

## Building of Projecting Competence Among Future Teachers in the Conditions of Introduction of Inclusive Education

Evgeniya V. Ketrish<sup>a</sup>, Evgenij M. Dorozhkin<sup>a</sup>, Oleg M. Permyakov<sup>a</sup>,  
Natalia V. Tretyakova<sup>a</sup>, Tatiana V. Andryukhina<sup>a</sup> and Valentina V.  
Mantulenko<sup>b</sup>

<sup>a</sup>Russian State Vocational Pedagogical University, Ekaterinburg, RUSSIA; <sup>b</sup>Samara State University of Economics, Samara, RUSSIA

### ABSTRACT

The relevance of the researched problem is caused by the need of consideration of teachers' readiness for work in the conditions of inclusive education, and change of process of their professional training (on the example of specialists in the sphere of physical education). The purpose of publication consists in the development of pedagogical model of the projecting competence building which will provide effective forecasting, modeling and planning of educational process. The leading approach to the research of a problem is the system-based approach which allows us to analyze the process of building of projecting competence as pedagogical system, and on the basis of it to determine its structural and functional characteristics. The results of the research on identification of the relation of future physical education (PE) teachers to a possibility of work in the conditions of inclusive education are provided; the pedagogical model of projecting competence building among teachers including target, substantial, organizational and estimative-productive components is offered. Materials of the publication can be useful to the scientists while studying questions of implementation of an inclusive education in the Russian education system, to the specialists who are engaged in the organization of training of future teachers, to the teachers working in the educational organizations of various types, to students of pedagogical higher education institutions.

### KEYWORDS

Children with special needs or disabilities, inclusive education, projecting competence of a teacher, readiness of the teacher

### ARTICLE HISTORY

Received 20 May 2016  
Revised 28 July 2016  
Accepted 09 August 2016

### Introduction

In the international program of UNESCO "Education for All" inclusive education is defined as the following: "equal opportunities to all students to get quality education and to develop a potential, regardless of a gender, social and economic status, ethnic origin, geographic location, need for special education, age, religion, etc." (Pastorova, 2013).

**CORRESPONDENCE** Evgeniya V. Ketrish ✉ [evgeniya.ketrish@rambler.ru](mailto:evgeniya.ketrish@rambler.ru)

In 2012 the Russian Federation ratified the Convention of the UN "On the Rights of Persons with Disabilities", assuming an obligation of implementation of inclusive training of persons with special needs at all education levels.

The Federal law "On Education in the Russian Federation" legislatively established the principle of availability of education to persons with special educational needs. "Inclusive education is an ensuring of equal access to education for all students taking into account a variety of special educational needs and specific features". The concept "a student with disabilities" is given in the Federal law "On Education in the Russian Federation" (2012). The student with disabilities is a person having some deformities of physical and (or) psychological development confirmed by psycho-medico-pedagogical commission, and suppressing the education without creation of special conditions.

Educational integration of children with special needs is a world process wherein all advanced countries are involved. A new approach to the organization of education of children with disabilities is brought to life by a set of the reasons which can be designated as a social order of the society and state which reached a certain level of economic, legal and cultural development. Integration is the natural stage of development of the system of special education in any country of the world including Russia which is connected with reconsideration by the society and state of the attitude towards disabled people, with recognition of their rights to achieving of equal opportunities with others in different areas of life, including education (Malofeyev, 2007; Akhmetzyanova & Saitgaleeva, 2016).

Different importance is given to the child's birth with violations in physical and intellectual development in the existing communities in the world. Even in one society this event can have a set of the values caused by subcultural representations, stereotypes, values which vary both historically, and geographically.

J. Newman (1991) believes that the attitude towards people with violations and social policy in relation to them is created as a result of historical processes. The author notes that these processes are directed by philosophical concepts of utilitarianism, humanism and human rights. These concepts were a part of the western culture since ancient times, and nowadays it continues to create its politics and public morals.

It should be noted that today in Russia a considerable part of parents of normally developing children doesn't accept the idea about a possibility of inclusion of children with disabilities in regular public schools and kindergartens, and oppose an inclusive education. So, for example, the research concerning the relation of school students with normal development to people with special needs, conducted by A.Yu. Pastorova (2013), showed that indicators of empathy and acceptance of people with special needs among pupils decrease with age, and "it is an evident illustration of the fact that separation of people into "disabled people" and "not disabled people" is secretly acquired by school students in spite of the fact that teachers conduct "kindness lessons", tell about tolerance, and on television there are remarkably shot social videos". Therefore, it is possible to suggest that children adopt segregate attitudes and stereotypes in relation to physically disabled people over adults, and such attitudes throughout school age are successfully fixed in their consciousness.

