# Methodological Training of Special Education Teachers in Belarus: State and Development Strategies

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#### Abstract

The widespread dissemination of humanitarian ideas, integration and inclusive processes create new challenges for the professional education of special education teachers. The focus is on methodological training, the ability to work with different children, organizational and methodological heterogeneity. A new social order is the methodological competence of a specialist who does not have just knowledge and skills, but experience in effectively solving the pedagogical problems of students with special education needs. The aim of the article is to identify the state of the methodological competence of Belarusian future special education teachers (graduates of higher educational institutions), to see the features of the existing methodological training, to determine the main strategies for increasing its effectiveness at the national level. The leading method is self-assessment of students' state of methodological competence. The study involved 578 students from four Belarusian universities. The article describes the structure and content of future teachers' methodological competence (4th year students) in the context of the ability to implement the educational process in the new conditions of variable educational practice. The research materials allow us to see the problem areas of the existing practice of methodological training in Belarusian universities and to assess the possible directions of its modernization.

**Keywords**: teacher training, methodological training, methodological competence, special education teacher, higher education curriculum.

## Методическая подготовка учителей-дефектологов в Беларуси: состояние и стратегии развития

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#### Аннотация

Широкое внедрение гуманистических идей, развитие интеграционных и инклюзивных процессов предъявляет новые требования профессиональному образованию учителей-дефектологов. Особое внимание необходимо методической подготовке, формированию умений работать с неоднородными коллективами. Очевиден социальный заказ на компетентного специалиста, обладающего не только знаниями, но и опытом результативного решения педагогических задач в работе с разными категориями обучающихся с особыми образовательными потребностями. Цель исследования – выявить особенности существующей методической подготовки и основные стратегии повышения ее эффективности на национальном уровне. В исследовании приняли участие 578 студентов четырех белорусских вузов. Ведущий метод – оценка студентами-выпускниками своей методической компетентности. В статье анализируются также структура и содержание методической подготовки учителя-дефектолога, ее способность готовить будущего специалиста к осуществлению образовательного процесса в условиях вариативности. Полученные данные вскрывают проблемы существующей системы методической подготовки в белорусских вузах, а также открывают пути ее модернизации. Ключевые слова: педагогическое образование, методическая подготовка, методическая компетентность, учитель-дефектолог, учебная программа высшего образования.

## Introduction

The updating of the content of professional teacher training based on educational standards of generation 3+ is currently being carried out in the Republic of Belarus. This activity assumes the presence of clear requests and an understanding of the main approaches to the curricula design and teaching materials for the training of special teachers. The introduction of humanitarian ideas, the development of integration and inclusive processes stimulate new challenges to the professional education of special needs teachers. The focus of special attention is methodological preparation, the ability to work with children, heterogeneity in design and methodology (Gaidukevich, 2018; Gladun, 2018). Normative and educational documentation shows that in the Republic of Belarus, the question of preparation of special education teachers in terms of methodology for work in new conditions (especially at the first stage of higher education) is open. Being traditional, as well as focused on working with specific children's deficits, it forms certain competencies and provides pedagogical interaction as an exclusive practice (Gaidukevich, 2018).

Thus, the research problem is associated with the contradiction between the new requirements for the content and quality of special education teachers' methodological activities in a heterogeneous educational environment and the uncertainty of the strategy for updating their professional and methodological education.

## Purpose and objectives of the study

The research aim is to identify the state of methodological competence among the Belarusian future special education teachers (graduates of higher educational institutions), to reveal the features of the existing methodological training, to determine the main strategies for increasing its effectiveness at the national level.

## Literature review

Teacher education in Belarus is developing in a competence-based approach. The study of methodological training from the standpoint of its effectiveness shifts the emphasis to methodological competence.

