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## **INTRODUCTION OF INNOVATIVE TECHNOLOGIES TO THE SYSTEM OF CONTINUOUS EDUCATION OF PRIMARY SCHOOL TEACHERS IN THE CONTEXT OF EDUCATIONAL REFORM**

**Summary.** The article presents the results of a study conducted by the Department of Primary Education of the Donetsk In-Service Teacher Training Institute on solving the problem of forming the readiness of primary school teachers to work in the New Ukrainian School by means of innovative technologies. To achieve this goal the theoretical and practical research methods were used. The final indicators of the assessment of the level of readiness of primary school teachers to work in the New Ukrainian School on the basis of introduction the innovations indicate the effectiveness of the selected innovative instruments of continuing teachers' education.

**Keywords:** continuing education, innovative technologies, primary school teacher trainings, New Ukrainian School.

**Introduction.** Pedagogical innovation is becoming increasingly important in fulfilling the tasks of the modern educational system. Solving the problem of primary school teacher training at the stage of reforming general secondary education is becoming the leading direction of deepening and expanding the mastering of teachers' skills in the process of continuing education.

The intensity of changes in modern theory and practice of primary school is such that educational systems are difficult to overcome the trend towards everything new. This, in particular, is stated in the Concept of implementation the state policy in the field of reforming general secondary education "New

Ukrainian School’’ for the period up to 2029. There is a need to form the teachers’ readiness to navigate in systems, technologies, assess them adequately, make right decisions on the way to the introduction of the New Ukrainian School in the educational process – that is, dynamically and flexibly influence on the progress in this direction. Therefore, the whole system of teacher training, on the one hand, should be aimed at forming a high level of professionalism and new thinking, developing an individual teaching style, and on the other – to focus and be ready to implement innovative approaches to the educational process in the New Ukrainian School by content and forms.

The leading trend of the modern innovation processes in the field of education and upbringing is technologicalization.

However, there are a number of problems in the process of innovation, the dominant of which is the formation of readiness the New Ukrainian School teachers to work in changing social conditions, to organize the education of primary school students on the basis of modern innovative pedagogical technologies. In this sense, O. Dubaseniuk's statement on the problem of contradictions between the traditional and new approaches to the professional development of teacher's personality, based on the principles of interdisciplinary synthesis and integrative approach, one of which is the contradiction between the need in creating an innovative and developing professional environment and insufficient level of scientific and methodological support of this environment is important for us [1].

Therefore, today the need of organizing the activities of primary school teachers assimilation of new educational technologies in the process of continuing education through innovations has increased significantly. Actually, the regulation of primary school students’ educational activities in accordance with the requirements of the updated basic State Standard of Primary Education (Resolution of the Cabinet of Ministers of Ukraine of February 21, 2018 № 87 (with changes)) is clearly distinguished in advanced educational technologies

that create realistic conditions for the development, form a new way of thinking, have a positive impact on the teachers' professional development.

The process of forming the readiness of primary school teachers to implement innovations in the system of continuing education, in our opinion, has not been reflected as sufficiently justified in terms of a systematic approach yet. The research analysis on this issue shows that the filling of the category of "readiness" is determined by the type of activity, the mastery of which is the purpose of training. In our case, these are innovative technologies for in-service teacher training in order to master their readiness to implement innovations at the stage of reforming general secondary education.

The theoretical sources of our research were the scientific works of I. Bogdanova, O. Vozniuk, O. Dubaseniuk, L. Lisina, S. Sysoeva, and others. Despite of the achievements in solving this significant problem, a number of didactic aspects of primary school teacher training in the system of continuing education need to be studied, among which in terms of educational reform is the informational base of innovative technologies, related to the content of new educational material, the variability of the use of specific teaching methods in primary school, psychological and pedagogical limitations in the application of the technological approach to education; pedagogical guidance of junior school education in the process of using innovations.

