METHODICAL RECOMMENDATIONS FOR MANAGING THE DEVELOPMENT OF SCIENTIFIC AND METHODICAL COMPETENCE OF PRIMARY SCHOOL TEACHERS

Olga Zolochevska

Abstract: These guidelines were developed to organize the management of the development of scientific and methodical competence of teachers in the system of methodical work of elementary schools, are aimed at supporting the effective educational process of educational institutions during distance learning and are addressed to methodologists and practicing teachers. The article defines the tasks, principles, methods and specific features of managing the development of scientific and methodological competence of teachers in the system of methodological work of the school. The advantages of using distance educational technologies in the light of managing the development of scientific and methodological competence of primary school teachers are revealed.

Keywords: competence, development, scientific and methodological competence, primary school teachers, intraschool methodical work, distance educational technologies.

ACM Classification Keywords: scientific and methodological competence

Introduction

Civilizational changes taking place in the world since the second half of the 20th century are associated with the formation and development of a new socio-economic formation - a post-industrial information society. The new society needs a different type of personality - proactive, responsible, efficient and successful active personality of the modern world. Therefore, education is considered as the main instrument of social modernization, and the innovative aspect of the development of education is becoming increasingly important.
The need for a quick response of educational practice to the constantly changing conditions of society's life has actualized the problem of developing and improving the professional and pedagogical competence of an elementary school teacher, and, as an important component of it, scientific and methodical competence. In the context of educational pluralism, the teacher must navigate the variety of modern scientific and pedagogical approaches, be able not only to use and adapt ready-made methodical solutions, but also to solve them independently.

Today, a teacher needs to organize the educational process, relying on the ideas of personal developmental education, to possess modern methodical knowledge and innovative technologies, skills in research activities, pedagogical design, analysis and introspection of professional activities.

The development of scientific and methodical competence is of particular importance for primary school teachers, since the State Standard of Primary General Education is aimed at the implementation of a qualitatively new personality-oriented, developing model of mass primary school, which is designed to help realize the abilities of everyone and create conditions for the individual development of the child.

Problem statement

In order to organize the management of the development of scientific and methodological competence of teachers in the system of methodical work of the school, improving the quality of the educational process, introducing the achievements of advanced pedagogical experience and research results in school practice, expanding opportunities for pedagogical creativity of teachers, methodological recommendations were developed, which are aimed at supporting an effective educational process and are addressed to Methodists and practicing teachers in primary schools.
Algorithm

The methodical recommendations are based on the ideas of a competence-based approach, from the standpoint of which the scientific and methodical competence of an elementary school teacher is considered as a set of qualities:

- knowledge of the content and structure of educational resources of a methodical orientation, modern organizational forms, methods and means of teaching younger students used in the study of various subject areas;

- ability to work with scientific information;

- the ability to solve problems related to planning and organizing forms of interaction with students, their parents, with colleagues;

- the ability to use applied tools for modeling, visualization and generation of schemes for the implementation and stages of the implementation of educational activities of primary schoolchildren;

- the ability to automate the processes of organizing educational activities and monitoring learning outcomes, etc.

Modern approaches to organizing the management of the development of scientific and methodical competence of teachers in the system of methodical work of elementary schools determine the relevance and need for continuous improvement of the teacher’s qualifications in the field of teaching methods. At the same time, it was taken into account the fact that in educational institutions of the first degree, teachers carry out pedagogical activities with a multi-level readiness for scientific and innovative methodical work.

Basic principles for the development of scientific and methodical competence of primary school teachers

To organize the development of the scientific and methodical competence of teachers, it is advisable to select the content of information training for primary school teachers in compliance with a number of principles:
The principle of fundamentalization of training in the use of modern didactic technologies, forms, means and methods of organizing the educational activities of younger students.

For the effective use of modern scientific achievements in their professional activities, the teacher must:

- to know about the existence of publicly available ICTs and be able to use them;
- be able to visually present the available material, deliberately use various forms and methods of presenting data in verbal and graphic forms;
- own the methods of analysis and synthesis, be able to assess the reliability and practical value of the available data from various points of view, adapt them and use them to solve specific pedagogical problems;
- to organize productive meaningful interaction in the classroom in primary school.

The principle of the integrity of training presupposes the achievement of such an organization of the methodical work of primary school teachers, in which the process of advanced training corresponds to the goals of the formation of the teacher's scientific and methodical competence.

