From an Undergraduate Special Education Student to an Expert Researcher

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Abstract

Becoming an expert researcher is important for students majoring in special education. Studying the issue is relevant and urgent due to the fact that there are quite a number of diverse and flexible education forms for the persons with special educational needs; educational needs shape the preparation process of a universal teacher, the one who is willing to seek for innovative technologies and is capable of doing research. The goal of the article is to describe and systematize the effective organizational forms, methods, and techniques of personal and professional development for students who are to become future special education teachers capable of doing independent research. Methods used are observation and survey as a result of which 160 students studying in a special education program of Saratov State University were interviewed; the study revealed the dynamics of their self-assessment regarding their professional qualities and creative abilities.

The study confirms the necessity to enhance the students’ personal, creative and research potential in various types of training, educational and social activities provided at the university. The procedural model of an expert researcher development created and proposed by the authors enables the possibility to focus on professional growth and self-improvement of future special education teachers. The proposed model can be recommended for use; its implementation is in accordance with the general educational trend to problem and project training using active methods of work with the teacher in the forms of scientific, creative, interactive collaboration.

Keywords: special education; expert researcher; research potential; students; development model.
**Introduction**

Currently, education is becoming more open, its forms are non-linear and flexible, multiple and overlapping, and that puts teachers in the situation of constant experiment and search. The teacher tries on different roles, the most important of which is the role of a researcher. The work of a special education teacher is getting more and more complicated; ensuring the maximum efficiency of the learning process for children with special educational needs and different abilities is possible only for the teacher-researcher who has to find an individual approach to each child. "The lower the level of mental development of the child, the higher should be the level of the teacher’s education" (Nazarova, 2005, p.75).

The Russian Federal State Educational Standard of higher education for the course 44.03.03 "Special Education" requires students to acquire research skills in the process of developing universal and general professional competences. Research work of students is considered a mandatory type of internship. Students complete research tasks while studying various courses as well as during the teaching practice at school when acquiring the abilities to do a search, to carry out critical analysis and synthesis of information, to apply a systematic approach to problem-solving; they learn to determine the range of tasks and choose the best ways to solve them in order to achieve a set goal doing all these within the framework of existing legal norms, available resources, and restrictions; students also learn how to build and implement a trajectory of self-development based on the principles of life-long education.

In addition to having excellent knowledge in the subject area, psychology and traits of health-challenged children; contemporary teachers need to have internal creative resources, emotional charge, and internal motivation. This is what the teacher "brings" to children every day, which determines the effectiveness of any activity, including research, and it cannot be regulated by standards and orders. In modern conditions, when the burden and responsibility placed on teachers are constantly growing, even a comprehensive and multifaceted competence approach to the professional training of teachers does not exhaust the potential of interaction between the university and the student. Professional awareness, self-determination, professional competencies structuring, personal and professional development – students do all these on their own while realizing and developing their own internal resources that comprise preferences, skills, creative abilities and talents in a variety of activities.

The relevance of this research is directly related to the search for the optimal development model of a special education teacher into an expert researcher.

**Literature review**

Foreign scholars are interested in the issue of professional training aimed at work with children with developmental disorders. A vast number of articles contain a comparative analysis of training programs for special education teachers and discuss the need for their revision and improvement (Brownell, Ross, Colón, & McCallum, 2005; Brownell, Kiely, Sindelar, & Danielson, 2010; Sayeski & Higgins, 2014; Young, 2018).

The growing demand for professional training of special education teachers is clearly seen in the conducted analysis of the scientific studies and practice of special education in Russia, as well as in the work on the project called Professional standard of the special education teacher (speech pathologist, teacher of the deaf, teacher of the mentally challenged, teacher of the blind) that started in 2015 (Evtushenko & Levchenko, 2017). Giving a general preliminary assessment of the state of this problem, we have relied on some classical studies of Nazarova (2005) and other distinguished scholars devoted to the general issues of special education that is still a factor of socio-cultural integration of the individual today.
(Selivanova, 2015, p. 295). More attention is also being paid to the well-rounded personality of special education teachers and the level of their professional training. A special education teacher is engaged not only in training, education and development of health-challenged children but also in the problems of their psychological, social and labor adaptation in further independent life (Gorina, Bajbulatova, & Hmelkova, 2018). The multi-aspect nature of the profession of special education teachers assumes that they are able to play different roles, and therefore, they get to be adaptive and should demonstrate an adequate attitude to uncertainty, which are two interdependent factors (Shamionov, 2017).

