DEVELOPMENT OF THE RESEARCH COMPETENCE OF THE FUTURE PRIMARY SCHOOL TEACHER

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ABSTRACT

In the framework of the competency-based approach, the modern system of higher education is aimed at teaching the future teacher how to search and process (structure) information through independent research. Such a development vector requires the targeted development of a future teacher of research competence.

Keywords: Teacher, primary school, development of research competence, motivational component.

INTRODUCTION, LITERATURE REVIEW AND DISCUSSION

Speaking about research competence, we rely on two basic concepts that are the basis for disclosing the definition of "research competence": a competency-based approach and competence.

In the understanding of D.A. Ivanov, the competency-based approach is defined as an attempt to bring the mass school and the needs of the labor market in line, an approach that focuses on the result of education, and the result is not the amount of learned information, but the person's ability to act in various situations. A. Andreev notes that the main intention (the orientation of thinking as an object) of the competency-based approach is the strengthening of the practical orientation of education. VA Bolotov defines a competency-based approach as a generalized condition for a person's ability to effectively act outside of training subjects and situations [2].

Turning to the concept of "competence", we single out a number of authors who fully disclose this concept. E. Zeer, E. Symanyuk define competencies as the integrative integrity of knowledge, skills and abilities that ensure professional activity, as a person's ability to put into practice his competence. They note that the structure of competencies is not limited to activity components (knowledge, abilities and skills), but also includes a motivational and emotional-volitional component, and an important component is experience - integration into a single whole of a person's acquired individual actions, methods and techniques for solving problems [3]. A. Khutorskoy believes that competence is a set of interconnected personality traits (knowledge, abilities, skills, methods of activity), defined in relation to a certain circle of objects and processes and necessary to act in a qualitatively productive manner in relation to them [4].

Summarizing the distinguished concepts, we conclude that the competency-based approach is nothing more than a practice-oriented training, which includes the ability to act and solve problems not within the educational process, but in the process of professional activity. In turn, competence is what can be described as the ability of a person to direct his knowledge, abilities and skills into practical channels, outside of training situations.

The research competence, in the understanding of MB Shashkin and AV Bagachuk, has an integrative personality profile, which involves the possession of methodological knowledge, research technology, recognition and willingness to use them in professional activities, characterized by a stable motivation [5]. EF Zeer in his study identifies the structure of research competence, which includes the motivational, cognitive, activity, reflective components [6].

The interpretation of EF Zeer of each of the components of research competence is as follows: the motivational component is a combination of cognitive motivation (curiosity, the desire to discover new knowledge), professional motivation (the desire to learn one's profession and get results), and achievement motivation (desire to improve one's professional activity, strive for success). The cognitive component is the totality of acquired knowledge that is necessary when performing research activities, which include basic knowledge (theoretical and methodological foundations) and process knowledge (research methodology). The basis of the activity component is, first of all, research skills: skills to navigate in the subject area of research; problematization, that is, the ability to identify and understand the problem of the question of research; research planning; collection, analysis and interpretation of data during the study. The reflexive component is the ability to analyze the results of one's activity, and the ability to value the product of one's activity [7].

An analysis of the components of research competence has led us to a shorter interpretation of each component. Research competency includes four components: motivational, cognitive, activity-oriented and reflective. The full combination of all four components leads to the active development of research competence.

Let us take as a basis the approach proposed by Professor E.A. Mogilevkin that a set of certain competencies may constitute a person's competency, which allows him to successfully cope with certain activities. Further we will talk about research competence as a set of competencies that allows us to successfully master research activities and develop in this direction.

Lukashenko S.N. explains that research competence is "an integral quality of a person, expressed in readiness and ability to independently solve research and creative tasks, owning the technology of research activities, recognizing the value of research skills and their willingness to use them in professional activities". It is determined by analytical and research competencies [8].

