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ABSTRACT

of the dissertation for the degree of Doctor of Philosophy

**SCIENTIFIC-PEDAGOGICAL BASES OF
IMPLEMENTATION OF INNOVATIONS AT THE PRIMARY
EDUCATION LEVEL**

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GENERAL CHARACTERISTICS OF THE STUDY

In modern times, the Republic of Azerbaijan is carrying out content and structural changes, improving its education system, using the principles of education of the most advanced countries of the world. A school can be considered successful if all its students have the best academic performance and competencies. If a school does not teach students the importance of conscience, personal responsibility, intellectual interest, compassion, empathy, courage, and love, then it cannot be considered a successful school. This means that the task of the school is not only to provide students with the necessary knowledge and skills. The mission of the modern Azerbaijani school is to form students as individuals and citizens with values. For this purpose, value-oriented program (curriculum) reforms, application of innovations, their purposefully implementation on a scientific basis are relevant.

According to the report of the World Economic Forum¹, by 2030, 57 professions will not be needed, 800 million people will lose their jobs, which means that an earned profession will not last a lifetime. Currently, 62% of adults in Sweden, 42% in Germany and 15% in Russia are re-educated. Getting an education is no longer a matter of graduating from a school or university, everyone adapts their education to themselves and their skills, and lifelong learning becomes relevant. By 2022, 186 new professions will appear in 25 areas. It is necessary for everyone to create their own individual education strategy. The report lists ten “soft skills”² required in 2020: problem solving, critical thinking, creativity, management, communication, emotional intelligence, making decisions, proposal orientation, negotiation, fast thinking. Researches of Harvard University³ prove that basic skills account for 85% of success in the job market. 77% of employers said that this is more important than “hard skills”. These re-

¹ <https://www.weforum.org/reports/the-global-competitiveness-report-2018>

² <https://www.work.ua/ru/articles/career/1109/>

³ <https://naukovedenie.ru/PDF/07EVN117.pdf>

sults show that the trajectory of education has changed, the purpose of education is changing. Can the school form the competencies that will be needed in 10 or 20 years?! The school faces new requirements, educational standards and responsibilities.

Our research shows that any failure in the implementation of new curricula and innovations can be directly evaluated as the incompetence of the teaching staff involved in the innovation process. The school needs teachers and school leaders who build their pedagogical thinking and creative educational experience in accordance with the requirements of the time. One of the requirements of the State Strategy for the Development of Education in the Republic of Azerbaijan is the professional development of teachers and school leaders with the help of innovative methods which made it necessary to innovate in this field and create a mentoring system.

The application of humanistic pedagogy and the ideas of self-awareness to the content of teaching stimulates the formation of a new pedagogical thinking of educators. This is useful as an approach that ensures their overall development. The development of educators in this direction is one of the factors influencing the quality of education of both themselves and students.

According to the research, the application and management of innovations in the primary grades attracted the attention of our scientists. Although M.M.Mehdizade, A.A.Alizade, Y.Sh.Karimov, H.H.Ahmadov, A.A.Agayev, F.A.Rustamov, A.O.Mehrabov, A.N.Abbasov, L.M.Gasimova, R.M.Mahmudova and I.N.Isayev commented on some issues, they did not systematically study it as a special object of research.

Russian pedagogues M.I.Kondakov, A.A.Orlov, V.I.Bochkaryov, Y.A.Konarzhovsky, L.A.Veretennikova, N.V.Smirnova, P.V.Khudominski, P.T.Frolov and others studied the issues of school management, innovations and got interesting results. European and American scientists Adam Steinley, Alton J. Cruz, P. Mike Schmoker, Milton Keyes, T.C.Sergiovanni, Stephen Kemmis, and others have shown effective ways to guide school and innovation, but the process of implementing or managing innovation in the primary schools has not been

the subject of research. Therefore, taking into account the urgency of the problem, its practical significance, it was considered appropriate to conduct research on “Scientific and pedagogical basis for the application of innovations at the level of primary education” and to pay special attention to the management of innovations.

The object of research is the process of applying innovations in primary school.

The subject of the research is to determine the system of effective application of innovations in primary school.