A number of contemporary works reveal the importance of the research activities conducted by students (Zlydneva, 2006; Zimnyaya, 2010; Demchenko, 2013); other works discuss the development of a professional competence of teachers of the mentally challenged (Yakovleva, 2009) and professionally significant qualities of future special education teachers (Yastrebova, 2008). Students research activity is traditionally interpreted as "a kind of creative, cognitive activity aimed at mastering the ropes of independent theoretical and experimental work, modern methods of scientific research, and the technique of the experiment" (Koldina, 2009, p. 42); this activity is considered as "an integrative phenomenon that has the aptitude to self-organization caused by the logic of scientific research and a student’s personal attitude to the problem under study" (Gorchakova, 2018, p. 5). Another interpretation of this activity states that it is a form of "personal education that determines the state of the subject's personality and includes a motivational and value attitude to this activity, a system of methodological knowledge, research skills that allow them to be used productively to solve emerging professional and pedagogical problems" (Shadchin, 2012, p.73).

Lisovskaya (2013) presents the professional competence of the special education teacher as a union of two clusters – general pedagogical and special pedagogical. The first cluster consists of a methodological component that includes problem-pedagogical culture and a methodical one, i.e. the ability to hear and see something that is inaudible and invisible since the main source of knowledge about the child is to observe him, record and analyze all his ways of expression, perceive the pain points of the child and select appropriate strategies and tactics of training; this component also implies that a teacher possesses a wide range of methods and techniques, both traditional and completely new, innovative, as well as dialogue and interactive methods of learning, the ability to impersonate (acting skills), the ability to seek and find non-linear, non-traditional ways of solving the problem, the ability to move away from the stereotypes and clichés, and finally the ability to create new learning technologies.

The special pedagogical cluster also consists of two components – communicative (possession of non-verbal and verbal communication techniques, the ability to create vital situations) and environmental (communication at an accessible level for mentally challenged students correlating with their speech capabilities, interests, and needs (Shpek, 2003). From our point of view, both methodological and special pedagogical clusters are directly related to research skills.

According to Shadchin (2012), 90% of respondents experience significant difficulties in mastering research activity skills. Demchenko (2013) believes that the following criteria allow evaluating the degree to which students are prepared for research activities: value orientations, intellectual, reflective, communicative and organizational skills.

**Research methods**

The goal of the study is to investigate and conduct a practice-oriented search for organizational forms, methods, and techniques of personal and professional development of students as future special
education teachers capable of research activities, without which in the current situation it is not possible to work with children with special educational needs.

Research objectives were (1) on the basis of theoretical analysis of Russian and foreign sources, to investigate the current status and features of the development process from a Special Education student into an expert researcher; (2) to identify empirically the initial level of personal development of students (in terms of motives and self-assessment of professional activity) and the impact of teaching practice on its dynamics; (3) to unfold the mechanism of professional and personal development in the university learning environment; (4) to demonstrate the interdependence of the research skills development and their application in professional activities depending on the personal component; (5) to generate a procedural development model of an expert researcher.

In order to reach the objectives, we have used the following methods:
- analysis and synthesis of scientific literature on the problem of professional and personal development of a student;
- informal interview;
- a test method of diagnostic study of motives for choosing a professional activity;
- survey (authors’ questionnaire);
- non-standardized field covert observation;
- experience analysis of educational institutions for health-challenged children;
- the use of the practice of individual and joint creative and research activities of students;
- modeling.

The empirical study involved 160 Special Education students studying at Chernyshevsky Saratov National Research State University at the Department of Psychological, Pedagogical and Special Education.

The study was conducted in the period from 2010 to 2018 and consisted of theoretical and empirical parts.

The theoretical study was devoted to the analysis of the research problem, the study of its relevance and development in psychological and pedagogical science as well as to the experience analysis of educational institutions for health-challenged children. At this stage there was identified the problem, the goal of the research, its methods, and the plan of the empirical research was made.

The empirical research included the identification of the initial level of students’ personal potential (determinative/diagnostic stage), the process of professional and personal development of a Special Education student through his or her involvement in various areas of students activities (constructive/formative stage) and the analysis and synthesis of the results, the identification of interdependence, evaluation of the effectiveness of the development process and, finally, its modeling (control stage).