In our opinion, such attitude towards children with special needs is connected mainly with the fact that throughout long time these children were isolated from society, being closed in special society, at special social institutes and, in fact, at state ones.

Basing on the above-mentioned, it is possible to draw a conclusion that there is no right option to which it is necessary to adhere including the parents of children with disabilities. Even inclusive education is not always the best decision and not for all "special" children. Children with the diagnosis "early children's autism" and children with frustration of an autistic range can be an example of that. The main symptoms of this syndrome are violation of social interaction and the broken mutual communication and such children can seldom fit into conditions not only of comprehensive schools, but even special educational institutions. Therefore, it is necessary for them to look for some other options of interaction with society.

General education is aimed at healthy children including ordinary teachers and comprehensive schools. Special education includes work with special children, both the school and teachers adapt to them. The integrated education arranges the special child to common education by means of rehabilitation and adaptation. Finally, inclusive education, perceiving the child that which he/she is, adjusts an education system to such children. This type of education assumes several options of realization: classical option of visit of educational institution by the pupil with special needs, home or distance learning (Culms, 2010).

Returning to the problem of inclusive education in Russia, it is necessary to notice that efficiency of its implementation depends on: preparation of the qualified pedagogical personnel realizing the social importance of the profession; having high motivation to accomplishment of professional activity; knowing age and psychological features of the pupils with various pathologies of development; and able to realize constructive pedagogical interaction between all members of an educational environment (Hitryuk, 2013; Dorozhkin, Zaitseva & Tatarskikh, 2016).

We have carried out the multi-level analysis of origins of various barriers on the way of development of inclusive education (along with Shumilovskaya, 2011), we allocate the following levels:

1. Macrolevel. The main barriers of this level to the development of educational inclusion are: irregularity of the Federal legislation concerning children with disabilities; discrepancy to its international standards, deficiency of the Federal law on vocational education wherein the legal basis of institute of inclusive education and the principles of the mechanism of creation of economic conditions for implementation of inclusive approaches in education of persons with special educational needs would be accurately determined.

2. Mesolevel. At this level the main barriers on the way of development of educational inclusion are: availability of cultural stereotypes concerning physically disabled people; the unavailability of the developed education system to meet individual needs of every child; lack of special standards of education and variable programs for training of persons with special educational needs; lack of legislated opportunity to provide training of "special" pupils by the individual plan which allows to use the standard educational program adapted for special educational needs of this or that pupil and to apply competence-based

approach in training; lack of programs for support of the persons with disabilities studying in a general educational institution.

3. Microlevel. This level of barriers on the way of development of inclusive approaches in education is connected with activities of the specific organizations and specialists, and certain people. For inclusive education this level serves as the level of psychological acceptance by teachers of educational institutions of the possibility of coeducation of persons with disabilities, their professional goals, stereotypes and actions in relation to a pupil with special needs.

It is supposed that children with special needs today are not obliged to study in special educational organizations: at regular comprehensive school they can get not only a better education, but also adapt successfully to life, realize the need for emotional and physical development. Unfortunately, the experience has shown that the question of the organization of development and training of "special" children at public school is still open. It is connected not only with specifics of techniques, but also with unpreparedness of the personnel providing the inclusive educational environment, giving correctional and psychological support to pupils with special educational needs (Culms, 2010).

Inclusion in education assumes implementation of a postulate "Not children are created for school but the school is created for children" (Hitryuk, 2013). At the same time, a school and an education system in general, as a public institute, should take into account various needs and personality characteristics of different children but not to impose requirements of compliance to the established formal regulations. All mentioned above is possible only in case of accomplishment of a very important condition – building and development of readiness of the "mass" teacher for acceptance of the ideas of inclusive education and his/her capability to work in these conditions.

The readiness of teachers can be created only under certain conditions and a certain content of educational process in institutions of higher education, and also in institutions of additional education of adults.

Readiness as social attitude is defined by us as the predisposition preceding activity performance. It traditionally includes cognitive (knowledge possession on subject readiness content), emotional (the relation to the content of readiness to the subject of its application; regulation of process and the result of demonstration of readiness), and conative (display in different situations) components (Hitryuk, 2013). The demonstration of readiness is defined by character, conditions, features of specific activity, and today, along with traditional components, the structure of readiness of the teacher for work in the conditions of inclusive education has to include reflexive and communicative components. It is also important to investigate readiness formation to work in the conditions of inclusive education in the course of vocational training, professional development of a teacher.

