Peculiarities of Psychological Competence Formation of University Teachers in Inclusive Educational Environment

Zikan Ke
Huazhong University of Science and Technology, CHINA
Natalia U. Borakova
Moscow State Pedagogical University, RUSSIA
Gulnara V. Valiullina
Kazan (Volga region) Federal University, RUSSIA

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ABSTRACT
The relevance of the issue covered in the paper is substantiated by the need to form secondary university teachers’ readiness and abilities to work with university students with limited health opportunities. The paper provides the research results and experience of psychological skills formation in university teachers as part of their professional competency in issues of inclusive education environment arrangement. The main research method is pedagogic experiment (stating, forming and control) aimed to reflect quality characteristics and dynamics of teachers’ psychological readiness to work in inclusive education environment. The paper suggests empirical data to determine factors that prevent humanistic relationships between the participants of educational process—teachers and university students. The paper proposes the program of teachers’ advanced training and retraining to develop appropriate psychological knowledge and emotional-volitional features for efficient professional activity in the context of inclusion. The materials in the paper are of scientific and practical value for future teachers’ training at higher education institutions, and for the system of teaching staff advanced training and retraining, as well.

Keywords: inclusive educational environment, professional competency, psychological competency, special educational needs, students with limited health opportunities

INTRODUCTION
Education in Russia is at the stage of profound reformations since the new Law “About education” came into effect on September 1, 2013. Key guidelines of educational practice development and change as well as the content of education relationship and law regulations of all participants of the educational process are determined. The definition of inclusive education as one of conditions for equal rights of all scholars with variety of special needs and individual abilities have become an important and progressive step in the development of valuable basis of Russian education (Alekhina, 2016).

The Federal state educational standard of primary university education of students with special needs was approved on December 19, 2014. The standard facilitates the unity of educational environment of the Russian
The aforesaid specifies significant changes in all areas of human society from education policy to financial and economic supply of this process. As a rule, teachers do not have basic competencies in issues of intercommunication and learning techniques to train people with limited opportunities as this kind of knowledge was not included in university’s programs (Bubeeva, 2010).

Students with special needs often find themselves in the situation of failure that negatively impacts their future cognitive and personal-emotional development and leads to university maladaptation. The mismatch of their capabilities to university requirements may result in low cognitive activity, loss of motivation and formation of passive life orientation (Cherkasova & Morgacheva, 2013).
The absence of special psychological-pedagogical knowledge of teachers who work with students with special needs is a serious obstacle on the way to the development of such students’ personality. In the context of inclusive education these issues obtain specific significance. In this regard, modern education requires that university teachers should have knowledge in corrective psychology, abilities to construct and arrange the study process in accordance with psychological peculiarities of universityers with special needs; they have to display tolerance towards these students, to provide individual-differentiated approach to their training, to evaluate the level of their own pedagogical activity.

LITERATURE REVIEW

The analysis of scientific and pedagogical literature in Russia

The problem of competent teachers’ training able and ready to work effectively with students with limited health opportunities is considered in works of many Russian researchers. S. V. Alekhina (2016) studies teachers’ readiness for inclusive education through the evaluation of two blocks; in particular, in the framework of professional and psychological readiness. In the structure of psychological readiness, the author specifies the following components: motivational readiness consisting of personal settings (moral principles of a pedagogue and doubts in regard to inclusivity); emotional acceptance of students with different developmental disorders (acceptance – rejection); readiness to include these students into educational activity (inclusion – isolation).

The works of A. S. Sirotuk (2012) deepen the consideration of psychological readiness. The researcher identifies basic professionally meaningful qualities of personality: a high level of motivational readiness to work with students with special needs; the need in professional and personal self-development; empathy, facilitative and communicative abilities. It is worth noting that the author proposes the idea of a unified system to prepare educational environment for work in the inclusive process, to unite all its participants when if one component is excluded (e.g. poly-subjective help to parents), then it is impossible to fully organize inclusion in the educational environment of a nursery or secondary university.