The purpose of the research is to develop the features, goals and objectives of the application of innovations in primary school, effective ways of organization, theoretical foundations, to determine the forms, means and methods, to prepare relevant proposals.

In accordance with the purpose of the study, its objectives were identified:

- discovering the essence of innovations applied in primary school;
- development of new models of innovation application;
- determination of pedagogical-organizational conditions for effective application of innovations using new pedagogical technologies;
- conducting experimental testing of research results, preparation of scientific and methodological recommendations for the application of innovations.

Research methods. Methods of observation, survey, systematic analysis, pedagogical diagnostics, modeling, pedagogical experiment, self-assessment, expert assessment were used in the study of the problem.

Research hypothesis. The effectiveness of innovations in primary school will increase significantly if:

- the correct organization of pedagogical process in terms of motivation, content and psychology provided by primary school teachers;
- if the application of innovations has a specific purpose to improve the quality of education;

- school leaders approach the process of innovation from the position of purposeful activity and supportive humanist commander;
- teachers help students to understand the meaning of life and themselves deeply, to motivate them to constantly learn and develop, based on the principles of humanistic pedagogy;
- the application of new technologies and the integrity of the content, taking into account the differences in children's perceptions, based on the theory of multifaceted intelligence in the application of innovations;
- the assessment of students' learning achievements is considered not only the process of learning their acquisition and ability to draw conclusions, but also the diagnosis and monitoring of the effectiveness of innovations in learning activities, the quality of education;
- training, education and psychological development are carried out on the basis of subject-subject relations and the principles of values formation;
- the organization of innovations is based on scientific and pedagogical requirements;
- mentoring approach is used in schools to train competent teachers.

An experiment was conducted in 2012-2017 to test the results of the hypothesis and provisions. The experiment was conducted in secondary schools of Baku, Goygol, Ganja, Sheki and Sumgayit (selectively).

The concept of systematic activity, pedagogical-psychological issues of professional training, formation of pedagogical skills constitute the methodological basis of the research

The identified criteria for the application of innovations in primary school, the proposals on the pedagogical and psychological basis of new models of application constitute the scientific novelty of the research.

Theoretical and experimental ideas having pedagogical-psychological ground, complex proposals to increase the effectiveness of new models of innovation in primary school constitute the theoretical importance of the research.

The practical significance of the research is the results obtained on the application of innovations in pedagogically and psychologically justified primary education institutions and their application in primary education institutions operating in different regions of the country.

The main provisions submitted for defense:

- identified key characteristics of the application of innovations in primary education;
- proposed new models for the application of innovations in primary education;
- programs and technologies for training professionals in the field of management of innovations in primary education, taking into account the initial diagnostic data.

Application of research results. The main provisions and results of the dissertation are reflected in 17 articles (1 article abroad) and 5 theses, 2 methodical aids and 2 books.

Structure of the dissertation: The dissertation consists of introduction, two chapters, eight paragraphs, conclusion, proposals and list of used literature. Introduction – 4 pages, 7132 sign, Chapter I – 43 pages, 76549 sign (1.1. – 8 pages, 16196 sign; 1.2. – 9 pages, 15239 sign; 1.3. – 10 pages, 19335 sign; 1.4. – 16 pages, 25601 sign), Chapter II – 93 pages, 167315 sign (2.1. – 8 pages, 16038 sign; 2.2. – 19 pages, 38309 sign; 2.3. – 35 pages, 69595 sign; 2.4. – 31 pages, 43312 sign) result - 3 pages, 4770 sign, proposals - 2 pages, 2471 sign, including 13 pages of the list of used literature, the dissertation consists of 160 pages, 258237 sign.

The main content of the study

The introduction substantiates the relevance of the topic, provides information about the scientific novelty, goals and objectives, methodological bases, approbation of the research. Chapter I is called “General research questions” and consists of 4 sub-chapters. This chapter shows the essence of pedagogical innovations; analysis of the existing literature in terms of the problem; the state of the problem in

curricula and textbooks and the application of innovations in primary school.