The most important step of preparation of an education system to the realization of the process of inclusive education is the phase of psychological and valuable changes of its experts and level of their professional competences. The researchers note that at the first phases of development of inclusive education there is a problem of unavailability of teachers of mass schools (professional, psychological and methodical) to work with children with special educational needs; also the lack of professional competences of teachers to work in the inclusive environment, the existence of psychological barriers and professional

stereotypes of teachers are found (Alekhina, Alekseev & Agafonov, 2011). The researchers distinguish the main psychological "barriers": fear of the unknown, fear of harm of an inclusive education for other participants of the process, negative social settings and prejudices, professional uncertainty of a teacher, unwillingness to change, and psychological unavailability to work with "special" children. It leads to serious problems not only for psychological community of education, but also for methodological services, and, above all – for heads of the educational institutions realizing inclusive principles. Teachers of the general education are in great need of a specialized complex help from experts in the field of correctional pedagogics, special and pedagogical psychology which will provide understanding and realization of approaches to individualization of training of children with special educational needs, first of all – pupils with disabilities. But the most important, the teachers of mass school have to teach themselves to work with children with different opportunities in training and to consider this variety in the pedagogical approach to everyone. A number of authors consider the readiness of teachers for work in the conditions of inclusive education through two main indicators: professional readiness and psychological readiness.

At the same time, the structure of professional readiness involves: information readiness; possession of pedagogical technologies; knowledge of fundamentals of psychology and correctional pedagogics; knowledge of individual differences of children; readiness of teachers to model a lesson and to use variability of activities in the course of training; knowledge of specific characteristics of children with various development disorders; readiness for professional interaction and training. In the structure of psychological readiness: emotional acceptance of children with various types development disorders; readiness to include children with various types of disturbance in activity at a lesson; satisfaction with own pedagogical activity (Alekhina, Alekseev & Agafonov, 2011).

Thus, inclusive education imposes special requirements to professional and personal training of teachers who should understand clearly the essence of inclusive approach, know age and psychological features of pupils with various developmental disabilities, and realize constructive pedagogical interaction between all members of an educational environment. In short, the teacher is to be ready to implementation of a professional activity in the conditions of innovative educational process (Yemelyanova & Alexandrov, 2013; Kostyunina & Valeeva, 2016).

In turn, training of teachers in the sphere of physical culture to work in the conditions of inclusive education is complicated by the problem of environmental "barriers" (the choice of the training material corresponding to interests and opportunities of all pupils of a class; the increased psychological tension of the teacher; difficulties of communication of school students with special educational needs both with healthy peers, and with the teacher, etc.). Besides, the expert in physical culture and sport works in the conditions of the increased psychological tension as implementation of the safety requirements while performing physical exercises of all participants of educational process substantially becomes more complicated; and the teacher needs to pay more attention to the children with some deviations (Yemelyanova & Alexandrov, 2013).

S.P. Evseev (2009) notes a rehabilitation and social adaptation by means of physical culture as the most effective way in the system of measures of social protection of disabled people. The physical culture for people with disabilities is aimed at: development of the main physical qualities; increase in functionality of an organism; formation, preserving and use of the body and motor qualities (which remained available) of a disabled child; forming of a complex of special knowledge. In addition to these positive influences, inclusive physical education classes have some more advantages. "Special" children receive: an available example for motor imitation; the capability to overcoming the physical and psychological barriers that obstruct a productive life; the need of the individual contribution in life of society is realized; the desire to improve the physical standards arises. The principles of inclusive education are constructed on support, mutual assistance, equality and friendship. The child with special needs should realize the importance of communication with healthy ones as equals, understand what qualities are necessary for communication with other children, to remove a setting of a dependency and to overcome desire of self-isolation, and, of course, to be convinced of own physical potential. Undoubtedly, positive experience of such lessons is taken out also by normally developing children. For children with disabilities, these lessons are new skills of communication and development of the emotional sphere, overcoming egoistical settings or a complex of a superiority. This perception of "other" child as equal, manifestation of sense of responsibility for other person, development of ability to commensurate the desires with opportunities of another, awareness of importance of the adequate help in a situation when it is really necessary. Participating jointly in an educational process, healthy children and children with limited opportunities of health, learn the tolerant relation towards each other.

According to various statistical researches, about 18-20% of "special children" study in educational institutions wherein adequate conditions to psychophysical abilities of this group of children have to be created. Most commonly, however, children are in low-mobility conditions as the compelled behavior form in educational institutions of the general special type. Usually children with disabilities are free from PE lessons or they are assigned to a special group which is not actually functioning in most schools. In this regard, in our opinion, nowadays inclusive PE classes are acquiring special relevance and importance (Ovcharenko, 1993)

In our opinion, while organizing the training of children in the conditions of introduction of inclusive education, the special part is assigned to projecting competence, which we consider as a part of professional competence of the teacher intending to apply a capability in practical activities of knowledge, ability, skills and professionally significant qualities of the personality providing effective forecasting, modeling and planning of an educational process.