N. Y. Semago et al. (2015) propose to project preparation of experts that realize inclusive practice from the positions of systematical approach. The researchers identify three aspects of preparation: valuable, organizational, content-related; the program of preparation has a module-based structure. This allows both to form valuable guidelines in pedagogues that are necessary in inclusive education, and to develop the ability to arrange co-education of students with normative development and developmental disorders, to work out and implement basic adapted educational programs.

A. I. Akhmetzyanova et al. (2015) underline the necessity to search optimal forms to train students with limited health opportunities, to specify pedagogical conditions that provide special educational needs of students in inclusive educational environment. Improvement of teachers’ professional competency and their training for pedagogical activity in inclusive environment are considered as key conditions.

The analysis of foreign research

The foreign practice of inclusion in education has a wide research experience. In foreign countries, the system of inclusive education is theoretically substantiated and has successfully worked during the last few decades.

The research of teachers’, university students’ and public settings towards people with limited health opportunities is one of the directions with a lot of research publications. The researchers try to define factors that positively and negatively influence settings in relation to this category of people.

T. Stemberger (2013) made the research aimed to determine how teachers evaluate their knowledge and skills of psychological and pedagogical support of learners with special needs in inclusive educational environment. The author concluded that in Slovenia, teachers, particularly teachers of sciences, do not consider themselves competent enough for this type of pedagogic activity. Despite this, teachers mainly have a positive attitude to university students with limited health opportunities and they are ready to change training methods to implement objectives important for the inclusive educational process.

In the research of H. Avcıoğlu (2017), some peculiarities of teachers’ behaviour in inclusive classes, as well as the level of peers’ agreement for coeducation with mentally impaired university students are defined. The information was obtained from 16 teachers and 371 university students in 16 inclusive classes of four universities with inclusive practice. These data were collected by such methods as observation, interview and socio-metrical evaluation. As a result of visual observation, the differences between teachers and university students’ interrelation were determined. The obtained data indicate the difference in teachers’ interactive behavior in relation to university students with normal development and to mentally retarded students studying in the inclusive class. Results gained during personal discussions with teachers showed some differences between the way teachers evaluate their behaviour and activity, and the assessment that the expert gave. The teachers reassured that they did not differentiate their behaviour to university students in general.

Teachers’ interactive behaviour with mentally retarded university students impacted the interrelation of university students that, in turn, differentiated the level of acceptance at which students with normative development accepted mentally retarded ones.

The group of scientists S. Rakap et al. (2017) researched the influence of special education courses on the following indicators: general relation of teachers to students with special needs; readiness of pedagogues for work with students with intellectual, physical and behavioural disorders. The authors have concluded that successful implementation of inclusive practice depends on the attitude of teachers to students with special needs, and their readiness to work with students with limited health opportunities.

In Turkey, the research of the way teachers percept disabled students was made. The results of this research showed that teachers displayed positive attitude to this category of university students before their work with them. However, by the end of the first year of disabled students training, due to the lack of knowledge about these students and incorrect realization of inclusive policy, teachers gained negative experience of partnership with this category of university students; that changed their attitude to inclusion (Akdağ, 2017).

Researchers from China based their investigations on the theory of social constructivism proposed by Leo Vygotsky. They studied the perception of PE teachers from Hong Kong the opportunity to include university students with special needs into general curricula of physical culture. Obtained data testify to the necessity of frequent and effective communication, participation and collaboration between two interested sides involved in inclusive educational process (Wang et al., 2017).

P. Ojok (2013) and S. Wormns (2013) questioned 125 university teachers from semi-nomad pastoral communities of North-East Uganda. The results of the questionnaire showed that teachers have more positive than negative attitude to inclusion of mentally impaired students. Teachers’ participation in seminars and master classes positively influences their attitude to inclusive education.
Many foreign researchers write about the efficiency of interrelationship between teachers and university students. The Austrian researcher M. Mangano (2015) states that to arrange the participation of students with special needs in educational activities that most respond to their needs is important for the teacher to be in close proximity to the child in the classroom, to be confident in their abilities and know methods and ways of corrective work with such students. Brazilian scientists S. N. Matos and E. G. Mendes (2015) propose to form knowledge and skills in teachers to meet the requirements of university connected with co-living and study in the conditions of multiple variety. N. G. Yildiz (2015) studied the interconnection of secondary university teachers with students with special needs and came to the conclusion that behaviour of these students and the attitude of teachers to them depends on teachers’ specific preparation for interconnection with these universityers.

