Education Institution
«Belarusian State Pedagogical University named after Maxim Tank»

APPROVED
Vice-Rector for Academic Affairs
_____ A.V. Makovchik
_____ 2023
Registration No. УД 03-528-2023/ур

METHODOLOGY OF PEDAGOGICAL RESEARCH

Academic programme of the higher education institution for the specialties:

7-06-0111-01 Scientific and Pedagogical Activity;
7-06-0112-01 Preschool Education;
7-06-0112-02 Primary Education;
7-06-0113-01 Historical Education;
7-06-0113-02 Philology Education;
7-06-0113-03 Natural Sciences Education;
7-06-0113-04 Physical and Mathematical Education;
7-06-0113-06 Artistic and Aesthetic Education;
7-06-0114-02 Educational Management

2023

The academic programme was developed in accordance with the advanced higher education standard for the specialties: 7-06-0111-01 Scientific and Pedagogical Activity (31.05.2023 No. 163; 22.06.2023 No. 116-2023/ya.); 7-06-0112-01 Preschool Education (18.05.2023 No. 160; 23.02.2023 No. 068-2023/y.); 7-06-0112-02 Primary Education (18.05.2023 No. 160; 23.02.2023 No. 070-2023/y); 7-06-0113-01 Historical Education (18.05.2023 No. 160; 23.02.2023 No. 072-2023/y.); 7-06-0113-02 Philology Education (18.05.2023 No. 160; 22.06.2023 No. 117-2023/ya.); 7-06-0113-03 Natural Sciences Education (18.05.2023 No. 160; 23.02.2023 No. 076-2023/y.); 7-06-0113-04 Physical and Mathematical Education (18.05.2023 No. 160; 23.02.2023 No. 078-2023/y); 7-06-0113-06 Artistic and Aesthetic Education (18.05.2023 No. 160; 22.06.2023 No. 118-2023/ya.; No. 119-2023/ya.); 7-06-0114-02 Educational Management (18.05.2023 No. 160; 22.06.2023 № 120-2023/ya.)

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(Minutes No. 12 as of 04.04.2023)

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Scientific and Methodological Council of BSPU
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The format of the programme and accompanying materials corresponds to the current requirements of the Ministry of Education of the Republic of Belarus

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EXPLANATORY NOTE

The goal and objectives of the discipline

The goal of the academic discipline is the formation of competence among postgraduate students in the field of organization and conduct of scientific and pedagogical research, which ensures an effective solution to professional problems of pedagogical activity in an education institution.

The objectives of studying the discipline "Methodology of Pedagogical Research" are determined by the requirements for students to master in-depth scientific, theoretical, methodological knowledge and research skills in the field of methodological foundations of scientific and pedagogical research; logical structure and methods of scientific and pedagogical research; interpretation, approbation and presentation of the results of scientific and pedagogical research.

The place of an academic discipline in the system of training a specialist with higher education (master's degree).

The academic discipline belongs to the module "Methodology of Pedagogy" of the state component.

Relationship with other academic disciplines, including academic disciplines of the higher education component, specialization disciplines, etc. This programme is developed on the basis of the principle of continuity with exemplary curricula of the disciplines "Fundamentals of Psychology and Pedagogy" and "Pedagogy" for general higher education and is based on the competencies formed by students in the process of studying them. The formation of the universal competencies of master's degree students is carried out in a single logic with such academic disciplines as "Pedagogical Experimentation in Modern Socio-Cultural Environment" and a Research Seminar.

Requirements for the academic competencies

The study of the discipline ensures the formation of the following universal competence: to apply the methods of scientific knowledge in research activities, to generate and implement innovative ideas.