## **Materials, methods and methodological framework**

### ***Research methodology***

The leading methodological basis for development of the model of projecting competence of future teachers lies in the system-based approach by Yu.K. Babansky (1989), V.P. Bepalko (1997), N.V. Kuzmina & N.V. Kukharev (1996), which provides the possibility to analyze the process of formation of

projecting competence as a pedagogical system based on its structural and functional characteristics; and also competence-activity approach by I.A. Zimnyaya (2006), A.K. Markova (1996), G.Raven (2002), which makes it possible to direct on building of projecting competence through the development of student abilities to the independent problem solving draw on social experience that includes own experience of students.

### ***Research methods***

In the course of the research the following methods are used: 1. theoretical: studying of scientific and educational-methodical literature, regulating documents in education, the conceptual and terminological analysis of basic definitions of the research, theoretical modeling; 2. empirical methods: studying and generalization of pedagogical experience, questioning, analysis of products of activities, experimental and research work.

### ***Experimental and research base of the study***

Experimental and research base of the study is presented by higher educational institutions of the cities of Ekaterinburg (Russian State Vocational Pedagogical University, Ural Federal University named after the First President of Russia B. N. Yeltsin) and Chelyabinsk (Ural State University of Physical Culture).

### **Results**

Within the considered problem we have conducted a research on identification of the attitude of future teachers of PE to a possibility of work in the conditions of inclusive education.

Students of 1-5 courses of physical culture faculties (147 people) have participated in the research. As a result of the conducted survey, the following results have been received.

The question: "You are familiar with the term "Inclusive Education""? The students who answered positively this question — 37% of total number of respondents, and 63% —answered that they aren't familiar with this term.

The question: "What do you think of coeducation of healthy children and children with disabilities"? 34% of respondents answered positively, and 66% of answers werenegative.

The question "Would you like to work as a Teacher or Trainer in the field of Adaptive Physical Culture"? 43% of students told that they would like to work as a teacher in the field of physical culture and sport of disabled people, and 57% of respondents gave the answer "no".

The question "Do students of various specialties of pedagogical higher education institution have to study features of work with the disabled children? What is your opinion"? 83% answered that students of various specialties of pedagogical higher education institution have to study features of work with the disabled children, and 17% answered negatively

The question of factors which can complicate work of the expert in physical culture at the organization of joint occupations of healthy children and children with special needs the following answers have been received.

To a greater degree - 38% of respondents are upset by the difficulties in the organization of interaction of healthy children and children with disabilities; 22% of students are frightened by the lack of special skills for communication with disabled children (for example, command of sign language translation); 21% of respondents are frightened by shortage or lack of the special equipment and devices for such occupations.

To a lesser extent - 19% of respondents was caused by some difficulties of insufficient knowledge of methods of work with disabled children.

The question "Where you plan to work after higher education institution"? 71% answered - work in the specialty, 15% - not in the specialty, 14% - don't know.

In the course of the analysis of the received answers, it is possible to draw the following conclusions:

1. Inclusive education is one of the main components of process of social integration of physically disabled people. Results of the poll demonstrate that the vast majority of students specializing at "Physical culture" aren't familiar with the term "Inclusive Education", and rather big percent of the interviewed students are against of coeducation of healthy children and children special needs.

2. At the same time, most of students noted that all students of pedagogical higher education institution have to study characteristics of children with development disorders, as it is necessary to work in the conditions of inclusive education, they would prefer to be more prepared.

3. Analyzing the factors that can complicate the work of specialists in physical culture and sport in the conditions of inclusive education, we understand that future specialists are afraid for the effective organization of interaction between normally developing children and children with disabilities.

The results of the conducted research have shown that future experts in physical culture have insufficient knowledge of specifics of work with the disabled children. However, they adequately estimate possible difficulties during the work in the conditions of inclusive education and the level of the readiness for its overcoming (Ketrish & Andryukhina, 2015).

Following the results of the research, we came to understanding of the need of training of future PE teachers in specifics of work in the conditions of inclusive education. For this purpose, we developed a pedagogical model directed to building of projecting competence of future teachers in the conditions of introduction of inclusive education.

The process of projecting competence building of future PE teachers acts as a subject of our modeling. We distinguish target, substantial, organizational-estimative and productive components as model elements.

*The target component of the model* predetermined a content, organization and expected result. It is provided in the unity of a purpose and system of tasks. The purpose of implementation of the provided model was building of the projecting competence of future teachers which is necessary for effective professional activity in the conditions of introduction of inclusive education. According to the stated purpose, the tasks found the solution at phases of design competence building are formulated.