The principle of practice-orientededness in the selection of content for the development of scientific and methodical competence of teachers in the system of methodical work of educational institutions of the first stage. As the main principle of the development of the scientific and methodical competence of primary school teachers, the guaranteed effectiveness of the outlined process is determined, that is, obtaining the necessary, valuable result for the teacher, which will increase the quality of his professional activity.

Specific features of managing the development of scientific and methodical competence of teachers in the system of methodical work of elementary school.
1. Organized classes in the system of intraschool methodical service are focused on teachers gaining experience in practical scientific and methodical work.

2. Taking into account the peculiarities of the development of scientific and methodical competence of primary school teachers:

- the use of personal professional, preliminary pedagogical and creative experience of the teacher;

- an increase in the proportion of the teacher's independent work in the use of author's approaches to teaching subjects;

- orientation towards solving specific professional problems of organizing the educational process of primary schoolchildren.

When organizing the development of the scientific and methodical competence of elementary school teachers, it is necessary to take into account the peculiarities of such mental processes as memory, attention, performance, as well as the need to use various channels of information perception, maintain a positive attitude, create a friendly atmosphere using humor, aphorisms, and winged words.

Considerable attention should be paid to the issue of choosing the forms of development of scientific and methodical competence of primary school teachers. One of the most productive is the Kolb method, which determines the cyclical nature of learning (four stages): analysis, reflection, theoretical generalization, experimental stage. The first stage involves the analysis of the available practical life experience; analysis of the achievements obtained by the teacher in the course of the implementation of the existing professional experience. The reflection phase includes the final analysis of the data, reasoning about their meaning. The stage of theoretical generalization allows you to establish a connection between the knowledge gained and the available experience, generate new ideas, build new models. The experimental stage makes it possible to use the “new models” in practice, to determine their effectiveness and the possibility of using them in the field of professional activity.
Methods for the development of scientific and methodical competence of primary school teachers.

We consider active and interactive methods of developing the scientific and methodical competence of elementary school teachers to be effective methods, in particular, such as: brainstorming, round table, business game, role play, training, etc. By flexibility we mean here a combination of external and internal forms of development of scientific and methodical competence primary school teachers. External forms include regional refresher courses. Internal forms can be implemented in the form of pedagogical associations of workers at the institution level: a methodical association, a school of professional skills, a pedagogical workshop, a creative group, a researcher's school, and the like.

Modern scientists dealing with the problem of researching the effectiveness of using internal forms of professional development (T. Babenko, M. Vievsky, etc.) believe that this form is productive, since it makes it possible to:

- to satisfy the collective and individual needs and demands of the professional development of teachers;

- purposefully, substantively and meaningfully ensure the professional growth of a significant number of teaching staff of a given / specific institution (within the framework of the methodological service in which these forms are used), without prejudice to the educational process.

Internal forms of management of the development of scientific and methodical competence of primary school teachers are considered by us as an organized process aimed at improving the professional level of teachers, optimizing their professional activities within a particular educational institution in the direction of using scientific and methodical achievements of pedagogical science in teaching younger students. It is this form of advanced training that meets the needs of practical activity to the greatest extent, is stimulating for teachers, and supports their professional interests.

Distance learning technologies are technologies implemented mainly with the use of information and telecommunication technologies at a distance of a student and a teacher.
The advantages of using distance learning technologies in the light of managing the development of scientific and methodical competence of primary school teachers include:

- training takes place without leaving home, from work, without additional family living expenses while studying in another city;

- individualization of training is possible, provides each teacher with the opportunity to build an individual educational trajectory, an individual schedule of classes;

- electronic control of knowledge guarantees the objectivity and independence of the assessment of the educational achievements of teachers;

- consultations with the methodical using electronic means of communication can be carried out at any convenient time;

- continuous training is carried out;

- along with training in a specific subject area, there is a professional mastering of a personal computer, modern means of communication. Thus, distance education in primary school is a fairly effective and relevant type of education, which has many advantages over the modern education system.

Currently, when implementing distance learning technologies, two technological solutions are usually used: distance courses based on distance learning systems (DLS), distance seminars - webinars. Therefore, to manage the development of scientific and methodical competence of primary school teachers, it is advisable to use the above resources.

Distance learning systems (DLS) (in the English interpretation LM and LCMS (Learning Content Management Systems) is a software package that allows you to plan, provide, manage and take into account the interaction of students: educational content and the teacher. and in Ukraine the DLS is currently the Moodle system.
Moodle is a distance learning system including tools for the development of distance learning courses. Acronym for Moodle, derived from the initial letters of the name: Modular Object-Oriented Dynamic Learning Environment.

