasca, 2017). Moreover, there is one point of view (Pillen, Beijaard, & Brok, 2013) that we fully agree with. It concerns the importance that teacher educators and mentors have to take into account. This is about the tensions among the beginning teachers like the following: the change in role from student to teacher; conflicts between desired and actual support given to students; and conflicting conceptions of learning to teach.

Study and analysis of domestic and foreign literature on the problem of the research allow to make a conclusion about the sufficient elaboration of the topic of professional training of specialists in the higher pedagogical education. The scientists devote considerable attention to theoretical and practical aspects of professional development of teachers and to formation of their professionally-significant qualities which influence their efficiency. Professional identity takes a special place in this problematic field. Its distinguishing characteristic is a multi-component character which involves practical experience, value systems, professional ways of action and interaction and etc.

### **1.3. Literature review critique**

Critical analysis of the scientific literature and direct involvement in the process of pedagogical education of graduates allow us to conclude that there is insufficient development of the problem of the teachers professional identity, arising at different stages of professional self-determination and formation of a teacher's personality. Articles and scientific publications on the problem of professional identity have basically the general focus and do not fully take into account all peculiarities of the teacher's profession.

In our opinion, we should pay close attention to the stages of professional identity formation, its components and model of its formation among students of degree programmes in Pedagogy. It should be noted that each stage of the professional identity formation has its own characteristics, and the success of the process depends on the variety of factors: starting from the personal awareness of the alternatives in the choice of profession ending with participation in effective workshops on pedagogical interaction, conducted by talented teacher-coaches, organised for working teacher-professionals. Definition of the teachers' professional identity components, as well as allocation of competency levels for achievement of the set goal, will allow to develop, substantiate and test a model of formation of professional identity of future teachers in the framework of their training in the Master's programmes in Pedagogy. Pedagogical experiment, results of which can be estimated by the defining parameters, carrying out the initial and final interviews with participants of educational process, will testify in favour of or against the developed model.

## **2. Problem Statement**

The existing contradiction between the lack of elaboration of the issue of the future teachers' professional identity (the article presents the results of experimental activity in relation to students of the 2nd course of pedagogical Master's degree programme in the Kazan Federal University) in the theoretical and practical aspects and increasing requirements to the professionalism of the modern teacher from the part of the State and society actualizes the problem of improvement of the teacher training system through development of effective models and methods, which allow to remove the main difficulties of a personality's professional formation process, to form such a multicomponent quality as a professional identity of a graduate in Pedagogy, implementing competence transferring. In the process of solving the problem of development and approbation of the model of professional identity formation of future teachers it is important to take into account the stages of formation of professional identity, their continuity, the main problems of the young teachers' immersion in the profession, different levels and multiple components of the process of forming a professional identity. It is also advisable to fully engage the potential of the school-university partnership, which is implemented in accordance with the principles of networking, and is the basis for effective practical training of future teachers.

## **3. Research Questions**

The problem of formation and development of professional identity of the teacher is one of the most acute for modern systems of pedagogical education all over the world. Being closely associated with the process of self-determination of the personality of the teacher, the process of professional consciousness has a multi-component character and requires special attention from all participants in the educational process. Development and implementation of the model of the future teachers' professional identity

formation will allow to carry out the process of identification with the profession and to form the professional identity. It is expedient to carry out the modelling relevant to the stages of professional identity formation, taking into account its components, providing level competence transferring.

#### **4. Purpose of the Study**

The main task of this research is development, substantiation and approbation of the model of the professional identity formation of graduates in Pedagogy that will allow to carry out the process of identification with a profession and to form a professional identity of the students.

#### **5. Research Methods**

Theoretical (analysis of the subject of the study on the basis of philosophical, acmeological, psychological and pedagogical literature research, modelling; reflective-systematic analysis of the substantiated organization of pedagogical activity) and empirical ones (study and generalization of innovative pedagogical and managerial experience, conversations, interviewing, monitoring; self-monitoring, pedagogical experiment).