The main attention is paid to the solution of the following tasks at a theoretical-fact-finding phase: disclosure of a role of theoretical knowledge and abilities necessary for student teaching, including knowledge of characteristics of children with special needs; activization of professional cognitive activity; attraction to collective methods of the solution of the situational tasks connected with the organization of educational process in the conditions of introduction of inclusive education; formation of interest in professional literature; development of skills of a self-reflection.

The following tasks are emphasized at a practical-oriented phase: development of structural roles of pedagogical activities; forming of abilities of carrying out of lesson parts in the conditions of introduction of inclusive education; development of abilities of the solution of organizational and situational tasks in the complicated conditions of professional activity; extension of professional knowledge, including the characteristics of children with special needs; achievement of pedagogical experience in the solution of professional tasks; increasing of experience of a self-reflection.

The creating phase is directed to the solution of the following tasks: forming of a skill for the solution of organizational and situational tasks in the conditions of introduction of inclusive education; forming of professional and significant personal qualities, including tolerance, empathy and goodwill; forming of creative, research approach to pedagogical activities, including organization of educational process in the conditions of an inclusive education; forming of motivation to professional and pedagogical activities.

*A substantial substructure* of the model assumes semantic (subject) content of the main directions of vocational training of future teachers.

While identifying a substantial substructure of model we were guided by the Federal State Educational Standard in the field of vocational training of future teachers; in this connection, we have allocated three modules in a substantial substructure: motivational-valuable, cognitive and activity-practical.

The motivational and valuable module includes: steady motivation to professional and pedagogical activities; mastering regulations and values of professional culture of the teacher.

The above-stated block is implemented by the use of such methods and acceptances of education as belief, dialogue, creation of situations of the choice and success, appeal to a personal experience, example; the module is connected with adaptation, organizing and practical-oriented functions.

It is possible to mark out the following knowledge in the content of the cognitive module of the model substantial substructure: knowledge of theoretical bases of professional and pedagogical activity, knowledge of vital and professional interrelations, knowledge of characteristics of persons with disabilities, and features of the organization of their training.

On the basis of the purpose and the cognitive module content, we can define its functions which are understood as external manifestation of properties of an object. In our opinion, this module performs analytical and informative functions.

The activity-practical module is directed to acquisition of practical experience of interaction in different types of professional and pedagogical activity and is implemented by the means of methods promoting the problems

solution of a professional orientation. The main functions of this module are the following: informative, organizational, practical-oriented, control and estimated, analytical. These functions are directed to acquisition of experience of interaction in different types of professional and pedagogical activity. Simultaneous realization of the above-named modules is supposed in the course of vocational training of future teachers; in our opinion, the modules are equivalent to each other.

The organizational substructure of the model includes methods, forms and tutorials.

As the training methods directed to forming of the projecting competence of future teachers necessary for professional activity in the conditions of introduction of inclusive education it is possible to allocate the following: solution of situational tasks of a professional orientation, role and business games, methods of interactive training.

The following forms of education are suggested: a lecture; seminar occupation; consultation (group, individual); independent work; student teaching, including, in the educational organizations realizing the principles of inclusive education; participation in the seminars and roundtable discussions devoted to a research of problems of the organization of training of persons with special needs (Ketrish, Andryukhina & Mironova, 2012).

The means of education are understand as a set of the material, technical, information and organizational resources used for providing different training methods. They are the following: content, methods and techniques of training; equipment of educational offices and their information-subject environment, educational material resources of educational institutions of various types, and also technical means of training. In our case, we will understand the data carriers created especially for the educational purposes as tutorials: textbooks, education guidances, working programs, collections of the situational tasks and exercises directed to acquaintance to specifics of professional activity in the conditions of an inclusive education; methodical recommendations on the organization of training of children with special needs; scientific and professional journals (including the foreign ones), the concerning the specifics of training of children special needs; technical means of training, including the means which are used for persons with disabilities.

The technology of implementation of this model is an overall process, wherein a purposeful interaction of the pedagogical conditions is performed for the purpose of success of projecting competence building of future teachers.

Pedagogical conditions are the external circumstances that involve significant effect on the course of a pedagogical process. The following pedagogical conditions are highlighted by us:

1. Forming of motivation to professional activity among future teachers, which includes the essential conditions of coeducation organization of persons with disabilities and normally developing peers.
2. Activization of capabilities of students to implementation of a reflection of professional actions.
3. Students' involvement in creative projecting activity, due to the need of an organization of training in the becoming complicated conditions of professional activity caused by introduction of inclusive education.

Evaluative-productive substructure of the model.