**Results**

On the basis of a system-activity approach, Saratov State University carries out the process of professional and personal development of a Special Education student into an expert researcher able to apply research skills in their long-term professional activities. This process is complex and multidimensional; however, content, motivational and emotional-evaluative aspects are the most significant ones in it, from our point of view.
The content aspect is based on professional competencies that are defined by the standard of higher education – Bachelor's degree in the field of special education – and is measured by the indicators specified in the basic educational program and realized in the course of studying academic disciplines with the help of the continual and final assessment. The motivational aspect is investigated when students just enter the University and start their education; the investigation is carried out in order to identify the motives of a career choice using diagnostic techniques. Finally, the emotional-evaluative aspect is studied with respect to the dynamics of self-assessment of professional qualities and creative abilities before and after the teaching practice at school.

At the diagnostic stage of the experiment, we studied the motivational and emotional-evaluative aspects.

In the second year of their studies, when students are relatively well oriented in their chosen academic field (after the 1st year they have completed the introductory internship, according to the curriculum they begin to study some professional courses), the diagnosis of their motivation to choose a career is carried out using K. Zamfir method modified by A. A. Rean that reveals internal and external motives (Bordovskaja & Rean, 2000).

We have obtained the following results: 60% of the respondents have internal motivation for their professional activity, i.e. they want to get satisfied with the process and the result of their professional activity, consequently they are aimed at acquiring knowledge and practical skills in the field of special education, they want to be employed in the chosen professional field and improve their professional skills. 20% of the respondents have the external positive motivation, i.e. they are aimed at career growth and material prosperity, but it is not obvious whether this will be associated with the chosen profession. The remaining 20% showed external negative motivation due to fear of criticism from the outside.

In about a year, in their 3rd year of studies, before the teaching practice at primary school, an express questioning of students is conducted in order to find out about their self-assessment of professional qualities and creative abilities using our own technique. The following tasks are proposed.

1. Read all the options to self-assess your readiness for practice. Select the options that correspond, in your opinion, to your own feelings, if necessary, add something to any item:
   a. I can do anything because mentally challenged children do not need a lot of knowledge. I'll be able to explain to them any topic somehow...
   b. I can't do anything, I don't know anything, I remember nothing and I am afraid of everything. I wish this practice was over!...
   c. I'm not the first one, and not the last to undergo through this. Just let it be. Something will happen...
   d. I will try to do my best to teach the lessons as ideally as possible…

2. Evaluate your creativity to prepare for the lesson:
   a. I'll download a lesson plan from the Internet;
   b. I will partly change the already prepared lesson plan, will introduce something new, interesting for the children;
   c. I will create a completely new lesson plan on my own.

Analyzing the answers, we divided the students into three groups. The first group included "confident optimists" – students who in task 1 chose option A – they comprise 26% of the total number of respondents. These students have shown, on the one hand, a fairly high degree of self-confidence, on the other hand, the ability to criticize their own capabilities, and the ability to comprehend the seriousness of
the moment (teaching practice requires concentration, responsibility, concentration of all efforts – both moral and physical, intellectual and creative). These students prepared themselves in advance for the difficulties and the ways how to overcome them including the help of university teachers and supervisors, they set up to "win" the trust of children. Their sense of self-confidence before the start of the teaching practice has strengthened: "I can do and know anything, I remember everything and I am afraid of nothing!".

The second group included "uncertain optimists" ? – the respondents who chose options B and D in task 1 – 51%. These students were not very confident, but serious enough about the upcoming meeting with mentally challenged children and were ready to do everything in their power to succeed in the school, these students showed interest in the best results. They were quite open to sharing their doubts: "I fear the teaching practice, but I want to try my hand at being a teacher... the main thing is not to show fear!"

The third group consisted of "indifferent" students, those who did not differ in a variety of options for self-assessment and chose mainly statements B and C in the task 1-23%.

Self-assessment of the students’ creative abilities quite correlated with the self-assessment of the professional qualities: The 1st group of students ("confident optimists") often chose the answer B (ready to partially change the lesson plan – the ready-made outline saves time for creative research), the 2nd group ("uncertain optimists") preferred option A (however, during teaching practice they had to add and make amendments to the lesson plans), and the 3-rd group ("indifferent") chose options either A or B. The students consider it irrational to create a completely new lesson plan on their own; when they do make this choice, they also choose options A or B at the same time depending on how much time is available for preparation and the degree of how it is difficult to work with a particular group of children, and also what lesson needs to be prepared (a favorite subject or not).