The Moodle system thus has a wide range of possibilities. However, using it in isolation does not always lead to optimal results. The system, in particular, implements only virtual communications (forum and chat), does not allow organizing joint work on the network to create documents, does not have a wide range of opportunities for reflection. We consider network seminars - webinars - to be an effective addition to the Moodle system in the context of managing the development of scientific and methodical competence of primary school teachers.

Online seminar (web conference, webinar, English Webinar) - a kind of web conference, online meetings or presentations over the Internet in real time. During a web conference, each of the participants is at their own computer, and communication between them is maintained over the Internet through a downloadable application installed on each participant's computer, or through a web application.

Another technological solution that makes it possible to expand the possibilities of distance educational technologies in the framework of managing the development of scientific and methodical competence of elementary school teachers is Google network services. In addition to regular search, Google offers a number of services and tools for different needs. Most of them are web applications that only require the user to have a browser in which they work and an Internet connection. This allows you to use data anywhere in the world and not be tied to one computer. The advantages of Google services and tools are the presence of a centralized data store and a well-thought-out interface.

The capabilities of DOT are best suited to implement Google Docs and Google Sites. Google Docs is a free online office that includes a word processor, spreadsheet and presentation service, as well as an online file-sharing cloud storage service. Google Sites makes information accessible to people using wiki technology. Site users can work together, add information from other
Google applications, such as Google Docs, Google Calendar, YouTube, Picasa and other sources.

In the system of methodical work of the school in order to manage the development of scientific and methodical competence of elementary school teachers, we consider the joint holding of webinars, courses based on DLS and network materials based on Google services as the optimal technological solution in the use of distance learning technologies.

In the process of improving the professionalism of a teacher and improving the quality of educational activities in the new conditions of educational reality, the problem of the formation of scientific and methodical competence is one of the most important.

It has been established that the development of the scientific and methodical competence of each teacher of an educational institution of the first degree is facilitated by such an organization of the work of the methodical service in an educational institution, in which:

1) all members of the teaching staff have a clear understanding of the importance of scientific and methodical improvement and its availability in a particular institution;

2) all members of the teaching staff have internal motivation aimed at improving the result of their scientific, methodical and professional activities, which is supported and regulated by the administration of the educational institution;

3) educational activities are based on the principles of the new educational paradigm of the NUS Concept, taking into account the context of subject-subject relations (teachers and students) on the basis of compliance with the requirements of program, target and system management;

4) change in the system of moral and value orientations of teachers is aimed at continuous improvement of professional competence in order to improve the quality of teaching, upbringing and life of students.

The main directions of management activities for the development of scientific and methodical competence of primary school teachers are:
1. Creation of conditions for the development of scientific and methodical competence of each teacher, regardless of experience, age and potential.

2. Increasing the prestige of scientific and methodical competence among teachers on the basis of moral and material incentives, as well as meeting the differentiated educational needs of the individual.

3. Organization of an effective structure of the methodical service, based on the goals and objectives of the educational institution development program, creating conditions for the transition to the level of scientific and methodical activities.

4. Formation of multilevel methodical associations in an educational institution in accordance with the needs of teachers. Creation of temporary creative groups for the implementation of both individual and collective scientific and methodical projects.

5. Creation of conditions for prompt and systematic informing of teachers about the implementation of the development program of the institution, about the results of scientific and methodical activities of the team, each team member and about the achievements of students.

6. Expansion of opportunities for the presentation of the results of scientific and methodical developments of teachers through publications, participation in conferences, through the media, as well as participation in grants, competitions, etc.

7. Support for scientific and methodical educational projects that explore national and regional educational problems.

**Conclusion**

Scientific and methodical competence is an integral part of a teacher's professional competence, an important characteristic of his business, personal, professional and social qualities. This is a qualitatively new structural component of the teacher's professional competence for organizing educational monitoring in the context of methodical pluralism. Therefore, for the qualitative
performance of a teacher's professional activity in the context of a humanistic educational paradigm, the presence and further development of scientific and methodical competence is extremely necessary.

Bibliography


Authors' Information

Olga Zolochevska – Postgraduate student of Institute of Pedagogy of the National Academy of Pedagogical Sciences of Ukraine; Ukraine, Kharkiv, Ilyinskaya street 57, e-mail: Proektalpaha@gmail.com

ORCID iD: https://orcid.org/0000-0002-2765-1079