Education based on innovations provides ample opportunities for people to master modern technologies, improve their welfare, continue to compete in the labor market, and take a worthy place. Innovations, that is, managed processes related to the creation, perception, mastery, evaluation and application of pedagogical innovations, is one of the ways of further development of this field. It is related to the content of education, its organization and management, methods and forms of teaching.

What does “innovation” mean? The term “innovation” is derived from the English language, which means “application of innovations”. In Latin, “novatio” means “renewal” (or “change”) and the suffix “in” in Latin means “direction”. “Innovatio” is translated as “in the direction of changes”. It means renewal or improvement, it is a constant response to a changing situation, it is the transformation of knowledge into a new product or service and closely related to the concepts of “discovery”, “rationalization”.

As a rule, innovations occur as a result of a long process of trying to solve a traditional problem in new ways, collecting and comprehending facts that have an innovative meaning and create a new quality. Many modern innovations have analogies with historical experience. It leads to development, focusing on improving the quality of the system in which innovation is introduced. “In fact, all the reforms in the history of education have served the systematic application of innovations in education. Innovation in education means the application of various innovations to the goals, content, methods and forms of education, the organization of joint activities of teachers and students in the economy, organization and management of education on the basis of new knowledge. Innovations in education can be implemented at the national or regional level, within the framework of educational reforms or targeted development programs, in a centralized manner, or locally at the initiative of the educational institution. In this case, experimental activities can be organized within

the pilot project”⁴. Scientists-pedagogues, teachers and other educators engaged in innovative activities act as subjects of this process.

“The application of innovations in different contexts depends on the teachers’ qualifications, students’ training and education level and lifestyle. Innovation specifies various theoretical and practical provisions related to teaching and education. In pedagogy, this level is called a modified type of innovation”⁵.

At the level of change, innovation is characterized by fundamentally new ideas and approaches in the field of teaching and education, which didn’t exist in theory before. There is a fundamental replacement of views, and an original approach is put forward, which is radically different from the popular ideas in this area. I.P.Volkov, A.A.Verbitskiy, I.P.Ivanov, Y.N.Ilyin, V.A.Karakovskiy, S.N.Lysenkova, M.P.Shetinin, Y.A.Yamburg, A.X.Maslou, N.V.Maslova and other scientists demonstrated examples of unique innovative and pedagogical research practices in the process of school renewal in their studies”⁶.

⁴ A.Ahmadov. Formation of innovative education in Azerbaijan. Article. Science and innovation, news of ANAS, № 1, 2009, p. 86-93

⁵ Potashnik M.M. "What lesson do you need: innovative or training?" // National education. -M.: [B. and.], 2010. -№ 7. - P.181-186

⁶ Volkov, I.P Is there a lot of talent in school? / - M.: Znanie, 1989. - 42 p.; Verbitskiy, A.A. Personal and competent approaches to education: problems of integration / A.A.Verbitskiy, O.G.Larionova. - M.: Logos, 2009. - 336 p.; Karakovsky V.A. Director – teacher - student.- M., 1982; Karakovsky V.A. General values are the basis of the whole educational process // Education of schoolchildren. - 1993. - № 3. - C. 2.Lysenkova, S.H.Method of operative training: book for teacher: from experience / Moscow: Enlightenment, 1988. - 192 p.; lsenkovaS. N. I read, I count, I write: How to teach children. - 2001, 96 p.; Shetinin M.P.Embrace the immensity:: notes of the teacher. - M.: Pedagogy, 1986. - 171 p.; Ivanov I.P. The first period of educational work with junior schoolchildren // Primary school. - 1982. - № 8.; Ilyin E.N. Shagi meets, 1986. pp. 75-89; <https://raaliceum.ru/>; E.Yamburg: Free teacher: non-fiction pedagogy. Publisher: Boslen, 2017; Management of quality of education. [Practical landmark, monogr. and method. allowance] / [M.M.Potashnik, E.A.Yamburg, D.Sh. Matros et al.]; Under the editor. M.M.Potashnika; Ross. acad. education. -M.: Ped. about Russia, 2000. P. 441 p. (Management in education) <http://russ.ru/znamia/2009/4/al22.html>; Maslow A. Motivation and personality. - St. Petersburg: Peter, 2008; Noosphere

The experience of countries that have made significant progress in the development of education shows that innovative teaching methods and new content that develop creative thinking and take into account the individual characteristics of students give better results. State standards and programs of general education have been approved in accordance with the Law of the Republic of Azerbaijan “On Education”. In essence, this can be considered a successful innovation implemented in our schools. New subject curricula and textbooks have been applied in I-XI grades of general education since 2008.