The study began on September 1, 2016 (Kazan Federal University). The study involves 68 TE graduates (47 – having a bachelor's degree in Pedagogy; 21- not having a bachelor's degree in Pedagogy) whose major is "Pedagogical Education" (10 profiles). The evaluation of the results of the experimental activity is carried out by statistical processing of small samples (Mann-Whitney Criterion).

#### **6. Findings**

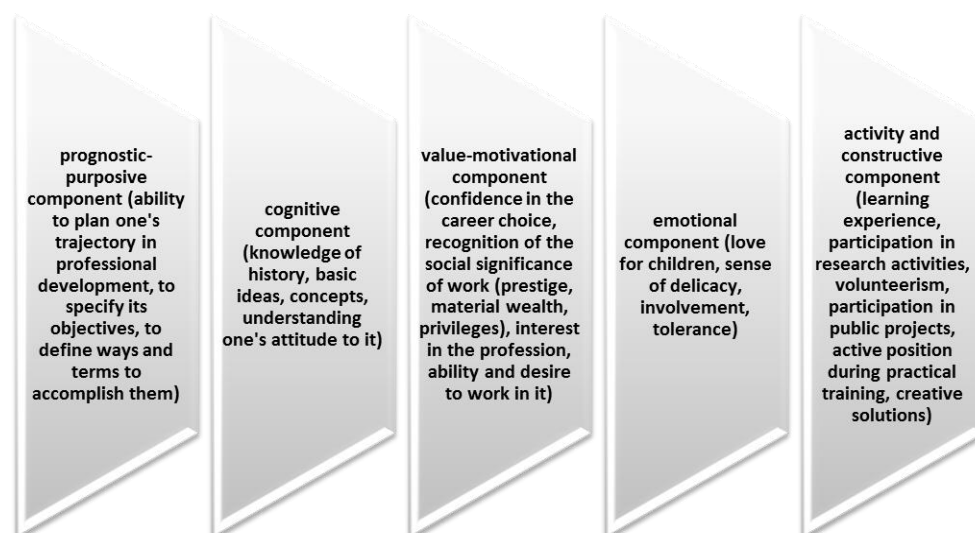
##### **6.1. Professional identity formation: stages, components, levels**

The study showed that professional formation of a future teacher towards the achievement of professionalism is a long and laborious process, based mainly on experience. Analysis of scientific and methodical literature, pedagogical practice, included supervision of professional training of teachers in the university allow us to conclude that the formation of professional identity occurs in stages. Thus, a person goes through several stages, which can be roughly described as follows: 1) stage of alternatives (having an opportunity to choose a profession); 2) stage of preferences (formation of sustainable preferences in relation to a particular profession): the dictionary defines the word as "preference or higher appreciation of one thing compared to another" (Explanatory dictionary, 2001); 3) stage of immersion ("immersion" of the student into the profession by means of practical training, project, research and managerial activity); 4) stage of professional formation and growth (increase of personal, psychological-pedagogical, methodical and educational potentials). Each stage has its own peculiarities, variable priorities, is characterized by different ratio of theory and practice. Thus, the first stage of alternatives and the second stage of preferences actualize priority of timely professional orientation of students (introduction to pedagogy, possibility of realization of pedagogical samples at school, organising the work of classes specialised in pedagogy in the senior level of general education, active pedagogical practices for the freshmen students, implying direct involvement of students in the process of education). The success of the immersion stage lies in the competence of the university, its leadership and teachers. The key component here is practical training, the goals and objectives of which are defined in collaboration by all participants of the school-university