German scientists B. Badstieber (2016) and B. Amrhein (2016), based on their researches, suggest that qualification characteristics of teachers should be reconsidered with inclusive education in view.

The works of foreign researchers present different projects on the improvement of advanced training programs. Many authors note that the foundation of this problem is basic professional education of teachers. A. De Boer et al. (2011) point out that a great number of teachers are prepared for work with students with normal development and do not have experience of interrelation with students with special needs, hence, they need to be familiarized with peculiarities of students with special needs development, normative and methodological documents. The lack of such experience has a negative influence on the readiness of teachers to work in inclusive educational classes. However, the question of how much the current information affects teachers’ attitude to inclusion has a wide discussion among specialists.

The studies demonstrate that in the world scientific society there are problems similar to the problems of Russian education system. More often, they are related to a low level of readiness of teachers working in inclusive classes to expand the sphere of their professional and personal competency based on new knowledge and skills. The experience of group and individual research on problems occurred in practice, and the strain that accompanies their existence has not been formed yet. It is interesting to note that in the experience of developed countries there is no practice (or it has not been specified at the moment) of psychological and correctional work with pedagogues who demonstrate negative attitude to inclusion and anxiety connected with interrelation with the child with special needs and their family. In cases when pedagogues are opened for new professional experience, the problem of effective training techniques development and their professional support arises.

RESEARCH PURPOSE

The goal of the research is to develop a complex of pedagogical conditions to form special professional competency in primary university teachers and to prepare them for work with students with limited health opportunities in the context of inclusive educational process.

RESEARCH AIMS

The aims of the research are as follows:

1. To study the current state of teachers’ preparation for work in inclusive forms of education on the basis of literature review, and to identify key objectives for the system of teachers’ advanced training to form their psychological readiness to work with students with limited health opportunities.
2. To develop diagnostic techniques aimed to specify theoretical, methodical and psychological components of primary university teachers’ professional competency in issues related to inclusive education of university students with limited health opportunities.
3. To research the state of psychological professional competency in primary university teachers and their readiness for work in inclusive educational environment: to reveal factors that prevent humanistic relationships between the participants of the educational process, to determine quality characteristics of such parameters as readiness to accept the child with limited health opportunities, tolerance, empathy, reflexivity, focus on self-development.
4. To develop and experimentally verify pedagogical conditions in the system of advanced training that include methodological, methodical and organizational aspects of preparation and retraining of primary university teachers in compliance with new requirements to education of students with limited health opportunities.

MATERIALS AND METHODS

Research methods

The following methods were applied in the research: methods of analytical observing and reviewing of psychological, pedagogical, and methodological literature on the problem of psychological and pedagogical support of students with limited health opportunities in the system of general education, pedagogical experiment (stating, forming and control).

Experimental Research Basis

The research was conducted in Kazan (Volga region) Federal University, the city of Kazan, the Republic of Tatarstan; in secondary universities No 1, 6, 8, 9 in the city of Elabuga, No 108, 146 in the city of Kazan, No 8, 11 in the city of Leninogorsk, and No 3, 8, 21 in the city of Nizhnekams, the Republic of Tatarstan. 19 teachers took part in the research.

Stages of research

The research was conducted in three stages:

- the first stage – a preparatory stage – modern conditions of the researched problem were analyzed in pedagogical theory and practice; a program was developed and research methods were selected;
- the second stage – a main stage – the level of psychological preparation of teachers for psychological and pedagogical support of students with special needs in inclusive education was reviewed; additional educational program aimed to form teachers’ competencies in psychological and pedagogical support of students with special needs in inclusive educational environment was developed; pilot-experimental work aimed to analyze the effectiveness of this program was conducted.
- the third stage – a final stage – systematization, reflection and generalization of research results were made; theoretical conclusions were specified; processing and presentation of obtained results was made.

RESULTS

Structure and content of the research program

The aim of the research is to evaluate teachers’ psychological readiness for work with students with limited health opportunities.