As a result of studying the discipline, master's degree students should:

know:

– tasks and functions of the methodology of pedagogy, its significance for pedagogical theory and practice;

– characteristics of the leading methodological approaches and principles of pedagogical research;

– the logic of scientific and pedagogical research;

– the structure and content of the competence of the teacher-researcher;

be able to:

- search, systematize and analyze information on the prospects for the development of education, innovative pedagogical technologies, projects and solutions;

- work with scientific literature;

- define the methodological characteristics of pedagogical research (topic, goal, tasks, object, subject, hypothesis, etc.);

- substantiate the provisions put forward in the study, based on philosophical, general scientific, specific scientific concepts and approaches;

- interpret and formalize the results of the study, evaluate them according to the criteria of scientific novelty, theoretical and practical significance;

- develop practical recommendations on the use of the results of scientific and pedagogical research;

master:

– forms and methods of scientific and pedagogical research;

– techniques of presentation of research results in the form of scientific reports and publications;

– methods and techniques of reflection and adequate self-assessment of one's own scientific research pedagogical activity.

Course structure

The discipline is studied in the first semester. In total, the study of the academic discipline "Methodology of Pedagogical Research" is designed for 96 academic hours for the full-time form of higher education (of which 34 hours are in-class work). Distribution of in-class hours according to the type of classes: lectures - 14 hours; seminars - 20 hours.

The study of the academic discipline "Methodology of Pedagogical Research" is designed for 96 academic hours for extramural higher education (of which 8 hours are in-class work). Distribution of in-class hours according to the type of classes: lectures - 4 hours; seminars - 4 hours.

The study load of the discipline is 3 credit units. The form of the current assessment is an **exam** in the first semester.

CONTENT OF THE EDUCATIONAL MATERIAL

Section 1. METHODOLOGICAL GROUNDS OF SCIENTIFIC AND PEDAGOGICAL RESEARCH

Topic 1.1. The concept of methodology of pedagogy

The essence of the concepts "methodology", "methodology of pedagogy". The history of the development of methodology of pedagogy. Tasks of methodology of pedagogy. Functions of methodology of pedagogy (critical and analytical, project and constructive). Forms of methodological knowledge (descriptive, prescriptive). Levels of methodology of pedagogy: philosophical, general scientific, specific scientific, technological.

Topic 1.2. Philosophical and general scientific levels of methodology of pedagogy

The main philosophical aspects of the study of pedagogical problems: ontological, epistemological, socio-historical, anthropological. Leading philosophical trends (neopragmatism, neopositivism, behaviorism, existentialism, dialectical materialism, postmodernism) as an ideological source for the development of the methodology of pedagogy. General scientific research approaches and concepts, their implementation in the process of solving pedagogical problems. A holistic approach to the study of pedagogical phenomena and processes. Understanding the individual as a whole. Aspect approach. The main aspects of the study of the pedagogical process (genetic, structural, functional, meaningful, operational). An integrated approach as the basis for interscientific and interdisciplinary integration in solving problems of education. Systems approach. The essence of the concept of "pedagogical system". Structural and functional components of pedagogical systems. Types of pedagogical systems. Synergetic concept, its methodological possibilities in the study of pedagogical systems and processes occurring in them.

Topic 1.3. Methodological approaches of specific scientific level in pedagogical research

Leading theoretical concepts in modern pedagogy, their application and development. Activity approach. The student as a subject of knowledge, labor and communication. Person-centered approach. Orientation in the design and implementation of the pedagogical process as a goal, subject, result and the main criterion for its effectiveness. Cultural approach. Education as the formation of a general and professional culture of the student's personality. Axiological approach. Formation of a value attitude towards society, nature, and oneself among students. Polysubjective, acmeological approaches. Professional-activity, professional-personal, contextual approaches as methodological foundations for scientific research in the field of vocational education.