Initially, there was a need for a clear differentiation of terminology, as a number of scientists use the concept of "research activity" in scientific works, others use "research activity". A more detailed analysis of these concepts revealed that the terms are used to designate identical types of activities. So, I.Yu. Danilova in the article "Analysis of students' research activity" defines research activity as "a type of intellectual and creative activity generated as a result of functioning of search activity mechanisms and built on the basis of research behavior" [2]. N.V. Sokolovskaya in her report "Scientific research activities of students" writes that this type of activity "is connected with the students solving a creative, research problem with a solution unknown in advance ... and research in the scientific field, nominated based on the traditions accepted in science: statement of the problem, study of theory, devoted to this issue, the selection of research methods and practical mastery of them, the collection of their own material, its analysis and generalization, own conclusions "[10, p.2].

Also I.Yu. Danilova explains that research involves not only the search for information related to a particular problem, but also predicting the development of the situation on the basis of a

preliminary analysis of the collected information and results [2]. Consequently, the concept of research activity is broader than the concept of research activity. Also, the term "research activity" is used in the text of modern educational standards [1, p.4].

In the future, the goals of research activities at different stages of training were analyzed. A.V. Maksimova claims that with the implementation of this type of activity, the development of a creative personality takes place, as well as its self-determination, and as a result, self-realization [9]. In more detail and in depth describes the purpose of scientific research N.V. Sokolovskaya, who sees the goal "in acquiring the functional skill of research as a universal way of mastering reality, developing the ability for a research type of thinking, activating the personal position of students in the educational process based on the acquisition of new knowledge by the subject ..." [10, p.2-3].

I.A. Tyutueva in the article "The Problem of Scientific Research Activities of Students at a Higher Education Institution" also suggests that research activities contribute to the formation of current search, transformation and information production strategies for students that are relevant to the current stage of development of science, the development of research methods, and also the formation of one's own view of a particular problem and the manifestation of creative thinking abilities within the framework of one's professional activity [1].
Since at the initial level of obtaining a higher professional education, the application and carrying out of research activities is completely impossible, the research activity can be referred to as educational research, as it has a simulative nature.

I.A. Tyutueva discloses in more detail the substantive side of educational research activity, systematizing the tasks performed during this type of research:

1. Students' independent mastering of the conceptual and ideological apparatus.

2. Students' independent knowledge of the algorithms of the processes of the phenomena studied.

3. Students self-mastering the concepts of research work on a topic of interest.

4. The teacher is a mentor and consultant.

5. Independent familiarization by students with productive well-known methods of researching problems in this area.

6. Self-planning, identification of aspects and identification of potential research results.

7. Independent observation, description of the research process itself and the application of the selected methodology in practice.

8. Students' independent use of various search technologies and the interpretation of research results [1].

Thus, solving the above problems in the course of his research, the student develops the ability to work independently with research material, expands the conceptual apparatus in the professional sphere, develops his point of view on the research problem and methods for solving it, broadens the professional horizons, acquires and improves skills related to search, processing, transformation and creation of new information.

A.V. Maksimova identifies the required stages when conducting research: the choice of research topic; highlighting the problem; setting goals and objectives of the study; acquaintance with literature (including Internet resources); choice of research methods, experiment planning; researching; formulation of conclusions; report design and presentation of the study; job protection [9].

In accordance with the above stages of scientific research, formed skills are distinguished. When choosing a research topic, the student should first of all identify any contradictions, on

the basis of which the subject and object of the research work are determined. Highlighting the purpose and objectives of the study, students are faced with the need for independent planning of the stages of the study. The ability of self-correction, the use of recognized and private methods in the study are developed in the course of working with literature on the topic of the study, as well as when working with Internet sources. The choice of research methods, and as a consequence, the use in the practical part of the work, requires the student to objectively evaluate the material received, consistent as well as abstract thinking. In the practical implementation of the study, it is necessary to organize the collection of material with subsequent analysis of the result and further systematization of information. Further, when summing up the results, the student needs to concisely and sequentially state the results in the form of conclusions. At the stage of registration of work and presentation materials, the student must show knowledge in the field of design standards, as well as a creative approach to creating a presentation. Protection of a research work requires the student to show a sense of responsibility, ability to speak oratory, as well as a reasoned presentation of the accepted point of view [9, p. 3-4].