In our research the traditional model is based on the evaluation level of projecting competence formation (Kokorina, 2012), which is applied in modern pedagogics while evaluating the knowledge and skills of trainees (Table 1).

**Table 1.** Evaluation level of projecting competence formation

Level formation	Level characteristics	Points
Cognitive	Knowledge, recognition	1
Reproductive	Reproduction, imitation, repetition, description	2
Transfer	Conscious application while solving particular, constricted tasks, a partial interiorization	3
Creative	Conscious application in any situations, a full interiorization	4

Positive dynamics of level of projecting competence formation of future teachers acts as the expected result which specifies efficiency of implementation of the model.

## Discussions

The analysis of psychological and pedagogical literature, studying of regulating and methodical documents on education allow to state the lack of specific researches devoted to the problem of training of specialists in the sphere of physical culture to work in the conditions of introduction of inclusive education.

Our investigation is based on the researches of essence and structure of professional competences described in works of the Russian and foreign researchers: V.I. Baydenko & B. Oskarsson (2002), A.A. Derkach (2008), I.A. Zimnjaja (2006), A.K. Markova (1996), L.M. Nikitina (2003), G. Raven (2002). Questions of quality of professional pedagogical education and conditions of its development were researched by V.A. Fedorov (1999), V.A. Fedorov & N.N. Davydova (2014), V.A. Fedorov & N.V. Tretyakova (2015), N.V. Tretyakova et al. (2016). Problems of forming of professional competences of specialists of various fields are considered in A.A. Derkach's works (2008), E.F. Zeer (2004), I.A. Zimnjaja (2006). However, the features of forming of professional competences of PE teachers have not been found yet in the researches of the Russian and foreign academics. The researches concerning the building projecting abilities of pupils and students by G.A. Lebedev's (2000), O.V. Tarasyuk (1999) and also the theory and practice of forming of projecting competence by Yu.G. Komendrovskaya (2004), G.E. Muravyeva (2005), E.V. Yakovlev & N.O. Yakovleva (2006) allowed to determine the structure of projecting competence of future teachers. System-based approach to a research of the pedagogical phenomena and processes studied by Yu.K. Babansky (1989), V.P. Bepalko (1997), N.V. Kuzmina & N.V. Kukharev (1996) allowed to analyse the process of forming of projecting competence in a complex and in detail, and also to determine the structural components of the developed model.

Found upon the results of researches in the field of special psychology and correctional pedagogics in the context of studying of inclusive approach to education by N.N. Malofeyev (2007), U.V. Ulyenkova (2002), L.M. Shipitsyna (2004), we could mark out characteristics of children with special needs and

specifics of the organization of their training together with normally developing children.

In general, the analysis of psychological-pedagogical literature and practical researches in the field of inclusive education has allowed to draw a conclusion that sufficient amount of researches are devoted to the questions of readiness of a future teacher (Zeer, 2004; Kovalyov, 1965; Dyachenko & Kandybovich, 1978; Kuzmina & Kukharev, 1996; Markova, 1996; Slastenin, 1997), including the work in the conditions of inclusive education (Kobrina, 2009; Hafizullina, 2010; Chigrina, 2010; Shumilovskaya, 2011).

In the previous researches, however, inadequate attention is given to the specifics of professional activity training of PE teachers in the conditions of introduction of inclusive education. The process of building of projecting competence of future teachers as an essential part of professional competence of the teacher in the previous researches wasn't considered; this process assumes a potential to apply knowledge, ability, skills and professionally significant qualities of the personality in practical activities, providing effective forecasting, modeling and planning of an educational process in the conditions of introduction of inclusive education.

### **Conclusion**

Thus, inclusive education imposes special requirements to vocational and personal training of teachers who have to understand clearly essence of inclusive approach, know age and psychological features of pupils with various development disorders, and realize a constructive pedagogical interaction between all members of an educational environment.

The pedagogical model developed by us will promote projecting competence building which is an important component of professional competence of a teacher. In the conditions of the need of an organization of coeducation of children with disabilities and normally developing children, projecting competence purchases the major role, as it provides the most effective forecasting, modeling and planning of an educational process. The effective and balanced creation of these processes will give an option to reduce a risk of emergence of the adverse situations that arise in the case of change of operating conditions of an educational environment. In our case, these changes are connected with active introduction of inclusive education in Russia.

### **Recommendations**

The results of the presented research can be useful to the scientists studying questions of introduction of inclusive education in the Russian educational system; to the experts who are engaged in the organization of training in higher institutions and specialized secondary educational institutions; to the teachers working in educational organizations of various types; to students of pedagogical higher education institutions and other interested persons.