Section 2. STRUCTURE AND METHODS OF SCIENTIFIC AND PEDAGOGICAL RESEARCH

Topic 2.1. Methodological principles of scientific research

Forms and methods of scientific knowledge in pedagogy. The concept of scientific research. Scientific and pedagogical research as a type of scientific research. Methodological principles of scientific research, their implementation in pedagogy. Principles of determinism. The principle of conformity. The principle of complementarity. The principle of economy. The principle of objectivity. The principle of science. The principle of taking into account the continuous change and development of the phenomena under study. The principle of the need to highlight the main factors that determine the results of the pedagogical process. The principle of unity of the logical and historical. The principle of conceptual unity of research. The principle of relying on interscientific and interdisciplinary communication. The principle of unity of research and practical pedagogical work. Forms of scientific knowledge in pedagogy: law, pattern, concept, theory, hypothesis, axiom, paradigm. Methods of scientific knowledge: observation, experiment, measurement, classification, systematization, description, statement, analysis, synthesis, induction, deduction, analogy, modeling, etc. Their essence and classification.

Topic 2.2. Logical structure of scientific and pedagogical research

Main methodological characteristics of scientific and pedagogical research. Research problem, its formulation. Research topic. Characteristics of the topic: relevance, perspective, novelty, problematics. Object, subject, purpose and objectives of the study, provisions submitted for defense. Idea, design and hypothesis as the theoretical core of the study. Types of hypotheses in pedagogical research: zero, descriptive, explanatory, basic working, prognostic, conceptual. Logic, scientific and pedagogical research. Methodological part of the study: definition of the problem, topic, object, subject, purpose and objectives of the study; choice of the initial concept, basic theoretical provisions; building a research hypothesis. Procedural part: development of the programme and research methodology; establishing the initial state of the subject of research; practical transformation; analysis, generalization, formulation of conclusions, development of practical recommendations; approbation and registration of research results; implementation of the research results in pedagogical practice and correction of further work. The concept of the research base. Justification in the structure of scientific and pedagogical research. Types and methods of justification.

Topic 2.3. Theoretical research methods

The concept of the method and methodology of research. Classification of methods of scientific and pedagogical research. Methods of theoretical research. Analysis of sources in scientific and pedagogical research. Content analysis and systematization of scientists' views on the problem under study. Historical-pedagogical and comparative-pedagogical analysis, their role and place in the study.

Modeling method. The concept of a model. Types of models. Features of the development of models in pedagogy. Design method. The concept of the project. Characteristics of project activity in pedagogical research.

Topic 2.4. Empirical research methods

Methods of empirical research in pedagogy. Biographical method. Observational methods: observation and self-observation. Types of observation, their characteristics. Stages of preparation and implementation of pedagogical supervision.

Diagnostic methods. Questioning. Types of questionnaires, types of questions in the questionnaire. Compilation and working with the questionnaire. Interviewing. Types of interviews. Interview Questionnaire. Research conversation. Testing. The technique of using diagnostic research methods, processing the information received.

Praximetric methods. Timing method. The study of the products of educational, labor, social activities of students, professional activity of teachers. Method of expert assessments. Study and generalization of pedagogical experience. Criteria for advanced and innovative pedagogical experience. Experimental research methods. Pedagogical experiment, its types. Artificial and natural experiment. Ascertaining, forming, control experiment in pedagogy. Experiment programme. Experienced work of the teacher, its differences from the experiment.

SECTION 3. INTERPRETATION, APPROBATION AND PRESENTATION OF THE RESULTS OF SCIENTIFIC AND PEDAGOGICAL RESEARCH

Topic 3.1. Mathematical methods in pedagogy

The value of mathematical methods in scientific and pedagogical research. Methods of registration, scaling, ranking. Methods of mathematical statistics. Basic concepts of mathematical statistics: the general population and its sample, frequency distribution, normal distribution. Statistical hypotheses. General principles for testing statistical hypotheses. Comparing the results of two dependent samples. Comparing the results of two independent samples.

Topic 3.2. Criteria for the success of scientific and pedagogical research

Criteria for evaluating the effectiveness of research search (education, good upbringing, motivation, individual and personal development, health protection, psychological comfort of the educational process participants), their diagnostics. Evaluation of the reliability of the results of the study. General requirements for the research methodology: reliability and validity of methods, accuracy, unambiguity, representativeness, diagnostic value. Criteria for the quality of research results: scientific novelty, theoretical, practical, economic and social significance. Implementation of the results of scientific and pedagogical research. Registration of an act on the practical use of research results.