It can be said that the essence of pedagogical innovations is the renewal of the content of education, the development of curricula at all levels, the modernization of human resources, the establishment of results-oriented, transparent management system, education system in accordance with modern requirements.

Azerbaijani pedagogues such as M.M.Mehdizade, A.A.Abdul-layev, H.M.Ahmadov, N.M.Kazimov, B.A.Ahmadov, Y.Sh.Kerimov, A.A.Agayev (theoretical and practical issues of using new teaching methods and technologies), I.R.Hajiyev, A.O.Mehrabov and M.C.Mahmudov (the formation of conceptual competencies in education and modern problems of initial pedagogical training), R.H.Mammadzadeh, A.M.Abbasov (the application of of new subject curricula and their specific features), I.H.Jabrailov (conducted research on the content of personality-oriented education) and others studied the essence of the concept of pedagogical innovation and their application in the training process. F.A.Rustamov paid special attention to the formation of personality by conducting research on the purpose and content of education, training and upbringing, as well as secondary school.

Professor Akif Abbasov, one of the authors of the textbook “Pedagogy” (Baku: “Translator”, 2013, 360 p.) shows that “When using interactive teaching methods, students interact more widely not only with teachers, but also with each other, such a learning process

education. Concept Methodology, Methodology m. 1999 (P. 310); 2002 (338 p.) [Http://raen-noos.narod.ru/pers-maslova.htm](http://raen-noos.narod.ru/pers-maslova.htm); N.V.Maslova. Periodic system of the Universal Laws of the World”M.: Pedagogy, 2005. p 97.

is focused on the superior activity of students” (p.138).

In his article “New school year, new tasks” Y.ShKarimov writes: “Often teachers want their students to succeed only on the basis of memory when working on many similar tasks for a long time. They forget that what has been learned must be repeated in new conditions, with new additions, in every lesson” (P. 63). As an example of the successful use of a systematic approach to the analysis of the situation in primary school in Europe, the principle of interaction and interdependence of all components of the organization of training in the context of development and innovation is realized, which is the main principle in “Development of schools: models and changes” (1993) written by A.D.Kalyuven and M.Petrin.

The project approach to the development of the pedagogical system in the primary school can be considered as a special case. The option of implementing such an approach to the development of schools and classrooms is proposed by V.P.Bespalko (V.P.Bespalko. Progressive technologies of pedagogy and teaching. Moscow, 1995; Emerging pedagogical technologies. Moscow. 1999). From his point of view, any conscious pedagogical activity is always guided by a detailed project. The first version of this approach to school and primary school development was developed in the 1990s at the RTA - Institute of Education Management (look:V.S.Lazarev. M.M.Potashnik. How to develop a school development program. Moscow. 1993. School development Management / Edited by V.S.Lazarev and M.M.Potashnik Moscow, 1995: In this model, the process of development and innovation is generally understood as the process of identifying and solving school problems through innovation.

As a result of the study of pedagogical and psychological literature, analysis of school and primary school experience, it became clear that for the organization of the innovation sector in the education system, additional measures should be taken for its scientific, pedagogical-psychological, methodological substantiation, and systematic implementation of results involving specialists in this work.

Lessons were observed in grades I-IV, where curricula was applied to study the current situation. Surveys and observations were

conducted in schools of different districts of Baku, as well as in Ganja, Goygol and Sheki with different quality indicators. 10 school principals, 157 teachers, 170 students and 127 parents who applied subject curricula took part in the survey. 92% of teachers had higher education and 8% had secondary education.

Questionnaires which reflected the activities of subject teachers teaching in primary grades, the application of innovations, assessment of student achievement, etc. were answered. School principals responded to questionnaires on the application of subject curricula, support for innovation and teacher initiative, management, and student-teacher-parent-school relationships.