Thus, postgraduate training requires solving problems and finding ways and means that will allow to take a new step in ensuring the professional standard of primary school teacher – "Primary school teacher of the general secondary educational institution", that is to bring it to a higher level of professional competence: professional and pedagogical, informational and digital, social and civic, language and communicative, etc. This necessitates thorough teachers training using new teaching methods and technologies, including information and communication.

*Analysis of recent publications, previously unresolved issues, analysis of literature sources on the issue.*

The problem of using innovative technologies in the practice of In-Service Teacher Training Institutes in order to prepare primary school teachers for innovations is considered in many ways.

O. Dubaseniuk expressed the opinion that innovations in the system of professional and pedagogical education have a dual direction. They provide for changes not only in the system of actual pedagogical training, but also have to take into account the changes that occur in all types of educational institutions, as well as historical and pedagogical trends in this area [1].

I. Bogdanova considers the problem from the point of view of the teacher's readiness for innovative activity and allocates the following indicators:

- awareness of the need to introduce educational technologies in their own pedagogical practice;
- awareness of the latest pedagogical technologies, knowledge of innovative methods of work;
- focusing on creating their own creative tasks, methods, setting up on experimental activities;
- readiness to overcome difficulties related to the content and organization of innovation activities;
- possession of practical skills of mastering pedagogical innovations [2].

L. Lisina in her work outlined the structure of innovative activity of the teacher as a personally motivated elaboration of existing educational projects, their independent interpretation, isolation and classification of problematic pedagogical situations, active search for innovative information, acquaintance with innovation; professionally motivated analysis of own possibilities on creation or development of innovations, decision-making on use of new; formulation of goals and general conceptual approaches to the application of innovation; forecasting changes, difficulties, means of achieving goals, results of innovation activities; discussion with colleagues, administration of ways to implement innovations; development of the conceptual basis and stages of experimental work; implementation of innovative actions; introduction of

innovations in the educational process and tracking the sequence of its development; control and correction of implementation the innovation; evaluation of the results of implementation, reflection of the teacher's self-realization [3].

Based on the above, we reveal the specifics of innovation activity in the Donetsk In-Service Teacher Training Institute, which is characterized as a set of educational and research activities, where we give special preference to the application of innovations in training New Ukrainian School teachers.

***The purpose of the article*** is to determine the features of the introduction of innovative technologies in the system of continuing education of primary school teachers in the context of educational reform.

***Presenting the main material.*** The introduction of innovative pedagogical technologies at the stage of postgraduate training of primary school teachers is considered by us on the basis of encyclopedic knowledge as a process of creation, introduction and dissemination in the educational practice of new ideas, tools, pedagogical and managerial technologies, which results in an increasing the level of achievements of the structural components of education and the transition of the system to a qualitatively new state [4].

We consider it expedient to use the definition of "pedagogical technology" by S. Sysoeva: pedagogical technology – is created adequately to the needs and capabilities of the individual and society theoretically sound educational system of socialization, personal and professional development and human development in an educational institution, which, due to orderly professional actions of the teacher with optimal resources and efforts of all participants of the educational process, guaranteed to ensure the effective implementation of a consciously defined educational goal and the ability to optimally reproduce the process at a level that corresponds to the level of pedagogical skills of the teacher [4].

In the procedurally effective aspect, we understand pedagogical technologies as the implementation of the pedagogical process, the functioning of all personal, instrumental and methodological tools.

Since pedagogical technology (according to G. Selevko) must meet the basic methodological requirements, criteria of manufacturability, which include: conceptuality, system, controllability, efficiency, reproducibility [5], the leading idea of using innovative pedagogical technologies in primary school teacher training was to improve the actual training process through the following approaches: the integrity of theory and practice, the inclusion of the main provisions of the technological approach to the content of innovative methods and their use in practice of the Department of Psychology and Personal Development, in particular, the Department of Primary Education of Donetsk In-Service Teacher Training Institute.

The possibilities of solving the problem of introducing the innovative technologies in the practice of continuing education of primary school teachers we see in the consistent use of the principles of a systematic approach and personal-activity approaches to teaching.