Topic 3.3. Approbation and presentation of research results

The concept of approbation of research results. The main ways to bring the results of the study to the scientific community: participation in scientific and practical conferences and scientific and methodological seminars; scientific publications; speeches of the researcher (lectures delivery, scientific reports); defense of a report, project, dissertation.

The main types of publications of the results of pedagogical research: scientific article, monograph. Requirements for a scientific article. Review, its structure and content. Dissertation, dissertation abstract. Master's thesis: requirements for the structure, content and design, organization of training and defense. Scientific report, its structure, content, preparation methodology. Requirements for logical presentation and the language of presentation. Use of technical means. Development of an electronic presentation for the report.

EDUCATIONAL AND METHODOLOGICAL CHART OF THE DISCIPLINE
"METHODOLOGY OF PEDAGOGICAL RESEARCH"
(full-time education)

No. of section, topic	Topic name	Number of in-class hours		Self-study of master's degree students	Forms of assessment
		Lectures	Seminars		
1.	**Methodological grounds of scientific and pedagogical research**	**6**	**6**	**18**	
1.1.	The concept of methodology of pedagogy	2	2	6	Answers to the key questions of the lecture. Drawing up a basic lecture diagram (mental map). Solving competence / heuristic tasks
1.2.	Philosophical and general scientific levels of methodology of pedagogy	2	2	6	Blitz-survey on the key issues of the lecture. Formation of a "bank of ideas" during a brainstorming session in order to clarify methodological approaches for a specific master's study
1.3.	Methodological approaches of specific scientific level in pedagogical research	2	2	6	Blitz-survey on the key issues of the lecture. Formation of a "bank of ideas" during a brainstorming session in order to clarify methodological approaches for a specific master's study
2.	**Structure and methods of scientific and pedagogical research**	**6**	**8**	**24**	
2.1.	Methodological principles of scientific research. Forms and methods of scientific knowledge in pedagogy	2	2	6	Blitz-survey on the key issues of the lecture. Formation of a "bank of ideas" in the course of a brainstorming session in order to clarify the methodological principles for a specific master's study
2.2.	Logical structure of scientific and pedagogical research	2	2	6	Blitz-survey on the key issues of the lecture. Collective reflection of abstracts (master's theses).
2.3.	Theoretical research methods	2	2	6	Blitz-survey on the key issues of the lecture. Collective reflection of abstracts (master's theses). Content analysis of sources. Development of a pedagogical model.

2.4.	Empirical research methods		2	6	Drawing up a plan of conversation (interview). Development of a questionnaire, Justification of the expediency of choosing research methods in a particular master's study.
3.	**Interpretation, approbation and presentation of the results of scientific and pedagogical research**	**2**	**6**	**20**	
3.1.	Mathematical methods in pedagogy		2	10	Solving applied statistical problems to test the results of a master's study.
3.2.	Criteria for the success of scientific and pedagogical research	2	2	6	Blitz-survey on the key issues of the lecture. Collective reflection of abstracts (master's theses). Development of a mental map "Criteria for the success of a master's study."
3.3.	Approbation and presentation of research results		2	4	Development of plans-prospects for master's theses, acts of implementation of research results, scientific reports and presentations for the preliminary defense of the dissertation.
	Total	**14**	**20**	**62**	

EDUCATIONAL AND METHODOLOGICAL CHART OF THE DISCIPLINE
"METHODOLOGY OF PEDAGOGICAL RESEARCH"
(extramural form of education)