Stages of the program implementation:

Stage I – identification of the level of psychological competency in teachers and their readiness to psychological and pedagogical support of students with special needs in inclusive education;

Stage II – development and implementation of the program aimed to form teachers’ professional competence skills, including its psychological component, in issues of psychological and pedagogical support of students with special needs in inclusive education.

Stage III – experimental verification of the efficiency of content and methods aimed to form psychological knowledge and readiness in teachers to conduct psychological and pedagogical support of students with special needs in inclusive education.
The stating stage

The stating stage of the experiment covered the diagnostics of teachers’ psychological readiness for psychological and pedagogical support of students with special needs in inclusive education. Positive psychological settings for work with this category of university students, development of some specific individual characteristics such as acceptance of the child, tolerance, empathy, reflexivity, and focus on self-development were studied.

The following tests were applied to study psychological competency:

- the technique to study empathy (Yusupov, 1992). We consider empathy as “the teachers’ ability to put themselves in someone else’s shoes”, the ability for voluntary emotional responsiveness to troubles of other people. Empathy facilitates the balance of interpersonal relationship. From our point of view, empathy is a significant professional quality of the teacher. Due to this reason, the aforesaid test was applied as one of psychological competency indicators. The following levels of empathy are considered: below 36 points: low level; 37-62: average level; 63-90: high level;

- the express questionnaire assesses the “Index of tolerance” (Soldatova & Shaygerova, 2013). The express questionnaire “Index of tolerance” reflects the attitude to the environment and other people, social settings in different spheres of interaction where signs of human tolerance and intolerance are manifested. The levels of tolerance are as follows: 22-60: low level; 61-100: average level; 100-132: high level.

The study of empathy and tolerance in teachers by applying tests in the stating stage of the research revealed an insufficient level of such components of psychological competency as empathy and tolerance in them (Table 1).

Diagnostics of levels of teachers’ psychological competency in issues of psychological and pedagogical support of students with limited health opportunities in inclusive education showed an insufficient level of this competency formation (Table 2), and allowed to conclude that competencies, necessary to implement the correctional component of pedagogical process, are not developed in the framework of teaching staff professional training; that, consequently, impedes psychological and pedagogical support of students with special needs in inclusive educational environment.

The forming stage

On the basis of studying the levels of teacher’s psychological readiness for psychological and pedagogical support of students with limited health opportunities in inclusive education, the content, methods and organizational forms of teachers’ training and their preparation for psychological and pedagogical support of students with limited health opportunities in inclusive education were specified. As a result, an extended

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**Table 1.** Mean values in groups according to testing in the stating stage of the experiment (in points)

<table>
<thead>
<tr>
<th>Testing</th>
<th>Test «Empathy evaluation »</th>
<th>Test «The level of tolerance»</th>
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<tbody>
<tr>
<td>$\bar{x}$ (Arithmetic Mean Value)</td>
<td>46,6</td>
<td>50,3</td>
</tr>
<tr>
<td>$\sigma$ (standard deviation)</td>
<td>8,9</td>
<td>9,2</td>
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**Table 2.** Diagnostic results of psychological competency levels development in university teachers, %

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<th>Levels</th>
<th>Psychological competency</th>
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<tbody>
<tr>
<td>high</td>
<td>12,3</td>
</tr>
<tr>
<td>average</td>
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professional education program of advanced training “Psychological and pedagogical support of students with limited health opportunities in inclusive education” for teachers of education institutions was elaborated.

The program is aimed to form professional competencies in university teachers in the framework of inclusive educational process implementation, including psychological competencies in the following aspects: necessary psychological knowledge, emotional-personal characteristics, abilities to apply methods, diagnostic and correction techniques in pedagogic activity.

In accordance with the goals of the research the following objectives of the course preparation were set up:

- assimilation of principles and methods of psychological and pedagogical support of students with special needs in inclusive education;
- identification of peculiarities of dysontogenetic development in students with special education needs by their teachers;
- specification of optimal age periods for the correction of mental functions;
- training teachers in methods and technique of differentiated diagnostics to distinguish disorders in psychophysical development of university students from similar conditions of another nature;
- organization and content of diagnostic, correction and preventive teacher’s activity;
- formation of a positive psychological setting to work with students with developmental disorders, development of personal traits such as: acceptance of the child, tolerance, empathy, reflexivity, and focus on self-development.