The analysis of scientific data made it possible to determine the pedagogical conditions adapted by us to the audience of students according to O. Pometun [6], which contributed to the efficiency and effectiveness of the process of introducing the innovative technologies in postgraduate education of primary school teachers, namely: creating a safe and comfortable environmental content, which corresponds to the content, activities and innovative methods; providing interactive subject-subject interaction in the process of professional development; development of cognitive interests of listeners through the emotional sphere of perception the new material; selection of active forms of activities.

Given the above, we define the role of research and pedagogical staff of the Donetsk In-Service Teacher Training Institute in the effective development of the entire system of continuing teachers' education as a purposeful creative

activity to create, use and disseminate relevant, socially significant innovations for positive development of the teachers' professional skills.

The Department of Primary Education within the global research theme of the Institute "Designing the individual trajectory of the regional teachers' professional development in the context of the strategy "Lifelong Learning" creates opportunities for the effective implementation of innovative technologies through research on "Creating an effective personal and professional support system growth of a primary school teacher of the New Ukrainian School".

The process of using innovative technologies in the system of continuous professional training of primary school teachers is provided on the basis of the principles of separation of innovative technologies: perspective, democracy, humanism, integrativeness, realism, integrity, manageability, economy, relevance.

The introduction of educational innovations by the Department of Primary Education took place in some stages.

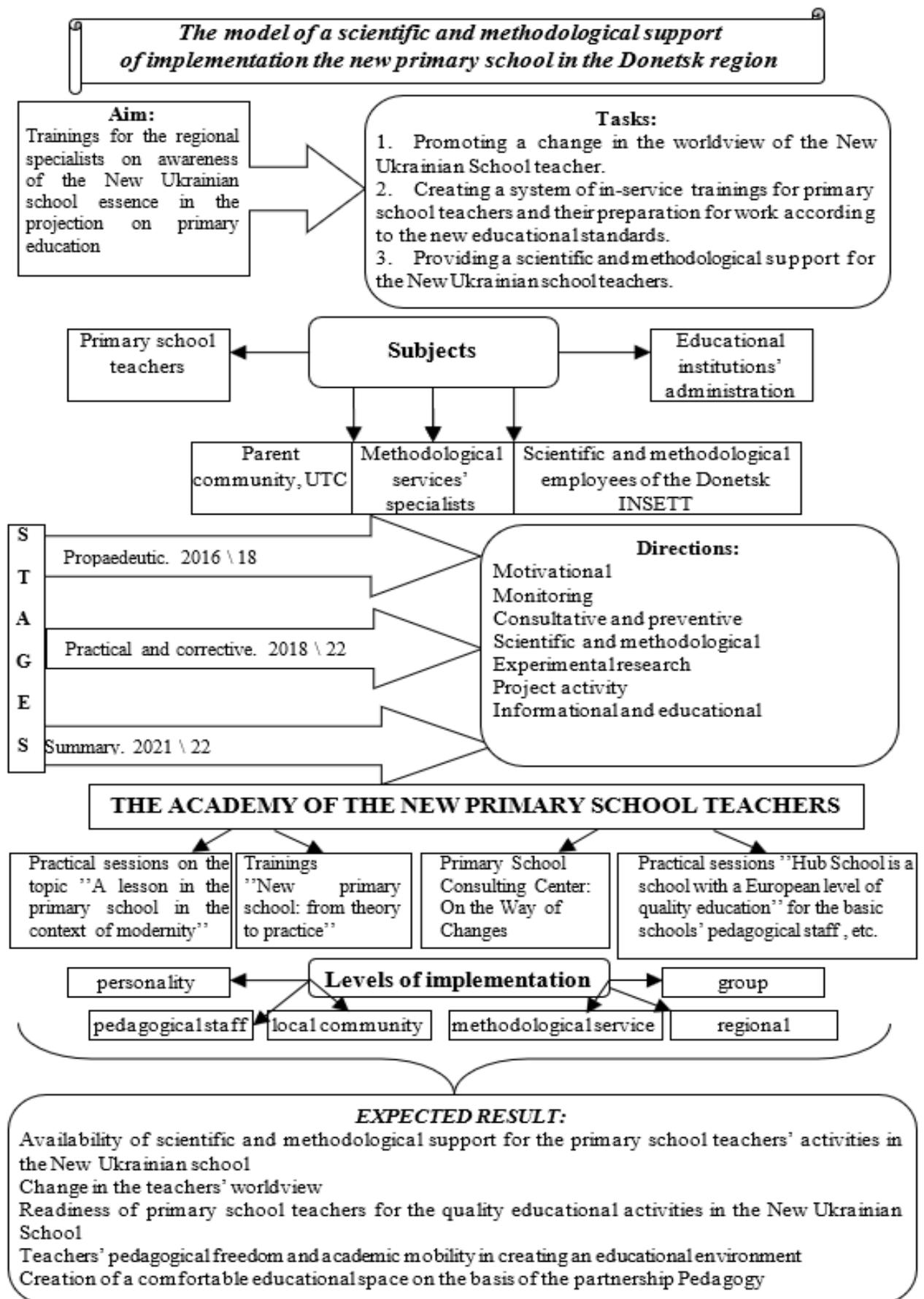
*At the first stage*, a Model of scientific and methodological support for the implementation of a new primary school in the Donetsk region was developed (Fig. 1), working curricula were developed aimed at forming the professional competencies of primary school teachers in accordance with the new professional standard [7].