Methodological competence as a pedagogical phenomenon is the unity of the general, special, and individual. This study is focused on general and special aspects. The general aspect implies the description and assessment of methodological competence as an integrative characteristic of a person. The special aspect include methodological capabilities of a teacher in the context of various practices of special (including integrated) and inclusive education. Current research studies actively discuss the problem of special education teachers' professional competencies: the requirements for their professional and personal qualities in new educational conditions (Aslaeva, 2011; Bazhukova, 2017; Ryabova & Karpunina, 2016); significant professional competencies for work in integrated and inclusive education (Bazhukova, 2017; Gaidukevich, 2018; Movkebaeva, 2015; Sergeeva, 2016). Methodological competence is also a subject of scientific research:

methodological competences as part of the professional competencies of special education teachers of a narrow subject matter (Gladun, 2016; Yakovleva, 2009); the problem of methodological competence for solving professional problems in a heterogeneous educational environment (Gaidukevich, 2018; Gladun, 2018). Obviously, there is a new social order for a competent specialist who provides pedagogical support to students, taking into account their special educational needs.

In this study, we define methodological competence as an integrative individual professional characteristic, the unity of cognitive, practical and personal experience, the ability to effectively solve various methodological problems based on the special educational needs of students (Gaidukevich, 2020). At the same time, we did not find studies devoted to the problem of teachers' methodological competence, where it is considered as an individual characteristic and an indicator of successful work in a changing educational environment; we did not find data on modern strategies for its development.

## Methodology

#### Research Methods and Techniques

In the research process, the following methods were used: theoretical (analysis, synthesis, generalization); empirical (self-assessment of students' state of methodological competence); mathematical methods (determination of average values, ranking); methods of graphic representation of the results.

## *Experimental base of the research*

The study involved 578 students from four universities of the Republic of Belarus, training special education teachers (Belarusian State Pedagogical University (Minsk), Grodno State University, Vitebsk State University, Mozyr State Pedagogical University): 4th year students (275) who completed methodological training, 2nd year students (303) who started methodological training. The research was conducted in 2018 - 2019.

## Research stages

The research was carried out in three stages.

The first stage is a theoretical analysis of scientific approaches to the study of the methodological competence of teachers, the creation of a scale for its assessment. We have identified the structure of methodological competence (cognitive, practical and personal experience), criteria and indicators for its assessment. Three criteria were used (Gaidukevich, 2020): orientation and goal-setting (characterizes cognitive experience, provides the ability to transform a pedagogical situation into a methodological task, find a way to solve it); technology and result (characterizes practical experience, makes it possible to solve a methodological problem); regulation and self-organization (characterizes personal experience, skills of self-organization of individual and professional self-change). To assess methodological competence, a five-level scale was proposed. Each level describes changes in components and skills in the composition of methodological competence: 1 - competence is not formed, components and skills are not presented; 2 - competence is represented only by cognitive experience; 3 - mainly by cognitive experience and occasionally practical experience; 4 - by cognitive, practical experience and episodically personal experience; 5 - by cognitive, practical, and personal experience.

The second stage is associated with the selection of methodological competencies for assessment. The study uses special education teacher's methodological major subject area: three groups of competencies (total 21 competencies). Competencies reveal the main functions of a teacher (designing the educational process, providing normative and methodological support of the educational process, developing an adaptive educational environment) in the context of special and inclusive education, as well as significant functions of methodological activity (analytical, prognostic, design, constructive) (Gaidukevich, 2019).

At the third stage, students assessed the state of their methodological competence using a rating scale, filled out self-assessment forms, and determined a place on the scale for each competence.

## Results

The study showed the students' ideas about the state of their methodological competence. Analysis of the distribution of students' choices according to the rating scale allows obtaining data either for groups of competencies and for each competence.

The state of prospective teachers' methodological competence in relation to groups of competencies is presented in Table 1. 4th year students assess their methodological competence as follows: competence is not formed - 1.7%, formed in the composition of all components (cognitive, practical and personal experience) - 12.6%, has an uneven development of structural components - 85.7%. In the latter case, the choices are divided almost equally: represented mainly by cognitive experience and episodic practical experience - 42.9%, represented by cognitive, practical and episodic personal experience - 42.8%. Thus, 98.3% of graduates' choices indicate the mastery of cognitive experience (the ability to define a methodological problem and find a solution), 55.4% - practical experience (the ability to solve a methodological problem) and only 12.6% - personal experience (the ability to self-organize personal and professional self-change).