Correlation of the results between self-assessment of professional qualities and creative abilities and motivation of professional activity allows us to state that among the students of the 1st and 2nd groups, the majority had internal motives for choosing a profession. Also, students of the 1st group had external positive motives associated with the work in the professional field, and students of the 2nd group had external negative motives. External negative motives prevailed among students of the 3rd group. This indicates that the period of studies leads to some transformation of the motivational choice, which confirms the covert observation of students in the process of teaching them.

Students with internal and external positive motivation from the 1st and 2nd groups more effectively master the research skills, they are willing to use them in the process of teaching and understand the necessity of such skills.

Having analyzed the initial state of the students’ personal component of readiness for a professional activity, we proceed to the description of the constructive/formative stage and evaluation of its effectiveness in the process of professional personal development of a Special Education student into an expert researcher.

The constructive/formative stage continues throughout the period of their studies and includes a variety of activities related to students’ professional and personal development as expert researchers: educational, creative, volunteer, research activities. Along with that, this stage includes a training period when students participate in three types of internships: summer camp, teaching in primary and high special schools.

Students always have an opportunity to express their creating potential in the classroom where a variety of practice-oriented learning technologies are used. We will name only some types of scientific and
methodical creative activities involving the completion of tasks with elements of research activities, for example, the development of role-playing and business games on professional topics and participation in them, the development of project activities, a discussion platform on modern problems of special education, testing the reliability and validity of new psycho-correction technologies to work with health-challenged children, monitoring their professional self-development, preparation and conduct of experimental tasks with school students during teaching practice, etc. Under the teachers’ supervision, students develop teaching materials, which are then compiled collective electronic manuals for the trainees and teachers ("Thematic alphabets in pictures and cartoons", "Multi-therapy in the classroom", "Creative laboratory of teachers and students") (Pavlova & Sokolenko, 2016).

All kinds of teaching practice, of course, can be attributed to the formative stage because it is the practice that is the most important component of professional and personal development of the future special education teachers, the display of their teaching potential. Students not only acquire the necessary professional competence, learn the ropes to organize a correctional educational process, but also "test themselves" whether they suit the chosen profession, and most importantly they learn to understand that work with children with developmental disorders requires the heart and the soul, extraordinary faith in the capabilities of their wards, maximum dedication to this everyday hard work, the ability to enjoy the process of communication with challenging children, and, at last, constant self-education, professional and personal improvement. The students come to understand that they have chosen an extreme profession that will always set non-standard tasks for them, the tasks that not everyone can cope with. This is the period when the students experience an unusual and maximum moral load, but at the same time, they are pleased with new impressions and experiences.

Other students’ activities also have a positive impact on their personal and professional growth and contribute to the development of research skills. The presence of various hobbies is an additional inexhaustible resource of creative inspiration for each student and teacher as well as a means of preventing the so-called "professional burnout". The observations show: if a student, in addition to studying diligently, has a hobby, possesses some creative skills, or is able to organize and inspire the team, he or she is more interesting for their future school pupils, including personal enthusiasm and versatility.

To develop these abilities, the University should create a pleasant environment for students to realize all their talents and even discover new ones. More than twenty professional and creative competitions per year are held at Saratov State University and at our department – "The First Step into the Profession", "Student Spring", "Club of the Funny and Resourceful", "Competition of Intellectual Contemporary Art", "Heirs of Traditions", "Week of Student Initiatives" and others.

Student volunteering is another means of personal and professional development: charity events "Ribbon of Good", "Donor Day", etc.; organization of holidays, concerts for health-challenged children, participation in project activities; collaboration with various public organizations and movements ("Special Olympic Committee of Saratov Region", the International Integration Camp "Our House", the Regional Center for the integrated social services for children and the youth "Youth plus", etc.). Volunteers provide targeted assistance to families with children with developmental disorders. The students offer invaluable assistance not only for the care of the disabled children, they help to organize their leisure activities, and also conduct various remedial classes with them.

The students’ research activity in the system of teacher training education is one of the important aspects of the competence of the modern special education teacher. Every student, like every teacher, is a potential researcher. Essential qualities of a teacher as a researcher are the ability to observe, to notice the
smaller successes and changes in the mood of children, the ability to organize psychological and pedagogical experiments, to evaluate the effectiveness of correctional and teaching impact, to analyze the results, the ability to learn from children, develop and adapt educational material, special teaching AIDS. Data collected by students as a result of personal observations and experiments can be the basis for their course and final qualifying research papers.