This program considers the requirements of the Act «About education in the Russian Federation», state educational standards of higher professional education, and Special Federal educational standard.

The content of the program is focused on the renewal of psychological and pedagogical knowledge of primary university teachers, obtaining knowledge in the area of psychological and pedagogical support of students with special needs in inclusive education.

The program comprises of the following modules:

(1) Modern statutory and legal fundamentals in education.
(2) Organization of educational and rehabilitation process of students with special needs in inclusive education.
(3) Psychological and pedagogical fundamentals of professional activity.
(4) Content- and process-related aspects of professional activity.

Modules are made of topics; that supposes the introduction of lecture material at seminars or practical classes for listeners and include traineeship in inclusive educational institutions.

Methods of trainees’ education:

(1) The lecture-information is focused on the summary and explanation of scientific information exposed to intellectual processing and remembering.

(2) The summary lecture is aimed to systematize scientific knowledge at a high level; it includes a great number of associative links to apprehend information used to reveal inter-subject and in-subject links excluding specification and particularization. As a rule, the core of delivered theoretical statements makes up scientific and conceptual basis of the entire course or its sections.

(3) The problematic lecture is based on the fact that new knowledge is delivered through the problematic of the question, objective and situation. The process of trainees’ cognition in cooperation and dialog with the lecturer leads to a kind of research activity. The content of the problem is revealed due to the search of its solution, or summary and analysis of traditional and modern points of view.
The binary lecture is a variation of the lecture delivered by two lecturers (either as representatives of two scientific universities, or as a scientist and expert, or a lecturer and listener).

The lecture with preliminary planned mistakes is oriented to stimulate listeners to the constant control of the presented information (the search of mistake: content, methodological, methodical, and orthographical). At the end of the lecture, the diagnostic of listeners and mistakes correction is conducted.

The lecture-conference represents a scientific and practical class with the problem set in advance and a system of 5-10 minute reports. Every presentation is a logically finished text, prepared beforehand within the program proposed by the lecturer. The combination of given texts suggests comprehensive consideration. At the end of the lecture, the lecturer summarizes results of trainees’ independent work and presentations, adds and clarifies given information and forms key conclusion.

The lecture-consultation is delivered according to different scenarios. The first scenario is implemented in the way «questions-answers». The lecturer answers trainees’ questions on the whole module or separate topics during the lecture. The second scenario of the same lecture takes place in the way «questions-answers-discussion»; it is a trice combination: presentation of new study information by the lecturer, questions and discussion to search answers for proposed questions.

The seminar-dialog is a kind of an independent group work to promote deeper learning of the material, formation of worldwide views, demonstration of individual abilities, combined creativity, formation of interest in the subject.

The dialog-micro research – a form of interaction that describes the process of learning, experimentation, conceptualization and verification of the theory, acquisition of new knowledge in communication.

The curriculum is a part of the Program. Educational process organization is built in accordance with the thematic plan and curriculum. Forms and methods of training vary for different categories of trainees according to their preparation. To enhance practical orientation of education, practical forms of work with trainees make up the main part of the curricula. They suggest active training forms and methods: discussions, round tables, business and role games, training exercises, solution of social-pedagogical and psychological tasks, situation modelling, development of models, and projects of activity, brain-storming.

The study of program parts is accomplished with final assessment. Trainees have the right to choose independently the form of final certification. The following methods of assessment are used: questions for interview, topics of essays, test questions, and creative works.

**The content of teachers’ training in the system of advanced training**

The program included 4 stages:

**Stage 1** – university teachers’ preparation for psychological and pedagogical support of students with limited health opportunities in inclusive education.

*Goal:* formation of professional competencies in university teachers in inclusive education.