No. of section, topic	Topic name	Number of in-class hours		Self-study of master' s degree	Forms of assessment
		Lectures	Seminar classes		
1.	**Methodological grounds of scientific and pedagogical research**	**1**		**30**	
1.1.	The concept of methodology of pedagogy			10	Answers to the key questions of the lecture. Drawing up a basic lecture diagram (mental map). Solving competence / heuristic tasks
1.2.	Philosophical and general scientific levels of methodology of pedagogy			10	Blitz-survey on the key issues of the lecture. Formation of a "bank of ideas" during a brainstorming session in order to clarify methodological approaches for a specific master's study
1.3.	Methodological approaches of concrete-scientific level in pedagogical research	1		10	Blitz-survey on the key issues of the lecture. Formation of a "bank of ideas" during a brainstorming session in order to clarify methodological approaches for a specific master's study
2.	**Structure and methods of scientific and pedagogical research**	**2**	**3**	**32**	
2.1.	Methodological principles of scientific research. Forms and methods of scientific knowledge in pedagogy			10	Blitz-survey on the key issues of the lecture. Formation of a "bank of ideas" in the course of a brainstorming session in order to clarify the methodological principles for a specific master's study
2.2.	Logical structure of scientific and pedagogical research	1	1	6	Blitz-survey on the key issues of the lecture. Collective reflection of abstracts (master's theses).

2.3.	Theoretical research methods	1	1	8	Blitz-survey on the key issues of the lecture. Collective reflection of abstracts (master's theses). Content analysis of sources. Development of a pedagogical model.
2.4.	Empirical research methods		1	8	Drawing up a plan of conversation (interview). Development of a questionnaire. Justification of the expediency of choosing research methods in a particular master's study.
3.	**Interpretation, approbation and presentation of the results of scientific and pedagogical research**	**1**	**1**	**26**	
3.1.	Mathematical methods in pedagogy			10	Solving applied statistical problems to test the results of a master's study.
3.2.	Criteria for the success of scientific and pedagogical research	1		8	Blitz-survey on the key issues of the lecture. Collective reflection of abstracts (master's theses). Development of a mental map "Criteria for the success of a master's study."
3.3.	Approbation and presentation of research results		1	8	Development of plans-prospects for master's theses, acts of implementation of research results, scientific reports and presentations for the preliminary defense of the dissertation.
	Total	**4**	**4**	**88**	

INFORMATION AND METHODOLOGICAL SECTION

List of basic literature:

1. Снопкова, Е. И. Методология и методы педагогического исследования / Е. И. Снопкова, Е. А. Ярошевич. – Могилев : Могилев. гос. ун-т, 2019. – 208 с.

List of additional literature:

1. Бережнова, Е. В. Основы учебно-исследовательской деятельности : учеб. пособие / Е. В. Бережнова, В. В. Краевский. – 10-е изд., стер. – М. : Академия, 2015. – 124 с.

2. Жук, А. И. Методология исследования взаимодействий теории и практики образования в условиях обновления тезауруса педагогики / А. И. Жук, А. В. Торхова, О. Б. Даутова // Вес. БДПУ. Сер. 1, Педагогіка. Псіхалогія. Філалогія. – 2021. – № 2. – С. 6–10.

3. Жук, О. Л. Актуальные направления развития образования и научно-педагогических исследований в условиях цифровой трансформации / О. Л. Жук // Педагогика. – 2020. – № 3. – С. 5–14.

4. Жук, О. Л. Организация научно-педагогических исследований по проблеме формирования функциональной грамотности и компетенций / О. Л. Жук // Выш. шк. – 2022. – № 4. – С. 3–7.

5. Жук, О. Л. Условия обеспечения качества научно-педагогических исследований / О. Л. Жук // Выш. шк. – 2022. – № 3. – С. 11–15.

6. Загвязинский, В. Методология и методы психолого-педагогического исследования : учеб. пособие / В. Загвязинский, Р. Артаханов. – 6-е изд., стер. – М. : Академия, 2010. – 208 с.

7. Кадол, Ф. В. Концептуальные особенности научной разработки проблем воспитания / Ф. В. Кадол // Адукацыя і выхаванне. – 2015. – № 5. – С. 29–36 ; № 6. – С. 39–45.

8. Краевский, В. В. Методология педагогики: новый этап : учеб. пособие для студентов вуза / В. В. Краевский, Е. В. Бережнова. – 2-е изд. – М. : Академия, 2008. – 400 с.