As a result of these activities, students develop professional competence, professionally significant personal qualities, and creative abilities. The more productive the student’s various activities, the more successful he or she becomes in terms of mastering research skills, competencies.

At the control stage, after completion of two active teaching internships at school and when comparing the answers received from the same students, certain changes in the self-assessment of professional skills were revealed in the answers of the majority of respondents.

Some students from the 1st group ("confident optimists") have gained a feeling of confidence. They confirmed their initial choice. Several students moved from group 1 to group 2, changing their choice, which is justified by the difficulties encountered and the unsolved problems as well as unjustified expectations and overestimated self-esteem of their professional abilities. Along with that, students who were previously assigned to the 2nd and 3rd groups, not very confident in their professional capabilities or relatively indifferent, moved to the 1st group. The number of self-confident students as a whole increased and comprised 35%. Students-trainees of this group conducted the most interesting lessons, studied compensatory abilities of children, their hobbies, motivated the children with their own enthusiasm, using research skills in the course of interaction with children. We have established a pattern according to which these students are most involved in academic life, active in all activities.

In the 2nd group ("uncertain optimists") there was an increase in the number of respondents who noted in the questionnaires that "it's not so scary, everything turned out well"; they understood that they need to "take into account the experience of the first teaching practice and not to repeat their own mistakes and the mistakes of others." The level of reflection and introspection skills has clearly increased for the majority of interns. However in general, the number of students in this group has changed slightly (48%), because there was a redistribution in this group: students "moved out" of this group into group 1 and, on the contrary, some students "came" here from the 1st group, those with high self-esteem; in addition some students from the 3rd group who were very afraid of various surprises and unforeseen situations also moved here. Students-trainees of this group were very diligent, listened to the comments of the supervisors and teachers, and tried to follow the advice. They used research skills within the framework of their research work. They carried out pedagogical experiments with caution. In their academic life, these students do not show many initiatives, but are always ready to respond to any request for help or perform any assignment.

In the 3rd group ("indifferent") the number of students decreased and comprised 17%, due to their professional "growth" and transition to the 1st or 2nd groups. A certain number of respondents, of course, are able to perceive the teaching practice as something inevitable, although interesting and creative but still "they wished it was over!". Some diligent students express such wishes and statements, probably, due to that enormous moral responsibility they experience when playing the role of a teacher. Besides, in this group there is always a certain number of students who are not motivated to perform professional teaching activities, they are hardly involved in various types of social extra-curricular activities at the department, they are not focused on the research work and improvement of the results of their work.

We found no significant changes in the results compared with the initial data on the early views of
students about the profession, about their ability to comprehend its various aspects. Some students at the very beginning of their studies at the University are seen as creative, stress-resistant individuals, ready for various problems associated with professional development – they comprise about a fifth of all the applicants. Most students are not at all sure at first that they will overcome all the difficulties, including their own fear; they are not even sure that they have made the right and final choice. Some of the graduates do not look for the employment in the trained professional field, while others develop, work hard on themselves, absorb the new and unique information and are not afraid of any difficulties. The results are presented in Figure 1.

![Figure 1](image-url)

**Figure 1. Dynamics of self-assessment of students’ professional qualities and creative abilities**

Along with that, a general pattern is revealed: students with internal motivation, adequate self-assessment of their professional qualities, creative abilities, and students involved in different types of student activities in the learning process more fully and effectively reveal their research potential during the teaching practice. They are active and ready for innovative changes in professional behavior, interaction with school students, they understand the need for constant information search and self-improvement, have a grip of the paths of educational and research activities – this is what the development of a Special Education student into an expert researcher is all about.

The long-standing collective experience, interaction with students as well as the results of the empirical research allow us to present our own *procedural development model of a Special Education student into an expert researcher*: in the process of mastering professional competencies and personal growth through various activities from the initial intellectual, personal and creative potential of the student there is a step-by-step development: "student-observer – student-trainee – special education teacher – expert researcher". As a result, research skills that are used in professional teaching activities are formed at each stage (Figure 2).
Figure 2. The procedural development model of Special Education student into an expert researcher

It is apparent that all the stages of the model are connected with each other by different types of educational and professional communication. Each of these agents is already to some extent a researcher. Many students literally in the 1st year are involved in active scientific work. At the same time, teachers with experience should not forget that they are "students" for life – there is always something to learn, especially with the development of new standards, variable programs, and alternative textbooks.