It is envisaged that the implementation of the model of scientific and methodological support for the introduction of a new primary school in the Donetsk region takes place in several stages:

***1) Propaedeutic stage of 2016-2018.***

*Purpose and tasks:*

- activities to change the teacher's worldview;
- explanation of the essence of newly created normative documents;
- preparation of teachers for the implementation the New Ukrainian School tasks;
- retraining of specialists to work according to the new State Standard;



*Fig. 1. Model of scientific and methodological support for the introduction of a new primary school in the Donetsk region*

- providing the scientific and methodological support to each teacher;
- development and implementation of an adaptive and network system of the teachers' support in the conditions of the New Ukrainian school;
- piloting the first class of the New Ukrainian School according to the new Standard;
- providing the scientific and methodological support to the pedagogical teams of secondary schools, which are included in the All-Ukrainian experiment.

## ***2) Practical and correctional 2018-2022.***

### *Purpose and tasks:*

- practical implementation of the model of scientific and methodological support for the introduction of a new primary school;
- conducting monitoring studies on its effectiveness and efficiency;
- provision of consulting services.

## ***3) Summary and final 2021-2022.***

### *Purpose and tasks:*

- systematization and analysis of the obtained results, comparison with the expected ones;
- registration of work results;
- improving the technology of scientific and methodological support for the introduction of a new primary school;
- generalization and dissemination of the best advanced perspective experience of primary school teachers in the conditions of work in the New Ukrainian school;
- information exchange, coverage of experience in the media.

## ***4) Directions of work according to the model:***

*The motivational* direction is aimed at forming motivation to improve the professional competence of teachers to work according to the new educational standards of primary school, to understand the worldview of the New Ukrainian school teacher.

*Monitoring* provides monitoring the educational space transformation into an innovative comfortable environment in which the child's personality acquires skills and abilities to acquire knowledge throughout life independently and apply them in practice; the expert assessment of the effectiveness of implementation the principles of the New Ukrainian School in the teachers' work.

*Consultative and preventive includes:*

- methodical assistance of the educational process organization and the implementation of the tasks of the State standard of primary general education;
- promoting the creation of social, psychological and methodological aspects of providing the optimal conditions for the teachers' orientation in reforming the New Ukrainian School on the basis of the innovative technologies introduction;
- development of the pedagogical teams' creative potential through increasing the level of each teacher's professional competence, improvement the level of technological preparation.

*Scientific and methodological* is implemented by providing:

- interaction with leading scientific, methodological, public institutions and centers of the International, All-Ukrainian and regional levels dealing with the issues of the New Ukrainian School;
- methodological assistance in organizing the integrated learning, thematic and activity approaches, in modeling the educational programs, planning the thematic education, organizing the educational environment in primary school;
- methodological support in the creation and testing of innovative technologies that contribute to quality education.