partnership taking into account the priorities of both the school and the University. The content of the audit and extracurricular educational activity in the university should be filled with relevant, practically-oriented disciplines, allowing the student to carry out a smooth transition from the student hood to the teaching profession, to feel as part of it, and, consequently, to form the professional identity. We consider professional identity as a phenomenon of personal self-awareness in the profession and as belonging to the professional community. In the course of studying at the University a graduate student identifies himself with teachers and educators, with the best representatives of the pedagogical community – scientists known from the history of teachers. A significant impact on the formation of professional identity has a pedagogical environment of the institution-the staff of the study group, extracurricular activities, subject teachers, etc. The creation of such an environment dictates the rules of behaviour, forms a belief in the correctness of the choice of profession (Masalimova, & Galishnikova, 2016). In addition, the process of professional identity will be more successful if it is associated with the successful solution of the issue of finding a concentricity through the teacher - student, educator - student, which undoubtedly contributes to the formation of the style of pedagogical interaction. The utmost attention should be given to the pedagogical interaction at the university. It can be challenging even for the graduate students. It is expedient to get away from the usual format of lectures and seminars on pedagogical skills and to actively introduce the technology of workshops in educational process. The potential of the latter will help to solve a large number of difficulties experienced by students of pedagogical universities (bachelors and masters) in induction into the profession (pedagogical communication, public speaking, pedagogical interaction, kinetic culture of the teacher, oratory, conflict resolution, etc.). The stage of professional formation and growth is connected with training in the Master's degree programmes (the number of working graduates often exceeds 70% of the student body), as well as with the post-university education when in the course of practical activity there is an increase of psychological-pedagogical and methodical potential of the teacher. Here, factors of success are aspiration of the teacher to self-development, self-education, readiness to learn from other professionals, ability to control oneself, etc. The tasks of this stage are extremely complex, connected with improving the skills of the working teacher and building up the professional potential. This should be taken into account when developing the content of the Master's training programmes and while choosing educational technologies for the organization of educational process. It is essential to ensure continuity of the Bachelor and Master degree programmes, to avoid duplication of goals and tasks of pedagogical education, to involve all participants of school-university partnership in the process of teacher training, to provide practical orientation of training; to implement the choice of educational technologies with the priority of project, research and management activities (according to Federal Standard of Higher Education).

The study and analysis of the concept of professional identity, the difficulties of its formation, as well as its own experience in the field of Teacher Education, allowed us to simulate the process of its formation in stages, taking into account its components, providing a level competence transferring. The process of the professional identity development involves a sequence of achievement of certain competency levels: 1) normative; 2) intellectual-analytical; 3) creative. The above-mentioned levels can be achieved in the conditions of creating a favourable pedagogical environment, characterized by the atmosphere of goodwill, commitment to success, through the application of innovative forms of activities, encouraging creativity during the training process in the graduates in Pedagogy.

The model of formation of professional identity of future teachers is presented in Figure 1.



**Figure 01.** Model of formation of professional identity of graduates in Pedagogy.

Each of the components of the model of professional identity formation of the teacher is associated with both the type of activity of the teaching and the activity of other subjects of the educational process (university lecturers, tutors of the academic groups, heads of pedagogical practices from the university and from the school, teachers-mentors, tutors of grant programs for young teachers, teachers-trainers, etc.). Thus, with regard to the predictive-objective component of the model, it is important to note the priority of pedagogical counselling and vocational guidance, the cognitive component is associated with such activities as contact and distant learning and self-education. The system of grant programmes for young teachers, implemented today in many regions of the Russian Federation, pursues a complex goal: to involve student youth in pedagogical profession, to help build up methodical, technological potential of the graduate student or a young teacher, to increase motivation of young teachers for the further professional improvement (Polyakova, Latypova & Sungatullina, 2017). The above-mentioned is reflected in the model as a value-motivational component. One of the most complex components of the model is the emotional component. Many students carry emotions from childhood, from family, environment. "To penetrate" into the inner world of an adult person, to teach him or her more vivid expressiveness in speech, competent use of the power of voice, to induce the teacher to actively use such tools of teaching as mimicry, gestures, which are the most difficult tasks for the University professors and mentors in schools. Lectures and seminars will allow to familiarize only with the theory, to discuss the main problems of pedagogical excellence. Here, it is expedient to consider the use of workshop technology.