Discussion

Multifunctional nature of pedagogical activity is determined by the requirements of the educational standard, which identifies 6 main interrelated functions of a modern teacher: teaching, project, research, methodical, administrative, cultural and educational.

The scientific sources partially present the aspects of professional development and personal development of teachers; they investigate the research potential and research activities of students at a university. The analysis of psychological, pedagogical and special literature showed that the problem of a Special Education student development into an expert researcher is not studied enough.

The authors consider the means of problem education as a valuable tool to develop readiness of students of Teacher Training Universities for research activities (Nikitina, 2009). Having taken into account the psychological traits of individual, interpersonal relationships and professional traits, the authors also developed a map of professionally significant personal qualities (Simonov, 1995). They also proposed a synthesis of approaches to the development of professional competence of special education teachers (Norkina, 2011).

We believe that professional awareness, self-determination, self-realization are the aspects of personal development of Special Education students into researchers that correspond to the content of
professional competencies and are associated with the development of students’ internal resources: preferences, abilities, creative inclinations and talents which develop during training at a higher education institution during the teaching practice and in the course of continuous self-education. The research aspect is directly related to the development of a student’s creative abilities.

We consider the creative interaction of University teachers, students and school teachers as the main resource in the search for innovative technologies in the education of health-challenged children. This interaction provides a joint solution to research problems as well as the development of innovative textbooks and creative projects.

Our vision of what the essence of the activity of the special education teacher as an expert researcher is perfectly complementing, to our minds. As a product of the educational process, he sees not "a narrow professional with a limited amount of knowledge and limited cultural needs", but "an active, creative, non-standard-thinking person with not only a certain stock of knowledge and the one who enjoys gaining new knowledge, but also a person with a developed system of values and concepts capable of self-control, self-realization and self-improvement, responsible, ready for continuous education, able to independently make decisions, motivated by innovative behavior, resistant to frustration, a well-educated and polite subject of the society" (Feldshteyn, 2012, p. 18).

**Conclusion**

After completing their studies at the university in the training program "Special education", graduates work not only in special schools with adaptive learning programs but also in inclusive schools with integrated classes. Completely different children can study in one grade today; these children differ in the level of psychophysical development, emotional state, family situation, and include mentally challenged children, children with complex needs, with severe multiple developmental disorders, and autism spectrum disorders. Today, the school needs a universal teacher who holds on to humanistic values and who is able and willing to work with children with very complex needs. At the same time, the role of research skills is gaining more and more significance for the special education teacher since these skills help to solve daily professional tasks in order to organize the educational process in the most effective way. These skills also enable self-analysis and self-improvement. We believe that in order to develop research skills particular importance should be given not only to the professional aspect of education but also to the personal qualities of a teacher.

The students’ research activity will be successful provided that they are able to independently comprehend its importance as a vital value for them, have a diligent attitude to it and personal interest. Our task is to help the student understand this and "find" the right way to professional development.

Our research confirms the necessity to update the development and implementation of joint projects with educational institutions, to include the forms that activate personal, creative and research potential of Special Education students.

The results of our empirical study show that the professional "maturity" of students gradually increases from the second to the fourth year. During their teaching practice in educational institutions, students are convinced of how the ability to organize an experiment, the ability to develop various (individual) exercises for children with different opportunities makes a lesson or an extracurricular event more productive. Even if someone decided not to work in the chosen professional field, a vital experience of communication, the experience of empathy and experience of common joy becomes a valuable acquisition for them. Personal and creative development also takes place in the process of students’
involvement in the social, cultural and educational environment of the university through the students’ participation in various types of educational and social activities.

The obtained results allow us to recommend the implementation of the proposed open and dynamic procedural development model of a Special Education student into an expert researcher. In fact, it is a compact stage organization program of research activity for undergraduate Special Education students. We believe that the process of the model deployment and improvement is associated with a general reorientation of the educational process to the problem, project training education using active methods of work with the teacher in creative, interactive collaboration. The model focuses on students’ capabilities for professional growth and self-improvement.

References

Pavlova, N. V., & Sokolenko, G. V. (2016). Electronic and printed manuals as means of training students-defectologists and schoolchildren with disabilities. *Inclusion in education, 1*, 118-123.


Zimnyaya, I. A. (2010). *Research activities of students at the university as an object of design in a competence-oriented general educational program of higher professional education*. Moscow: Research Center for problems of quality of specialists training.