9. Лазарев, В. С. О методологических и методических проблемах достоверности и доказательности в педагогических исследованиях / В. С. Лазарев, Н. Д. Подуфалов // Педагогика. – 2022. – № 9. – С. 5–18.

10. Мардахаев, Л. О методологии диссертационного исследования / Л. Мардахаев // Alma Mater. – 2007. – № 6. – С. 28–32.

11. Новиков, А. М. О предмете и структуре методологии / А. М. Новиков, Д. А. Новиков // Мир образования – образование в мире. – 2008. – № 1. – С. 29–40.

12. Новиков, Д. А. Методология: словарь системы основных понятий / Д. А. Новиков, А. М. Новиков. – М. : Либроком, 2013. – 208 с.

13. Новиков, Д. А. Статистические методы в педагогических исследованиях (типовые случаи) / Д. А. Новиков. – М. : МЗ-Пресс, 2004. – 65 с.

14. Образцов, П. И. Методы и методология психолого-педагогического исследования / П. И. Образцов. – СПб. : Питер : Питер принт, 2004. – 268 с.

15. Систематика терминологического аппарата педагогики в условиях парадигмальных изменений как фактор обновления содержания педагогического образования / А. И. Жук [и др.] ; под науч. ред. А. В. Торховой, О. Б. Даутовой. – Минск : Белорус. гос. пед. ун-т, 2019. – 308 с.

16. Чечет, В. В. Положения диссертации, выносимые на защиту: специфика структуры и содержания / В. В. Чечет // Адукацыя і выхаванне. – 2015. – № 9. – С. 59–62.

17. Шадриков, В. Д. О направлениях повышения качества диссертаций по педагогике / В. Д. Шадриков, Н. Х. Розов, А. В. Боровских // Высш. образование в России. – 2016. – № 3. – С. 53–60.

Diagnostic tools

Complex problem situations, topical heuristic or competency-based tasks are effective means of developing and diagnosing the competencies of undergraduates. In this regard, **the following forms and means can be used to diagnose the formation of students' competencies:** resolving problem situations, solving heuristic or competency-based tasks, performing practical, creative tasks and presenting the results; rating assessment of knowledge, etc.

Diagnostic requirements

The procedure for diagnosing the formation of students'competencies includes the following steps: determining the object of diagnostics; revealing the fact of educational achievements of a master student with the help of criteria-oriented tests and other diagnostic tools; measurement and evaluation (using a rating scale) of the degree of compliance of educational achievements with the requirements of the educational standard. The assessment of the educational achievements of the students in the learning process is carried out with the help of a ten-point scale. To assess the educational achievements of students the criteria approved by the Ministry of Education of the Republic of Belarus and BSPU are used. To diagnose competencies it is pedagogically expedient to identify three levels of their formation, for example: basic, intermediate and advanced. The main criterion for the development of universal and in-depth professional competencies among students is the formation of the ability to use generalized methodological knowledge and research skills to solve various levels of complexity of professional and pedagogical tasks. The tasks differ in the degree of problematic content and the level of independence of the heuristic (or research) activity of the students in the search for a solution. In this regard, the following classification of tasks can be used: typical, problem, research. The basic level of manifestation of psychological and pedagogical competencies is assessed:

- 1-2 points – a master student solves some typical problems and does not solve problematic and research problems;
- 3-4 points – a master student solves most typical problems, solves some problematic problems and does not solve research problems. The average level of formation of psychological and pedagogical competencies can be assessed:
- 5-6 points - a master student confidently solves typical problems, solves most problematic problems, solves some research problems;
- 7-8 points - a master student freely solves typical and problematic tasks, solves most research problems. The advanced level of development of psychological and pedagogical competencies can be assessed:
- 9-10 points - a master student freely solves problems of all levels of complexity.