*Experimental and research* is aimed at conducting the experimental research work on piloting the first grade of the New Ukrainian School according to the new State Standard, designing the educational environment in the New Primary School, etc.

*Project activity* - in the implementation of projects "Reforming the system of teachers' training and professional development", "New educational

environment” and ”New Ukrainian school” within the regional program ”Education of Donetsk region: national and European vectors of development. 2017-2020”, scientific and pedagogical project ”The Intellect of Ukraine”, projects, etc.

*Information and educational* includes the development and discussion of the draft State Standard of Primary General Education, the principles of the New Ukrainian School, conducting the methodological coachings ”The work of primary school in a changing environment”.

**The main form** of scientific and methodological support for the introduction of a New Primary School in the Donetsk region is ”The Academy of New Primary School Teachers”, which includes:

1. The advanced trainings on ”Designing an educational environment in the New Primary School”.

2. The advanced training courses ”Hub School is a school with a European level of quality education” for the basic schools’ pedagogical staff.

3. ”New primary school: from theory to practice” trainings.

4. ”Implementation of innovative educational methods during the work with the first-graders” workshop.

5. A methodological coaching ”The primary school’s work in a changing environment”.

6. A scientific-methodical and didactic support for the primary school teachers’ training.

7. A consulting Center ”Primary School: On the Way of Changes”.

8. Discussion and elaboration of a new State standard of primary general education, new programs and textbooks.

9. Monitoring studies of the implementation the strategy of preparing primary school teachers to work in a new 12-year school.

10. Implementation of the project ”Reforming the system of teachers’ training and their professional development”.

11. Implementation of the pilot project ”Development and implementation

the educational and methodological support for primary education in terms of the new State Standard's implementation''.

12. Implementation of the scientific and pedagogical project ''The Intellect of Ukraine''.

13. Conducting mentoring visite-meetings.

14. The School of the New Ukrainian School Methodologist.

15. The rubricator ''New Ukrainian school is a step into the future''.

***Expected result, forecasting:***

- availability of scientific and methodological support for the primary school teachers' activities in the New Ukrainian school;

- change in the teachers' worldview;

- readiness of primary school teachers for the quality educational activities in the New Ukrainian School;

- teachers' pedagogical freedom and academic mobility in creating an educational environment;

- creation of a comfortable educational space on the basis of the partnership Pedagogy.

*At the second stage*, the development of educational and methodological support for the advanced trainings of primary school teachers' was organized, namely, an educational and methodological cycle of advanced training courses ''Designing the educational environment in the new primary school'' for the New Ukrainian School primary teachers was prepared which included: the program of the advanced training courses, the workbook of the advanced training courses' listener, an electronic case (presentations to the modules, video materials, etc.). These materials were presented at the All-Ukrainian meeting for the New Ukrainian School regional coordinators (March 15, 2018), during the round table ''Designing the educational environment in the new primary school'' at the IX International Exhibition ''Innovations in Modern Education'' and VIII International Exhibition ''World Edu'' (March 15-17, 2018).

*The third stage* was related to the direct practical innovative technologies introduction in the educational process by teachers of the new Ukrainian school. At this stage, the following were developed: "Guide to the New Ukrainian School" (Issues 1-3), "The Practical Guide for the New Ukrainian School Methodologist". These manuals were presented during the master class "Implementation of innovative technologies in the educational process of the New Ukrainian School" at the X International Exhibition "Innovations in Modern Education" and the IX International Exhibition "World Edu" (March 14-16, 2019).

Scientific and methodological support and support for the introduction of innovative technologies was provided by trainers of the New Ukrainian School, who worked on the main task – through the active practices to form a primary school teachers' willingness to work in a new educational environment and perform new teachers' roles. During such sessions, interactive teaching methods with the use of information technologies, role and game techniques were used, projects were developed and defended, methodological and didactic materials were developed, etc.