Methodological competencies (groups)	Students	Distribution of students' opinions on the state of methodological competence according to an assessment scale (%)					
		1	2	3	4	5	
Competence in the field of organizing the correctional and educational process	4th year students	1,2	10,1	29,7	47,4	11,6	
	2nd year students	10,3	37,9	32,8	14,8	4,2	
Competencies in the field of providing normative and methodological support of the educational process	4th year students	2,5	11,4	26,8	42,6	16,7	
	2nd year students	16,9	40,5	29,3	10,4	2,9	
Competence in the field of creating an adaptive devel- oping educational environ- ment	4th year students	1,5	15,7	34,8	38,4	9,6	
	2nd year students	16,1	40,1	27,1	13,0	3,7	
$\Sigma$ Total	4th year students	1,7	12,5	30,4	42,8	12,6	
$\Sigma$ Total	2nd year students	14,4	39,6	29,7	12,7	3,6	

*Table 1. Self-assessment of methodological competence by future teachers-special educators (4th and 2nd year students)* 

The content of the methodological competence of 4th year students was studied using data from the 4th and 5th levels of the assessment scale (there are three components in the competence (cognitive, practical, personal)). The results of self-assessment reveal the following distribution of competencies: the ability to solve pedagogical problems in the field of organizing the correctional and educational process - 59%, in the provision

of normative and methodological support of the educational process - 59.3%, in the field of creating an adaptive developing educational environment - 48%. The ranking of competencies within groups shows that students highly appreciate their ability to analyze pedagogical interaction, determine goals for training sessions, adapt training materials, plan lessons (from 50% to 60% of the choices). At the same time, graduates rate their abilities to determine a strategy of special support for students on a diagnostic basis, to plan the educational process, to select adequate criteria and indicators for assessing students' academic achievements. They admit that they are not ready to select adequate criteria and indicators for assessing students' academic achievements, develop control materials for them, design an adapted educational environment, and organize a workplace for a student. These competencies receive a small number of elections from 30% to 40%.

The content of the competence of 4th year students in the context of the methodological activity functions was also studied using the data of the 4th and 5th levels of the assessment scale. The data are presented in Table 2.

*Table 2. Self-assessment of the ability to carry out methodological functions by future special teachers (4th year students)* 

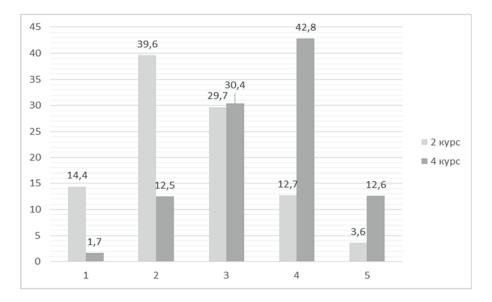
Methodological competencies (groups)	Competencies associated with significant functions of methodological activities (%)					
· · · · · · · · · · · · · · · · · · ·	analytical	prognostic	design	constructive		
Competence in the field of organizing the correctional and educational process	64,3	53,8	53,4	69,1		
Competencies in the field of providing normative and methodological support of the educational process	49,1	45,8	50,7	71,6		
Competence in the field of creating an adaptive developing educational environment	62,9	48,7	43,8	40,7		

Research data shows that graduates are more confident in their ability to solve constructive and analytical problems. They rate their experience in the field of forecasting and project methodological activity lower (from 27% to 17%). In the context of the methodological competencies groups, the following situation takes place: in the field of organizing the correction and educational process, students assess their constructive and analytical skills most highly; in the field of providing normative and methodological support of the educational process – constructive; in the field of creating an adaptive developing educational environment – analytical.

Comparison of the self-assessment data of 4th and 2nd year students made it possible to assess the dynamics of a positive change in the state of methodological competence during the period of professional training. The result of the comparative study is presented in Figure 1.