Learning process organised in the format of workshops allows to develop emotional component of professional identity formation model. In this case, training is practice-enriching, aimed at the formation, improving specific professional skills of novice teachers, allows to achieve a high level of interaction between the teacher and student, which affects the effectiveness of the educational process (Telegina, Galimova, & Dobrotvorskaya, 2017; Golovanova, & Asafova, 2017; Sibgatullina, & Selivanova, 2016). The activity-constructive component of the model of professional identity formation of the teacher, in our opinion, involves practical training. Modern content of practical training in modern university distinguishes: - compliance of pedagogical practice content with the Federal State Educational Standard of

higher education and basic general education; - distributed nature of the practice, allowing to combine training in the university with training in the general education institutions; - change of theoretical ratio (60%) and practical training of teachers (40%); - conditions of school-university partnership, involving active interaction of all participants of the process of practical training with regard to the definition of relevant goals and objectives of training, effective educational technologies, subjects of graduation qualification works, joint educational and research projects.

The developed professional identity formation model has passed practical approbation within the framework of realization of "Pedagogical Education" Master's program (Institute of Psychology and Education of Kazan Federal University).

## 6.2. Results of experimental activity

68 graduates studying in the program of "Pedagogical Education" (10 profiles of preparation, 47 who have a bachelor degree in Pedagogy; 21 of those who do not have a bachelor degree in Pedagogy) took part in the pedagogical experiment. They were involved in initial research interviews conducted at the beginning of the training (September-October 2016), as well as in the final research interviews (December 2017). Performance evaluation was carried out according to defining parameters. During the interviews, the students clarified their view on the impact of defining parameters on the formation of their professional identity. At the initial stage opinions were more about the nature of the assumptions and were based either on previous learning experiences or on intuitive guessing. The final interviews were more time-consuming, with clearer statements and validated conclusions based on the experience with respect to each of the defining parameters of the survey. The evaluation of the results of the experimental activity is carried out by statistical processing of small samples (Mann-Whitney Criterion). The results of the pedagogical experiment are presented in Tables 1 and 2.

**Table 01.** Defining parameters influencing the formation of professional identity – group 1 (47 graduate students with a bachelor's degree in pedagogy)

Defining parameters	Initial interview	Final interview
Professional orientation in relation to teacher's profession, timely pedagogical counseling	35	36
Involvement in the distant and face-to-face learning process	23	16
Participation in grant programmes that support young teachers and introduce them to their profession	21	24
Involvement in the process of workshop training in order to develop practical skills in relation to pedagogical excellence	39	44
Involvement in the process of practical training in the conditions of school-university partnerships (practical training)	27	30



**Table 02.** Defining parameters influencing the formation of professional identity – group 2 (21 graduate students with a bachelor's degree in non-pedagogical profile)

Defining parameters	Initial interview	Final interview
professional orientation in relation to teacher's profession, timely pedagogical counseling	16	21
involvement in the distant and face-to-face learning process	17	12
participation in grant programmes that support young teachers and introduce them to their profession	18	16
involvement in the process of workshop training in order to develop practical skills in relation to pedagogical excellence	13	19
involvement in the process of practical training in the conditions of school-university partnerships (practical training)	15	21

The results of the study show the following: In the formation of the professional identity of future teachers on the defining parameter of "professional orientation in relation to the teacher's profession, timely reception of pedagogical advice" positive dynamics is observed in two groups of respondents, and the greater leap from the results of the final interview was observed in a group of graduates with a bachelor's degree in Pedagogy. Many of the students admitted that initially did not have high hopes for pedagogical counseling, giving priority to distant and face-to face education in the university. However, the built-up scheme of pedagogical consulting, helping to solve any problem of training in the Master's Degree programmes, which resolved the difficulties connected with implementation of practical activity in educational organizations, has met expectations of all participants of the educational process.