This stage embraced the following:

1. advanced training of teachers to form competencies in psychological and pedagogical support of students with limited health opportunities in inclusive education.
2. seminars, round tables, business games to form teachers’ competencies in psychological and pedagogical support of students with limited health opportunities in inclusive education environment; psychological and pedagogical training in the off-term period.

**Stage 2** – analytical.

*Goal:* comprehension of obtained knowledge.
In this stage we relied on the activity-based principle; we proceeded from the supposition that the level of psychological competency in issues of psychological and pedagogical support of students with limited health opportunities in inclusive education increases in case of plunging into the problem. The stage is focused on the reflection of own knowledge, skills and abilities of the studied program. Group and individual consultation of teachers on arising questions was conducted.

Stage 3 – practical.

*Goal*: verification of teachers’ professional competency improvement in the experimental group in practice.

Knowledge gained by teachers in this stage was applied in practice during a two-year period; it allowed to develop necessary skills and personal qualities in teachers, to form their professional skills and abilities for psychological and pedagogical support of students with limited health opportunities in inclusive education (in experimental groups).

Stage 4 – final.

*Goal*: awareness of key guidelines in self-change (self-development).

This stage covered a repeat study of the level of professional competencies and psychological readiness of teachers for work with students with limited health opportunities. Seminars, business games, trainings were conducted and participants of the experiment independently discussed issues of psychological and pedagogical support of students with limited health opportunities in inclusive education.

**Experimental verification of training content and methods effectiveness in the system of teachers’ advanced training**

To determine the effectiveness of the proposed program content and methodology, the levels of teachers’ psychological competencies development (N=19) were assessed before and after advanced training (Table 3).

The data based on the results of the developed program approbation testify to the improvement of named competency levels in teachers participated in the research.

**DISCUSSION**

The problem of forming teachers’ professional competency was researched by quite a number of philosophers, pedagogues, and psychologists. These issues are considered in the works of N. A. Zimnaya (2003), E. F. Zeera (2014), M. A. Choshanov et al. The particular interest is drawn to purposeful preparation of the teacher of an innovative type and their professional competency; these ideas are presented in studies of V. I. Baydenko (2005), V. V. Guzeev (1993), A. A. Dorofeev (2005) and other authors. Quite serious attention is paid to the implementation of the principle of continuity and differentiation teachers’ advanced training; to the development of teachers’ professional interests, research and creative abilities, professional and pedagogical culture (Karakovsky, 2001; Shmelkova et al., 2002). It seems important to research the problem of teacher’s professional development during advanced training and to create appropriate conditions for the specialist development (Vvedensky, 2004; Panina et al., 1999). However, pedagogical conditions to form components, including

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psychological ones, of teachers’ professional competency in issues of psychological and pedagogical support of students in inclusive education have not been researched sufficiently.

CONCLUSIONS

The verification of the effectiveness of the stating stage program resulted in the following conclusions: the process of teachers’ psychological competency formation and their preparation for psychological and pedagogical support of students with special needs can be effectively implemented in the system of teaching staff advanced training. During the process of teachers’ retraining in compliance with the proposed program, it is possible to achieve a higher level of pedagogical competency components formation in the following aspects: necessary psychological knowledge, emotional and personal characteristics, abilities to apply methods and ways of diagnostics and correction in pedagogical activity. Stage by stage formation of necessary professional qualities of the teachers’ personality suggests systemic work during the period of advanced training and afterwards. The elaborated and tested program may be considered as one of the variants of teachers’ professional preparation in the system of teaching staff advanced training and retraining. The scientific novelty and theoretical significance of the research are substantiated by obtained and analyzed data that allow to specify quality features of psychological competency (in the structure of general professional preparation) of primary university teachers and their readiness for pedagogical activity in the context of inclusive education. Pedagogical conditions of teachers' preparation for correction-pedagogical work with university students with limited health opportunities through the system of advanced training and assimilation of additional education programs are specified.

RECOMMENDATIONS

The conclusions, suggestions and recommendations presented in the research may be used to create an effective system to form psychological competencies of university teachers in the context of inclusive education implementation. The materials in the article may be applied to prepare training courses of correctional pedagogics and special psychology to improve professional qualification of university teachers as well as to form psychological competency in future higher education teachers.

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