The proposed model of projecting competence building is directed to the organization of vocational training of future PE teachers to work in the conditions of introduction of inclusive education. The model is focused on the development of scientific and methodical ensuring process of student training in

higher educational establishments and specialized secondary educational institutions.

### Acknowledgement

The research is performed with financial support of the Ministry of Education and Science of the Russian Federation within the project No. 2014/393.

### Disclosure statement

No potential conflict of interest was reported by the authors.

### Notes on contributors

**Evgeniya V. Ketrish** is PhD, Associate Professor of Russian State Vocational Pedagogical University, Ekaterinburg, Russia.

**Evgenij M. Dorozhkin** is PhD, Professor, Rector of Russian State Vocational Pedagogical University, Ekaterinburg, Russia.

**Oleg M. Permyakov** is student of Russian State Vocational Pedagogical University, Ekaterinburg, Russia.

**Natalia V. Tretyakova** is PhD, Associate Professor of Russian State Vocational Pedagogical University, Ekaterinburg, Russia.

**Tatiana V. Andryukhina** is PhD, Associate Professor of Russian State Vocational Pedagogical University, Ekaterinburg, Russia.

**Valentina V. Mantulenko** is Associate professor of Samara State University of Economics, Samara, Russia.

### References

- Akhmetzyanova, A.I. & Saitgaleeva, G.G. (2016). Education for Parents with Disabled Children: How to Participate in Inclusive Education Support. *IEJME-Mathematics Education*, 11(4), 859-865.
- Alekhina, S. V., Alekseev, M. N. & Agafonov, E. L. (2011). Readiness of Teachers as a Major Factor of Success of Inclusive Process in Education. *Psychological Science and Education*, 1, 83–92.
- Babansky, Yu. K. (1989). *Chosen pedagogical works*. Moscow: Pedagogics, 480 p.
- Baydenko, V. I. & Oskarsson, B. (2002). Basic Skills (Core Competencies) as the Integrating Factor of Educational Process. *Professional Education and Forming of the Identity of the Specialist*, 5, 22-46.
- Bespalko, V. P. (1997). *Bases of the theory of pedagogical systems*. Voronezh: Voronezh State University, 304 p.
- Chigrina, A. Ya. (2010). Social Policy Concerning Education of Handicapped Children. *Bulletin of Vyatka State Humanities University*, 4, 136-141.
- Culms, V. (2010). Application by Specialists in Physical Culture of Humanitarian Technologies in the Conditions of Inclusive Education. *Adaptive Physical Culture*, 4, 15-17.
- Derkach, A. A. (2008). *Acmeological assessment of professional competence of government employees*. Moscow: Russian Academy of Public Service, 166 p.
- Dorozhkin, E. M., Zaitseva, E. V. & Tatarskikh, B. Y. (2016). Impact of Student Government Bodies on Students' Professional Development. *IEJME-Mathematics Education*, 11(7), 2666-2677.
- Dyachenko, M. I. & Kandybovich, L. A. (1978). *Psychological problems of readiness for activities*. Minsk: Belarusian State University, 182 p.
- Evseev, S. P. (2009). *Adaptive physical culture, its philosophy, content and tasks. Adaptive physical culture and functional condition of disabled people*. St. Petersburg: Piter, 208 p.
- Federal law "About Education in the Russian Federation" (2012). N 273-FZ, d.d. 29 December, 2012 with changes of 2015-2016. Direct access: <http://zakon-ob-obrazovanii.ru/>