The results of the survey show that school leaders pay more attention to what to teach than how to teach.

This is directly related to the incompetence of teachers and school leaders in the application of innovations. Teachers have to do something new which they have never been taught before. Perhaps this is why most teachers are so negative about programs and modern school assessment. Due to insufficient competence in curriculum reform, teachers and school leaders have made serious mistakes in managing the implementation of subject curricula.

To study the impact of training courses and other additional educational tools on the professional development of teachers and the application of innovations a survey was conducted with 531 (total) school teachers participating in in-service training courses in Lankaran, Zagatala, Sheki districts, school №288 in Garadagh district of Baku, school №220 in Nizami district, school №209 in Khazar district, school №275 in Surakhani district and 179 in Binagadi district and development courses of ATI.

1. Have you taken part in training courses?
2. Did the development course take into account the difficulties and aspirations of the trainees regarding the application of innovations?
3. Are you satisfied with the training form of the development course?
4. Do you take full advantage of what is taught to apply innovations in the organization and content of the development course?

5. Are you satisfied with the topics related to the innovations taught in the development courses?
6. Did you find answers to questions related to professional competencies in the development course?
7. Have you exchanged views with other colleagues who apply innovations based on the didactic topics of the course?
8. Have you attended training courses on the application of subject curricula?
9. Are you satisfied with the quality of training courses?
10. What is your level of ICT knowledge?
11. Do you use computer technology?
12. How well do you know English?
13. Do you have the ability to communicate with the team?
14. Are you satisfied with the provision of school and the classroom with technical and other resources for applying innovations?
15. Do you share your innovative work experience with your colleagues?
16. Do you attend at the school's pedagogical council?
17. Does the school administration attend your classes?
18. Are your academic achievements evaluated by the school administration?
19. Can you find books on the topics you want in the school library, as well as educational innovations?

Mathematical and statistical analysis of questionnaires, tutorials is shown in tables and diagrams:

Table 1.1
Analysis of classes, questionnaires and tutorials

Number of questions	Number	Answers					
		yes	%	no	%	partial	%
1.	531	250	47,081	281	52,919	0	0
2.	531	113	21,281	303	57,062	115	21,657
3.	531	75	14,124	272	51,224	184	34,652
4.	531	297	55,932	167	31,45	67	12,618
5.	531	72	13,559	267	50,282	192	36,158
6.	531	146	27,495	359	67,608	26	4,8964

Following Table 1.1

7.	531	148	27,872	348	65,537	40	7,533
8.	531	242	45,574	289	54,426	0	0
9.	531	109	20,527	302	56,874	120	22,599
10.	531	74	13,936	124	2,6599	196	36,911
11.	531	135	25,424	191	35,97	125	23,54
12.	531	43	8,0979	370	69,68	118	22,222
13.	531	316	59,51	199	37,476	16	3,0132
14.	531	108	20,339	312	58,757	111	20,904
15.	531	289	54,426	221	41,62	21	3,9548
16.	531	140	26,365	227	42,75	164	30,885
17.	531	170	32,015	212	39,925	149	28,06
18.	531	231	43,503	230	43,315	70	13,183
19.	531	136	25,612	263	49,529	127	23,917

Parents were also interviewed. As a result, the views of teachers and parents on the content of subject curricula almost coincide. Thus, both sides noted that the curricula were not perfect, and the content standards were difficult to implement in textbooks. Only 36% of parents are satisfied with the quality of education provided at school. 75% of parents said that the curriculum was heavy and the requirements did not correspond to the child's age level. Only 57% of students said they learned their lessons easily. According to teachers only 7% of children easily grasp program materials.

Parents' opinions about school assessment: 59% of parents said they were aware of school assessment, and 92% said that they wanted a mark to be written in the child's diary every day. When investigating the reasons, it became clear that they are related to the following factors. Teachers:

- are not sufficiently aware of school assessment.
- make mistakes in the development of assessment tools because they do not know the essence of assessment standards.
- check the how the content is perceived.