In turn, the described stages of research activity, as well as the formed skills and abilities are common to research in all types of scientific disciplines.

The specifics of the research activities of the future teacher is that the graduate must be able to conduct research and monitoring services at school; apply various research methods in the framework of their professional activities; as well as adapt the capabilities and use the potential of innovative technologies to the specifics of work in elementary school.

The next stage in the development of research competence is its assessment. This stage is the most problematic due to the ambiguity of opinions in the scientific world on this issue. I.Yu. Danilova gives a number of criteria by which it is possible to assess the degree of formation of research competence: the completeness of scientific research; the formation of system-activity thinking; depth of research; academic degree; degree of practical use; degree of investment attractiveness.

Moreover, the author does not directly identify quantitative assessment scales, which increases the likelihood of a subjective assessment of research work. This fact is especially critical for our study, as a result of which it seems necessary to turn to the studies of other authors.

In the work of I.V. Tick-borne "Assessment of the effectiveness of students' research activities" provides the most objective and accurate methods for assessing the formation of research competence. The author, relying on the provisions of the Federal State Educational Standard of Higher Professional Education, positions the research activity, and, consequently, the formed competence, as an obligatory component of not only professional activity, but also as an element of a person's life style in the modern information society [8, p 5.]. As subcompetencies I.V. Kleshcheva distinguishes the following:
- ability to perceive, process and transform information;
- consistency and consistency in speech, both written and oral;
- willingness to collaborate with colleagues;
- desire for self-development, self-education, self-improvement;
- ability to self-criticism and introspection, decision making and planning [8,p.5].

According to the author, these sub-competencies are formed and developed as part of practical research activities. Also I.V. Kleshcheva especially notes the role of the student's

independent work on research. This feature is also recorded in modern educational standards in the requirements for the organization of independent activities of students [8, p.5].

Further, Kleshcheva identifies the goals of research activities in the formation and development of the following skills: skills of independent activity within the professional sphere; skill of creative thinking.

And also in:
• unity of educational, upbringing and educational processes;
• creating conditions for successful and equal participation of students in this type of activity [8, p.6].

The development of students' research competencies, as well as any other personality traits, requires, first of all, solving the question of what constitutes the concept under consideration, what its content and essence are. In this regard, we consider below the question of what is the essence and content of the concept of "research competencies" in relation to students of higher education.

Among one of the first pedagogical works in which the problem of competencies was mentioned, S.E. Shishova, V. A. Kalnei, published in 1999 [2]. In it, the authors made a successful attempt to summarize the long-term experience of their cooperation with the Council of Europe, participation in international programs of the European Union "Management in education: management of the quality of education".

Competence is a qualitatively different level of knowledge and skills that allows a person to transfer known knowledge and skills to a new situation that differs from training situations in which knowledge and skills were formed. A person with competence is able, based on an analysis of the real situation, to identify the problem, establish what knowledge and skills are needed to solve it, actualize these knowledge and skills (and in the absence of them, find the necessary new knowledge) and take specific actions to apply them to solve the problem .

All key competencies are distinguished by: multifunctionality, which allows solving various problems in everyday professional or social life; subject-matter and interdisciplinarity, due to which they are easily portable in various situations; high requirements for intellectual development (abstract thinking, self-reflection, self-esteem, critical thinking, etc.); multidimensionality, that is, the presence of a personality of developed mental processes and intellectual skills (analytical, critical, communicative, etc.).

Consider the structure of key competencies. I. A. Zimnaya the five components are considered mandatory components of key competencies: positive motivation (willingness); value-semantic attitude to the content and result of activity (value-semantic aspect); knowledge underlying the choice of the way to carry out the corresponding activity (cognitive aspect); ability, experience (skill) to successfully carry out the necessary actions based on existing knowledge (behavioral aspect); emotional-volitional self-regulation [5, p. 26].