The results of the research show that the quality of methodological competence is improving among 4th year students. Most of the respondents (73.2%) are at the 3rd and 4th levels of the rating scale. However, low scores of the 5th level of the rating scale indicate the presence of serious problems with future special education teachers' methodological training.

Thus, future special education teachers do not give a high assessment of the state of their methodological competence. Most university graduates (4th year students) consider their readiness for methodological activity in the new educational environment insufficient.



*Figure 1. Dynamics of changes in the state of methodological competence among future special education teachers during the period of professional education* 

#### Discussions

Data on the state of methodological competence of 2nd and 4th year students make it possible to reveal some of the features of the existing experience in future special education teachers' methodological training.

The main problem is the uneven development of the methodological competence components. The existing training practice actively supports the cognitive experience of students. Students' assessments indicate that they more often formulate a problem, choose a way to solve it (accumulate methodological recipes), rather than implement the solution in practice in a specific educational situation. The process of mastering methodological competence in practice does not affect the development of students' personal structures. Future teachers demonstrate limited attention to personal experience in the methodological sphere; do not consider the ability for personal and professional self-development as a criterion for assessing their competence. They do not systematically analyze their feelings, motives; irregularly assess their methodological activity, the reasons for difficulties; do not set a task of self-change. In such a situation, students are unable to regulate and control the growth (positive changes) of their methodological competence.

The study records significant changes in the structure of methodological competence only for cognitive experience (the ability to analyze the learning situation and find a way to solve a pedagogical problem). This means that methodological training retains traditional features and does not ensure the development of methodological competence as an integrative individual professional characteristic in the interconnection of its structural components. University graduates are often the product of knowledge-based learning.

The content of methodological training is aimed primarily at developing students' ability to organize and implement the educational process (lesson and correctional classes). The focus in the training of future special education teachers is the ability to analyze pedagogical interaction, to determine its purpose, objectives, content (these competencies have the highest ranking positions both in 2nd and 4th courses). At the same time, technological skills: to select and adapt methods and techniques, teaching aids

(including technical ones), to create methodological compositions, taking into account the special educational needs of students, receive less attention (the ranking positions of these competencies are lower). The preparation of future specialists for such types of methodological activities as the development of strategies for pedagogical support of students, considering special educational needs, its long-term and short-term planning looks problematic (these competencies were received by less than 50% of the respondents). The direction of methodological training to provide teachers and parents with up-to-date information about the opportunities and needs of children is in the zone of particular risk (less than 40% of the participants received the ability to create such methodological recommendations). It should be noted that at the university, academic disciplines give priority to analytical and constructive methodological functions and occasionally focus on prognostic and design ones.

Thus, the content of the methodological training also retains its traditional character. It is focused on formal pedagogical interaction, which is based not on the student and their special educational needs, but on special curricula and programs.

## Conclusion

Obviously, the existing methodological training does not fully meet the modern needs of educational practice. Methodological education provides the ability of specialists to participate in special education than supports inclusive processes. Future special education teachers do not have sufficient methodological skills, they cannot solve various pedagogical problems in a heterogeneous educational environment on their own. The state of their competence indicates the need for a systematic modernization of methodological training and makes it possible to determine the strategic directions of this activity.

1. Formulate training goals as support for the equal development of cognitive, practical and personal components of competence, its integrity and high functionality; increasing the ability of students not only to successfully perform various pedagogical actions but also to manage their methodological practice, to construct its social and personal meaning in a variable, changing professional context.

2. Design content as competencies, methodological skills to transform pedagogical reality, taking into account students' special educational needs; to ensure its multifunctional characteristics, the ability of teachers to analyze, predict and design in the process of creating a variety of methodological tools.

3. To develop didactic tools and provide conditions for future teachers to accumulate their own methodological experience, the ability to solve real methodological problems in the professional context of special (including integrated) and inclusive education.

The results of the research can be used in the development of theoretical models for special education teachers' methodological training, curricula for the first stage of higher education.

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