With regard to the teaching of subjects, for example, in grades I-IV it was observed that there are certain difficulties in the imple-

mentation of standards in life science. During the monitoring, the simplest questions compiled in accordance with these standards were not answered by the students or were answered incorrectly.

All these show that the small achievements in grades I-IV of secondary schools were accompanied by a number of serious difficulties. The quality of application of innovations, new programs and curricula in schools is low. The further away from the capital, the deeper the situation is.

Chapter II called “The organization of work on innovations at the level of primary education” consists of 4 semi-chapters. This chapter reflects the requirements for the application of innovations at the primary education level; use of innovations in updating the content of education; use of new forms, methods and tools in primary education; issues of analysis and generalization of the results of the pedagogical experiment.

The modern theory of primary education management is evolving as a part of the general theory of education management. The application of innovation requires a new approach, planning, organization, support and motivation. The conditions under which innovation processes in primary education will be effective and how such conditions should be created will be studied.

Democratic and humanistic governance, which is relevant for modern schools, significantly changes the structure of the organization in the primary school, creating a completely different system of connections and relationships, which is necessary in the implementation of innovations. Here, the main governing power is not a teacher, but a student

Research shows that the application of innovations in the primary school in real conditions requires different methods, techniques, specific goals. It is necessary to plan the expected results of innovation processes, and then monitor and evaluate them in more detail, depending on the results of the learning process.

Professor Abdulla Mehrabov wrote that “The modernization of education requires development of professional competencies of both teachers and directors and specialists of education management insti-

tutions; the development of the system of professional development and retraining of teachers”. We saw this visually during the experiment.

The person leading the implementation of innovations in the educational institution must have knowledge and skills in leadership and management in both education and organization. The school principals should have the following skills:

- making changes;
- analyze and evaluate people’s attitudes to changes;
- to determine future prospects and goals of education;
- involve the teaching staff and parents to help to make change;
- define and plan strategic goals;
- continuous professional development and self-esteem;
- collaboration of principals and their team with mentors.

Research shows that innovative activity is an activity accompanied by the application of innovations, but in the process of this activity, scientific and pedagogical requirements must be taken into account when applying innovations. In this regard, it is expedient to develop appropriate development programs and adopt them as models of activity.

Unlike previous programs, the new programs are integrative. For example, reading and writing are no longer separate, but listening comprehension and speaking, reading, writing, and language rules are interconnected and integrative. Learning a language develops a student's creative thinking. Creative thinking is one of the important factors for the formation of personality. Listening and free expression skills are important in the formation of a student's personality. This is possible by mastering the rules of reading and language: “1.1.2. Expresses his attitude to what he hears” (3, p.21). “2.2.6. Distinguishes different literary texts (poetry, prose)” and so on. (3, p.22).

The innovation in the content has also led to innovation in training strategies. Activities in the standards (express attitudes, differentiate, etc.) make students do research and directed educators to use modern learning technologies such as ICT, collective, group, pair, and individual forms of classwork. This requires a high level of pro-

fessionalism and continuous development (mentoring support) from the teacher.

Innovative activity requires special attention to two complementary issues: on the one hand, the provision of high theoretical and practical knowledge and skills, on the other hand, their preparation for life as a perfect person-citizen. It is necessary to form a comprehensive person with professional and basic social skills. My conclusion as a result of the study of the organization, management and analysis of the results of the new content of education:

M.P. Shetinin's research has created a new pedagogy of cooperation. He built his school life in such a way that it became the content of education. Of course, there are programs, subjects, children learn mathematics and biology, This includes the construction of houses, the acquisition of food, art, communication, and so on. Different level of children could act with their individual speed in the learning process. From the point of view of the idea, lyceum-boarding school on complex formation of the personality of children and teenagers headed by Shetinin is a continuation of Makarenko's "school-workshop". Students are encouraged to conduct scientific research that reveals interdisciplinary connections and forms a complete understanding of the world around them. The main idea of Shetinin's school is the development of personality. The subject is not taught, (!) Students study the subject thoroughly. This requires concentration, as a result of such a comprehensive study, the student can take the exam, mastering the entire volume of the secondary school course for a year (!). In the class I attended, I felt how interesting and comfortable this process was ...