Tikhonenko A. V. identifies four components by adding another social component to the three above (ability and willingness to meet the requirements of a social order for a competent specialist)

The process of developing the research competence of an individual is planned from the moment of schooling, so that training sessions contribute to the acquisition of skills by students to independently organize the search for the necessary information (answers) to the questions

posed. That is, during the period of schooling, students learn to independently analyze the facts, generalize and draw logical conclusions, based on the information received and studied.

Depending on the age of the student, the functions of development of research activity, in the future, and research competence are formed.

For a university student, in turn, the presence of research competence is very important. In the process of mastering knowledge in the educational process, he often encounters a research environment. Various essays, control, laboratory and term papers, graduation projects, scientific works - these are some of the options for research activities. When performing research activities, the student learns to clearly see the research problem, analyzes the known and the unknown, and on the basis of analysis puts forward his subjective hypothesis to solve any problem and substantiates it.

In the learning process, the student must create the conditions for the further development and maintenance of the development of research competence. IN AND. Andreev highlights the principles that correspond to the formation of research competence.

1. The principle of consistency. Training material must be complete and sufficient; content structuring into component parts should be carried out taking into account the interconnections between them, and it is also necessary that the content of students' research competence development is integrated with the content of various curriculum disciplines, be developed taking into account the corresponding interdisciplinary connections.

2. The principle of modularity. It is necessary to divide the material into relatively independent, logically completed structural parts, taking into account the interconnections between them, and also to supplement the material with methodological recommendations for mastering the content, aimed at enhancing the students' independent work with the material.

3. The principle of professional orientation. It is necessary to prefer material that reveals the role of research in the future profession and can be implemented in conditions close to professional research in the professional field.

4. The principle of creative activity. The selection of educational material, which creates a field for active educational activity and stimulates creative thinking, is aimed at supporting and developing subjectivity among students, and also teaches students how to successfully overcome situations of uncertainty during professional research activities [9].

Based on the theoretical analysis, we can conclude that research competence is a set of research activities, a person's readiness for effective educational and research activities, active cognitive activity in order to search for knowledge to solve problems. Research competency includes four components (motivational, activity-based, reflective and cognitive), which are interconnected and complementary.

The functions of developing research competence depend on the age of the individual. The starting point for the development of research competence is preschool education. For university students, the presence and maintenance of the development of research competence is important. Development takes place according to the principles of systematicity, professional orientation, modularity and creative activity.

Research competency includes a set of other, narrower competencies aimed at the development of various fields of activity and human personality. Schematically, we present a set of competencies that are part of the structure of research competence. The structure of research competence includes the following competencies: value-semantic, general cultural,

educational-cognitive, communicative, social and labor, informational, competences of personal improvement.

Value-semantic competences - the ability to see and understand the world around us, realizing our role and our mission in this world, as well as the ability to choose a goal and semantic settings for our actions and deeds. The competence of personal self-improvement is to know the methods of physical, spiritual and intellectual self-development, emotional self-regulation and self-support. General cultural competencies are the ability to navigate independently in various areas of social and professional life, in the space of culture, the ability to independently find ways to solve the problem. Social and labor competencies are the ability of an individual to interact with social institutions, perform social functions, and also orient himself on the labor market. Educational and cognitive competencies are the sphere of independent cognitive activity. Information competencies - possession of modern media, analysis, selection of necessary information, its transformation, storage and transmission. Communicative competencies are the activities of the participants in communication, during which a general view of things and actions with them is developed [10].

The educational process in the university is aimed at developing students with both general cultural (OK) and professional competencies (PC). In order to single out the basic student OK, consistent with research competence, for example, we analyze the competency model of a future primary school teacher.