- Fedorov, V. A. & Davydova, N. N. (2014). Control of the Research and Education Network Development in Modern Socio-Pedagogical Conditions. *Scientific Bulletin of National Mining University*, 2(140), 126–133.
- Fedorov, V. A. & Tretyakova, N. V. (2015). Quality Management of educational Institutions in Protecting Students' Health: Conceptual and Structural-Functional Innovations. *Scientific Bulletin of National Mining University*, 6(150), 134–143.
- Fedorov, V. A. (1999). Quality of Vocational Pedagogical Education. *Education and Science*, 2(2), 189–198.
- Hafizullina, I. N. (2010). *Forming of inclusive competence of future teachers in the course of professional training*: PhD Thesis. Astrakhan: Astrakhan State University, 213 p.
- Hitryuk, B. B. (2013). Readiness of Teachers for Work in the Conditions of Inclusive Education. *Bulletin of Chuvash State Pedagogical University Named after I. Ya. Yakovlev*, 3, 189–193.
- Ketrish, E. V. & Andryukhina, T. V. (2015). A Research of the Relation of Future Experts in the Sphere of Physical Culture to Professional Activity in the Conditions of Inclusive Education. *Siberian Pedagogical Journal*, 3, 131-134.
- Ketrish, E. V., Andryukhina, T. V. & Mironova, S. P. (2012). Competence-Based Approach – a Methodological Basis of Formation of Projecting Competence of Future Teachers. *Pedagogical Journal of Bashkortostan*, 4(41), 62-68.
- Kobrina, L. M. (2009). Integration in the Vocational and General Education as a Condition of Development of Regional Social and Pedagogical System. *Bulletin of Southern Federal University*, 8, 222-233.
- Kokorina, M. A. (2012). Pedagogical Support of Valuable Orientations of Students of Secondary Vocational Educational Institutions in a Crisis Situation of the First Year of Training. *Scientific Dialogue*, 5, 176-190.
- Komendrovskaya, Yu. G. (2004). *Formation of projecting competence of the translator assistant in the course of vocational training*: PhD Thesis. Kuzbass State Pedagogical Academy, Irkutsk, Russia, 165 p.
- Kostyunina, N.Y. & Valeeva, a.R.A. (2016). Sandplay Therapy in Psycho-Pedagogical Correction of Preschool Children Fears. *IEJME-Mathematics Education*, 11(5), 1461-1469.
- Kovalyov, A. G. (1965). *Psychology of the personality*. Moscow: Education, 289 p.
- Kuzmina, N. V. & Kukharev, N. V. (1996). *Psychological structure of activity of the teacher*. Gomel: Gomel State University, 57 p.
- Lebedeva, G. A. (2000). Training in Pedagogical Design in the System of Vocational Training of the Teacher. *The education and science journal*, 3(5), 71-86.
- Malofeyev, N. N. (2007). Why Integration into Education is Natural and Inevitable. *Almanac of Institute of Correctional Pedagogics*, 11. Direct access: <http://almanah.ikprao.ru/articles-/almanah-11/pochemu-integracija-v-obrazovanie-zakonomerna>
- Markova, A. K. (1996). *Professionalism psychology*. Moscow: Knowledge, 312 p.
- Muravyeva, G. E. (2005). *Theory and technology of training in designing of educational process*. Shuya: Publishing House “News” of Shuya State Pedagogical University, 104 p.
- Newman, J. (1991). Handicapped Persons and Their Families: Philosophical, Historical, and Legislative Perspectives. *The Family with a Handicapped Child*, 2, 1-26.
- Nikitina, L. M. (2003). *Social pedagogics*. Moscow: Academic Project, 272 p.
- Ovcharenko, S. A. (1993). Methodical Approaches to Studying of a Problem of an Invalidization since the Childhood. *Health Care of the Russian Federation*, 11, 21–23.
- Pastorova, A. Yu. (2013). How People Share? *Down Syndrome of the 21st Century*, 2, 42-46.
- Raven, G. (2002). *Competence of modern society. Identification, development and implementation*. Moscow: Kogito-Center, 396 p.
- Shipitsyna, L. M. (2004). Integration of Children Special Needs. *Education and Training of Children with Violations in Development*, 2, 7-9.
- Shumilovskaya, Yu. V. (2011). *Training of future teacher for work with pupils in the conditions of inclusive education*: PhD Abstract. Shuya: Shuya State Pedagogical University, 26 p.
- Slastenin, V. A. (1997). *Pedagogics: innovative activities*. Moscow: Master, 233 p.

- Tarasjuk, O. V. (1999). *Forming among students of professional and pedagogical higher education institution of abilities of designing of studies*: PhD Thesis. The Russian State Vocational Pedagogical University, Ekaterinburg, Russia, 198 p.
- Tretyakova, N. V., Fedorov, V. A., Abramov, D. V. & Kalimulin, D. M. (2016). Educational Institution Health Service Management: Key Aspects of Communication and Interaction within the Team. *IEJME-Mathematics Education*, 11(8), 2841-2857.
- Ulyenkova, U. V. (2002). *The organization and content of special psychological assistance to children with problems in development*. Moscow: Academy, 175 p.
- Yakovlev, E. V. & Yakovleva, N. O. (2006). *Pedagogical concept: Methodological aspects of creation*. Moscow: VLADOS, 239 p.
- Yemelyanova, T. V. & Alexandrov, Yu. M. (2013). Theoretical Aspects of Readiness of Specialists in Physical Culture and Sport for Work in the Conditions of Inclusive Education. *Tolyatti. Vector of Science of the Tolyatti State University*, 3, 420-423.
- Zeer, E. F. (2004). Upgrade of Professional Education: Competence-Based Approach. *The education and science journal*, 3, 42-52.
- Zimnjaja, I. A. (2006). Competence-Based Approach. What its Place in System of Modern Approaches to Education Problems? (Theoretical-Methodological Approach). *Higher Education Today*, 8, 21-26.