The concept of the school is designed in such a way that all knowledge is not fragmentary, but whole, and the student must understand that this or that event on the planet is interconnected and affects each other. Each student is focused on the development of personality traits and talents. The methodological foundations of humanistic pedagogy are explained in detail by a modern pedagogue, academician of the Russian Academy of Education, Sh.A. Amonashvili in the book "School of Life": "Synergetic pedagogy consists of

traditional and humanistic methods, awakens confidence and directs students to spiritual development”.

M.P.Shetinin figuratively defines synergetic pedagogy as follows: “In our opinion, getting knowledge, its presentation and acquisition is impossible in a cold interaction. This is a process that always requires emotions, direct sympathy, joint participation, joint thinking. If knowledge confirms the bright beginning of life in all other cases, then it is productive and constructive. If knowledge strengthens and develops the personality, then it has the right to exist”.

The results of my research to study the experience of the implementation of national and spiritual values as a new content in secondary schools at the “Bobek” National Scientific-Practical Training and Health Center in Almaty, Kazakhstan:

“Fundamentals of the Concept of Self-Awareness” was established as a research in 2000 at the “Bobek” Institute for Humanistic Development of Personality at MEPTSM, and later implemented as a state-level program. The pedagogical staff of the country is regularly instructed. Programs, textbooks and teaching aids reflecting the content of spiritual and moral education are prepared by relevant specialists in the textbook laboratory of the Institute of Humanistic Development of Personality, periodically updated by monitoring and analysis of published pedagogical literature, as well as scientific-methodical aids and teaching materials.

Summarizing the results of research on the application and management of new content, we conclude that the introduction and management of new educational programs (curricula) and other value-oriented content requires teachers and leaders to build this work with the help of mentors based on new principles and approaches.

What is innovative training? What brings innovation to the lesson?

The lesson is, first of all, a process in which the teacher skillfully uses all the opportunities for the development of the student's personality, the conscious acquisition of knowledge, the formation of moral foundations. We can summarize the requirements for primary school lessons as follows:

- there should be a single internal logic defined by the objectives and content of the lesson;
- lessons should be designed taking into account curriculum requirements, content standards, diagnostics of students' skills and needs, teacher capabilities, and self-assessment;
- focus on concrete results, competencies and values;
- knowledge should be acquired in an independent search process through the performance of creative tasks;
- the basis of the lesson should be training planned for the development of individuals.

It is not easy to prepare and conduct such a kind of lesson, it requires responsibly. It is also important to choose methods and tools that are appropriate for the potential and level of children with special needs and special talents. The effective use of ICT in the teaching process allows to organize the lesson more interesting and dynamic. If difficulties arise, they can be resolved through mentoring.

In order to test the results of the hypothesis, an experiment was conducted in school № 3 in Baku, Binagadi district, school № 27 in Khatai district, school № 75, 299 in Surakhani district, school № 310 in Sabunchu district, school № 1 in Goygol city, school № 22 in Ganja, school № 10 in Sheki and school № 11 in Sumgayit. The results of the experiment were analyzed, taking into account the positive and negative aspects of the knowledge and behavior of students, certain changes and improvements were made in the methodology. In many of the experimental and control classes, the lessons were directly supervised, a close relationship was made with the other experimental and control classes, and special attention was paid to the activities of primary school teachers and school principals in the application and management of innovations.

Thus, psychologists and pedagogues determine the effectiveness of the management of the teaching staff and innovations by the level of students' learning results. According to a survey of secondary school principals, it becomes clear that the principals don't plan the strategic activities of the innovative classroom with the class teacher and parents, but generally manages and oversees the school's

educational work. They also can not regulate the staff's work to be a team working on the same goal.

During the experiment, the dominance of innovative pedagogical management in the work of the school, improving the quality of teaching and education was encouraged. The system of collective relations was also considered as one of the important factors, and the development of management and executive skills was widely studied. An innovation manager must share time wisely, use it effectively, listen to employees, get to know his or her team members, take into account their potential, skills and abilities. Although these requirements were taken into account by the heads of the pilot schools, they did not manage to direct the work in the right direction due to lack of relevant skills.