After analyzing the competency model, we see that the student must be able to systematize information; Highlight important structural elements in the text; be able to analyze tex and information; be able to apply cognitive abilities in solving scientific problems; be able to work individually and in a group; own multimedia technology; strives to learn at least one foreign language.

The analysis of the model of general cultural competencies makes it possible to highlight the basic pedagogical technologies for the development of research competence.

To develop research competence, it is proposed:

1. Modular training, which includes independent work of students with an individual curriculum. The training mechanism in the framework of such a program consists of search methods, statement of cognitive tasks.

2. Game training, which includes independent cognitive activity aimed at the search, processing and assimilation of information. The mechanism of work is involvement in creative activity.

3. Training in the development of critical thinking, which includes the ability to raise new questions, develop a variety of arguments, and make independent, informed decisions. Learning mechanism - interactive teaching methods, including involvement in various activities, compliance with the stages of technology implementation: challenge, comprehension, reflection.

4. Research and project training, which includes the organization of search cognitive activity by setting cognitive and practical tasks that require independent work. Learning mechanism - setting research objectives.

Concretizing the teaching technologies, we can distinguish the teaching methods in accordance with the components of research competence, which are reflected in table 2.

Table 2: Learning methods aligned with research competency components

Research Competency Component	Method	Concretization of the method
Motivational	Training programs	Training to increase personal motivation to achieve the goal
Cognitive	Business games, role-playing games, cases	"Debate", "Round Table", "Brainstorming", professional cases, etc.
Active	Analytical work, participation in conferences, symposia	Works with scientific texts, articles. Collection and analysis of information, description, synthesis, writing of scientific articles together with the supervisor
Reflective	Description of your achievements and career development options	Making a personal career plan

Analyzing the studied material, we can conclude that research competence is a combination of personality traits, implying the possession of research knowledge and skills. The structure of research competence includes four components: motivational, cognitive, active, and reflective. Research competency includes a number of more generalized competencies (value-semantic, personal growth, general cultural, social and labor, educational, cognitive, communicative, informational).

Based on the analysis of the competency model of a university graduate, we identified general cultural competencies that characterize research competence in the aggregate, using the example of the primary education and sports educational work training area.

Summarizing the theoretical analysis of scientific sources, we identified pedagogical technologies and specific teaching methods, which, when introduced into the educational process, will contribute to the development of research competence.

REFERENCES

1. Ivanov D.A., Mitrofanov K.G., Sokolova O.V. Competency-based approach in education. Problems, concepts, tools. - M .: APKiPRO, 2003 .-- 101 p.

2. Bolotov V.A., Serikov V.V. Competency model: from an idea to an educational program // Pedagogy. - 2003. - No. 10. - S. 8-14.

3. Seer EF, Symanyuk E. Competency-based approach to the modernization of vocational education // Higher education in Russia. - 2005. - No. 4. - S. 22-28.

4. Khutorskoy A.V. Key competencies as a component of a personality-oriented paradigm // Public Education. - 2003. - No. 2. - S. 58-64.

5. Shashkina M.B., Bagachuk A.V. Formation of research activities of students of a pedagogical university in the context of the implementation of the competency-based approach: monograph // Krasnoyar. state ped un nt them. V.P. Astafyev. Krasnoyarsk 2006.

6. Zeer E.F. Modernization of vocational education: competency-based approach // Science and Education. - 2004. No. 3. P. 35-43.

7. Ponomarchuk P.N. The content and diagnosis of the research competence of law students // Law and Education. - 2009. No. 11. S. 80–87.

8. Lukashenko S.N. Development of the research competence of university students in the conditions of multilevel training of specialists // Bulletin of TPU - 2011.- No. 1 - P. 100-104.

9. Andreev V. I. Pedagogy: a training course for creative self-development. 3rd ed. Kazan: Center for Innovative Technologies, 2003. - 608 p.

10. Khutorskoy A.V. Key competencies. Construction Technology - M., Pedagogy. - 2003. - No. 5