According to the defining parameter of "involvement in the process of distant and face-to-face learning" there was a negative dynamics due to insufficient interaction with the Student Body, theory-oriented format of training, detachment of teachers from the Student Body, lack of a reference to the real needs of the graduates, related to the implementation of pedagogical activities in the general education. Defining parameter of "participation in grants that support young teachers and are connected with their introduction in a profession" appeared more significant for formation of professional identity to graduates with a degree of a Bachelor of pedagogy. According to this parameter, we can see a clear positive dynamics in this group of interviewed students, because they are familiar with grant activity and many of them have been directly involved in this process since the studies in the undergraduate programmes. While in another group, the results of the final interview indicate a loss of interest in this parameter. We explain this by the fact that this group of students is not aware of the grant policy regarding the education system, and is not willing to participate in the grant activity because they do not work as teachers in the general education institutions. The parameter of "involvement in the process of workshop training with the purpose of formation of practical skills in relation to pedagogical excellence" (emotional component of the model of professional identity formation) showed the highest positive dynamics in both groups 2 and 1. Workshops on professional self-development, speaking skills and pedagogical interaction are presented in 3 semesters of Master's programme in Pedagogy, occupy 34% of the educational audit time, are distributed and are associated with production practices in educational organizations. The purpose of workshops is formation of practical skills of pedagogical excellence (kinetic culture of the teacher, behaviour in conflicts, public speech, oratory, etc.), that has appeared extremely demanded among the students of both groups. The

management body of the pedagogical Master's programme in Pedagogy, coaches in pedagogical skills received a large number of positive feedback from students on the course of workshops, which expressed the opinion on the feasibility of introducing such a form from the first semester of study in the Master's programmes, which is reflected in the updated curricula for the 2018/19 academic years. The high evaluation of the workshops was obtained during the final interviews of the pedagogical experiment. The defining parameter of "involvement in practical training in the context of school-university partnership (practical training)" is also characterized by positive dynamics in both groups. The new nature of pedagogical practices aimed mainly at the professional development of the young teacher, the growth of his or her methodical and research potential, implemented in the effective conditions of school-university partnership, allows to set new goals for the student body, get valuable experience of practical work in an educational organization under the guidance of professional teachers. Thus, the main changes are observed in the following parameters: Negative dynamics (in both groups, with different frequency) – on the defining parameter of «involvement in the process of distant and face-to-face learning», that actualizes the question of revision of content and technologies according to these types of training; expressed positive dynamics (in both groups, with different frequency) – on defining parameters of "involvement in the process of training with the purpose of formation of practical skills in relation to pedagogical excellence", "involvement in the process of practical training in the conditions of school-university partnership (distributed practical training), which allows to make a conclusion about the priority of development in relation to the emotional and activity-constructive components of the model of forming professional identity of the graduates.

## 7. Conclusion

The developed and tested model of formation of professional identity of graduates in Pedagogy has shown special efficiency in relation to predictive-objective, emotional, activity-constructive components. Such formats of training as practical training, workshops, pedagogical consulting, implying active interaction of all participants of educational process and, certainly, requiring attraction of more additional resources (temporary, technological, financial, managerial, etc.), justify the expectations in relation to the formation of practical skills and competencies, contributing to the growth of professional excellence of the teacher.

## Acknowledgments

The work is performed according to the Russian Government Program of Competitive Growth of Kazan Federal University.

The authors declare that they have no conflict of interest.

## References

- Akkerman, S. F., & Meijer, P. C. (2011). A dialogical approach to conceptualizing teacher identity. *Teaching and teacher education*, 27(2), 308-319.
- Ananiev, B. G. (2008). *Lichnost', sub"ekt deyatel'nosti, individual'nost'* [Personality, subject of activity, individuality]. Moscow: Direkt-Media.