Indicators when scoring for solving heuristic, competence-based tasks in psychological and pedagogical disciplines can be: scientific character - operating with psychological and pedagogical concepts, categories; support in response to the scientific provisions of pedagogical science, methodological approaches and

pedagogical patterns, principles; reliance on the experience of the student - when constructing an answer, the use, mainly, not only of personal (in the sense of everyday) experience, but also of experience enriched with scientific meanings; at the same time, reinforcement of the answer with examples from life is allowed; clarity, reasoning, completeness of the answer; this takes into account the level of proof of the personal point of view of the students based on psychological and pedagogical concepts, data and facts from statistical collections, the provisions of the legal framework, etc.; the use of additional literature, the Internet with a mandatory reference to the source (preference is given to scientific publications (dissertations, monographs, articles, etc.)).

When forming the **final grade**, a rating assessment of the students' knowledge is used, which makes it possible to trace and evaluate the dynamics of the process of achieving learning goals. The rating assessment provides for the use of weight coefficients for the current control of knowledge and skills and the current certification of students in the discipline.

Approximate components of current control:

1) activity at the training session - 5%;

2) doing a competence task (performing a heuristic task) - 10%;

3) participation in the formation of a "bank of ideas" during the brainstorming - 10%;

4) individual and collective reflection on the solution of applied statistical problems - 15%;

5) development of a plan-prospect of a master's thesis - 25%;

6) development of diagnostic research tools (questionnaires, pedagogical tests, assignments and tasks, etc.) - 35%.

The assessment for current performance is 50%, the assessment for an exam - 50%.

List of exam questions

1. The concept of methodology of pedagogy. Tasks, functions of methodology of pedagogy.
2. Types and levels of pedagogical research.
3. Levels of pedagogical research methodology, their characteristics.
4. Aspect, holistic, integrated approaches in pedagogical research.
5. Implementation of a systematic approach to the study of pedagogical processes and phenomena.
6. Activity and personal approaches to training and education.
7. Culturological and axiological approaches to the development of problems of pedagogy.
8. Methodological approaches to research in the field of vocational education.
9. Competence-based approach as a methodological basis of modern education.
10. Competence model of a teacher-researcher, its components.
11. Forms of scientific knowledge in pedagogical research.
12. Methods of scientific knowledge: essence and brief description.
13. Methodological principles of pedagogical research.
14. Logical structure of pedagogical research.
15. Defining the research problem. Definition of the topic, purpose and objectives of pedagogical research.
16. Object and subject of pedagogical research.
17. Hypothesis in pedagogical research.
18. The concept of the method and methodology of research. Classification of methods of pedagogical research.
19. Development of the programme and methods of pedagogical research. Requirements for the research methodology.
20. Characteristics of theoretical research methods in pedagogy.
21. Characteristics of the methods of empirical research in pedagogy.
22. Theoretical analysis and synthesis as methods of pedagogical research.
23. Methods of working with sources in pedagogical research.
24. Modeling as a research method in pedagogy.
25. Method of observation, its essence, types, procedure of implementation and recording of results.
26. Methods of questioning and interviewing in pedagogical research.
27. Analysis of the products of educational activities of students and professional activities of teachers.
28. The study of pedagogical experience as a research method.
29. Experiment as a method of pedagogical research. Types and programme of the experiment.
30. Mathematical methods in pedagogical research.
31. Implementation of the results as the final stage of pedagogical research.
32. Criteria for the quality of the results of pedagogical research.
33. Approbation of the results of pedagogical research.

34. Publication of the results of pedagogical research. Requirements for a scientific article.

35. Dissertation, dissertation abstract. Requirements for a master's thesis.

36. Scientific report. Presentation of the report.

INTERDISCIPLINARY COMPLIANCE OF THE ACADEMIC PROGRAMME IN THE ACADEMIC DISCIPLINE "METHODOLOGY OF PEDAGOGICAL RESEARCH"

The educational discipline to be complied with	Department	Proposals for changes in the content of the academic programme of the higher education institution in the educational discipline	The decision made by the Department that has developed the academic programme (with the date and the minutes number)
Pedagogical Experimentation in Modern Socio-Cultural Environment	Department of Pedagogy	No proposals	Minutes No. as of May 05, 2023