Innovations in the process of continuing education of the New Ukrainian School teachers of Donetsk region are presented in table 1.

The effectiveness of using the innovative technologies at the stage of primary school teachers' postgraduate trainings was seen in the formation of their readiness to work in the New Ukrainian School.

We defined readiness for work in the New Ukrainian School as a set of components: motivational and valuable, cognitive, activity and reflexive.

The motivational and valuable component presupposed the presence of beliefs in the significance of this activity, awareness of it as a necessary condition for the successful professional development, efforts to implement it creatively, recognition of oneself as a subject of innovative activity and its positive perception.

Table 1.

**The use of innovations in the process of  
a primary school teacher's postgraduate education**

<b>Innovations</b>	<b>Description</b>	<b>Expected results</b>
The technology of project activity	The project "Learning to live together"	Formation of social and civic competences
Game technologies	Training "Game and activity teaching methods in primary school"	Formation of professional and pedagogical, information and digital, social and civic competences
Problem-searching technologies	Creative studio "On the wave of modernity"	
Interactive learning	Trainings for the regional trainers' professional development who will conduct training sessions and supervision; trainers-teachers who will supervise in the conditions of the New Ukrainian school	
Modular learning	Training session on the integration of education based on life skills from the course "I explore the world" to the software and methodological support of the New Ukrainian School within the project "Safe and child-friendly school"	

The cognitive component of readiness determined the acquisition of knowledge about the goals and main objectives of using the innovations in the educational process of the New Ukrainian school, their role in the development of the primary school students' personalities, the content and structure of primary school teachers' innovative activities during the implementation of this activity, the main functions of the teacher in a given process, factors and nature of didactic difficulties of the teacher, which take place in the process of the professional activity in the New Ukrainian school.

The activity component of readiness provided the ability to identify the purpose, objectives and the object of innovation, planning and organizing it in the New Ukrainian School's educational process.

The reflective component of readiness provided the formation of primary school teachers' (New Ukrainian School teachers) adequate self-esteem in the process of their activities in new conditions.

To determine the level of formation the components of primary school teachers' readiness to work in the New Ukrainian school (sample of 572 people)

we used: observation of activities, questionnaires, self-analysis of their own activities in the New Ukrainian school and self-assessment of their work. The results are shown in table 2.

The final indicators of assessing the level of primary school teachers' readiness to work in the New Ukrainian school, we consider it appropriate to adjust the work with primary school teachers in the direction of forming the adequate self-esteem, namely, to offer a practical special course "The comparative characteristics of the teacher with the normative model of the New Ukrainian school teacher" worked out Appendix A "The form for teacher's self-assessment" (New Ukrainian school: a guide for teachers) [8].

*Table 2.*

**The results of assessing the level of primary school teachers' readiness to implement innovations**

The components of readiness	Levels of readiness		
	Optimal	Allowable	Critical
Motivational and valuable	78 %	19 %	3 %
Cognitive	75 %	23 %	2 %
Activity	85 %	14 %	1 %
Reflexive	58 %	31 %	11 %

These prerequisites determine the need for the scientific and pedagogical reflection and systematic revision of theoretical and methodological, content and methodological dominants of the process and the results of primary school professionals' trainings, taking into account current issues and prospects for the national education's innovative development.

***Conclusions and recommendations:***

Among the main factors of success in reforming the full general secondary education of Ukraine, one of the decisive ones is the specialists' professionalism, their competence readiness for the consistent innovative activities aimed at implementing the priorities of the New Ukrainian School Concept into the educational practice. The research and experimental work promotes the active introduction of pedagogical innovations in the forms and methods of teaching primary school teachers.

The level of primary school teachers' readiness to work in the New Ukrainian School will depend on the effectiveness of innovative learning technologies' introduction in the system of continuing education.

The peculiarity of introducing the innovative technologies of primary school teachers' continuing education in terms of educational reform as one of the ways to solve the problem of teacher's readiness to the introduction of innovations which is the ability of teachers to take responsibility for social and cultural functions of the profession, to understand the social purpose of the professional activity.

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