- Beijaard, D., Meijer, P. C., & Verloop, N. (2004). Reconsidering research on teachers' professional identity. *Teaching and teacher education*, 20(2), 107-128.
- Bespalko, V. P. (2010). Mozhno li kupit' innovacii? [Can I buy innovation?]. *Narodnoe obrazovanie*, 7, 54-64.
- Bonilla, C. M. (2017). Relational professionalism in a bilingual teacher association: Promoting occupational identities and pedagogic agency. *Bilingual Research Journal*, 40(3), 304-317.
- Borrasca, B. J. (2017). Constructing the professional identity of primary school teachers during their initial teacher training. The case of the University of Barcelona. *Profesorado-Revista De Curriculum Y Formacion De Profesorado*, 21(1), 103-122.
- Davydov, V. V. (2003). Novyj podhod k ponimaniyu struktury i sodержaniya deyatel'nosti [A new approach to understanding the structure and content of activities]. *Voprosy psihologii*, 2, 42-49.
- Derkach, A. A., Zazykin, V. G., & Markova, A. K. (2000). *Psihologiya razvitiya professionala* [Psychology of professional development]. Moscow: RAGS.
- Golovanova, I. I., & Asafova, E. V. (2017). Training of a modern teacher in the settings of interactive technologies implementation. *Modern Journal of Language Teaching Methods*, 7(3), 570-575.
- Kalimullin, A. M., & Masalimova, A. R. (2016). Editorial: Actual Issues of National Education: Theory and Practice. *Mathematics Education*, 11(1), 1-2.
- Kalimullin, A. M., Vlasova, V. K. & Sakhieva, R. G. (2015). Teachers' training in the magistrate: Structural content and organizational modernization in the context of a federal university. *International Journal of Environmental and Science Education*, 11(3), 207-215.
- Klimov, E. A. (2007). *Psihologiya professional'nogo samoopredeleniya* [Psychology of professional self-determination]. Moscow: Akademiya.
- Kobysheva, L. I., & Krotova, A. P. (2012). Samoopredelenie kak uslovie stanovleniya professionalizma budushchih pedagogov [Self-determination as a condition of formation of professionalism of future teachers. Society: sociology, psychology, pedagogics]. *Obshchestvo: sociologiya, psihologiya, pedagogika*, 2.
- Leontiev, A. N. (2005). *Deyatel'nost. Soznanie. Lichnost* [Activity. Consciousness. Personality]. Moscow: Smysl.
- Luehmann, A. L. (2007). Identity development as a lens to science teacher preparation. *Science Education*, 91(5), 822-839.
- Masalimova, A. R., & Galishnikova, E. M. (2016). Idealism versus Realism in Student and Practitioner Attitude toward Teaching. *International Journal of Environmental and Science Education*, 11(7), 1671-1679.
- Pillen, M., Beijaard, D., & den Brok, P. (2013). Professional identity tensions of beginning teachers. *Teachers and Teaching*, 19(6), 660-678.
- Polyakova, O. V., Latypova, L. A., & Sungatullina, D. D. (2017). The system of grant support to novice teachers as an impetus for lifelong learning: the case of the Republic of Tatarstan. *Education and Self-development*, 12(3), 54-61.
- Rubinstein, S. L. (2016). *Bytie i soznanie* [Existence and consciousness]. St. Petersburg: Izdatelskij dom Piter.
- Shadrikov, V. D. (2006). Lichnostnye kachestva pedagoga kak sostavlyayushchie professional'noj kompetentnosti [Personal qualities of the teacher as professional competence]. *Vestnik Yaroslavskogo gosudarstvennogo universiteta im. P. G. Demidova. Seriya Gumanitarnye nauki*, 1, 15-20.
- Sibgatullina, T. V., & Selivanova, O. G. (2016). Organizing educational activity of a pupil on the basis of learning technologies. *International Journal of Environmental and Science Education*, 11(13), 6056-6067.
- Telegina, N. V., Galimova, E. G., & Dobrotvorskaya, S. G. (2017). The use of interactive learning technologies in math classes. *Modern journal of language teaching methods*, 7(4), 106-113.
- Turchinov, A. I. (1998). *Professionalizaciya i kadrovaya politika: problemy razvitiya teorii i praktiki* [Professionalization and personnel policy: problems of theory and practice development]. Moscow: Flinta.

- Valeeva, R., & Gafurov, I. (2017). Initial teacher education in Russia: connecting practice, theory and research. *European Journal of Teacher Education*, 40(3), 342-360.
- Zavalishina, D. N. (2003). Sub"ektno-dinamicheskij aspekt professional'noj deyatel'nosti [Subject-dynamic aspect of professional activity]. *Psihologicheskij zhurnal*, 24(6), 1-15.
- Zeer, E. F. (2008). *Psihologiya sovremennogo obrazovaniya* [The psychology of modern education]. Moscow: Akademiya.
- Zengele, T. (2017). The new surfacing image of the teaching profession. *Journal of Asian and African Studies*, 52(5), 691-704.