Thus, each principal viewed innovations and decisions about primary school as his or her own subjective opinion, and the results of the above-mentioned indicators in the experimental schools were unsatisfactory and ineffective.

Following the example of Sh.A.Amonashvili's humanistic pedagogy, the experience of M.P.Shetin's school, the philosophy of self-awareness, which is the main content in the education of the Republic of Kazakhstan, special attention was paid to an interesting and very important aspect of this problem in experimental schools. Teachers were suggested to pay attention to important principles when planning training: universal values, personal development in the learning process, creativity, social activity and individual approach.

The results show that the application of these principles and approaches in education has gradually led to teacher-student relations in the school to be in democratic, humanistic leadership style.

At the final stage of the experiment, the tests conducted with the teachers of secondary schools No. 3, 27, 75, 299, 310 in Baku, Goygol 1, Ganja 22, Sheki 10 and Sumgayit 11 were tabulated. Teachers in grades Ia-IVa of the schools surveyed were in experimental groups, while teachers in grades Ib-IVb were in control groups. In total, 72 teachers participated in the survey. The test results were as follows in the following diagrams and summary table:

1. Students master the teaching material more deeply.

2. Students demonstrate independent, creative and purposeful activity in class and extracurricular activities.

3. Mutual cooperation between students expands, close communication is established.

4. Students understand each other better and treat each other with respect.

5. Students' self-confidence becomes stringer.

6. They are able to assess their capabilities more accurately and control themselves.

7. Students acquire the knowledge and skills necessary for future independent life.

8. Indifference among students disappears.

Table 2.1
Results of survey

Number of	Number of	Experimental group						Numbers of	Control group					
		Answers							Answers					
		always	%	Some times	%	never	%		always	%	Some times	%	never	%
1.	36	31	86,1	5	13,8	-		36	12	33,3	22	61,1	2	5,5
2.	36	27	75,0	6	16,6	3	8,3	36	12	33,3	16	44,4	7	19,4
3.	36	29	80,5	5	13,8	2	5,5	36	15	41,6	12	33,3	9	25,0
4	36	30	83,3	5	13,8	1	2,7	36	10	27,7	18	50,0	8	22,2
5	36	26	72,2	7	19,4	3	8,3	36	13	36,1	17	47,2	6	16,6
6	36	24	66,6	8	22,2	4	11,1	36	12	33,3	14	38,8	10	27,7
7	36	25	69,4	6	16,6	5	13,8	36	15	41,6	15	41,6	6	16,6
8	36	30	83,3	6	16,6	-		36	10	27,7	15	41,6	11	30,5

In the learning process, we see that in the lessons of a teacher who adheres to the principles of democracy and humanistic pedagogy there are more opportunities for students' mental development, building relationships and the formation of personality. As can be seen from the positive results of the experiment, the role of teachers in the formation of an emotionally positive and humanistic psychological environment must be emphasized. Teachers demonstrated pro-

fessional skills for the correct formation of moral values and self-awareness in students, the development of a comprehensive personality. It should be noted that mentors worked with these teachers for 6 months.

Observations made during the research and analysis of traditional methods showed that the assessment of the quality of education is not based on objective methods of pedagogical measurement. At the same time, the assessment should guide the activity and create a basis for development. The accuracy of the assessment should determine the efficiency of the activity. According to the experiment, assessment has the following functions:

1. Performs stimulation, expresses attitude to personality. During the pedagogical process, assessment expresses emotions and feelings, affects the student's personality, his learning motivation.

2. Reveals the student's interest and potential in any subject. If it directs student to any profession, then it serves the function of direction.

3. Assessment has an educational value. It forms a student's self-esteem.

4. As the mark is informative, the student who wants to get a higher mark tries to get more information. It determines not only the student's activity, but also the information given by the teacher to the student, i.e., it is the result of the teacher's pedagogical activity.

5. Has a developmental feature. Thus, pedagogical assessment serves the development of subjective features in the personality of the student, and so on.

As Shalva Amonashvili said: "The main thing is not the mark and knowledge gained, but the attitude and value". At the end of the experiment the questions such as "What is the level of knowledge and skills of students?", "How did they master the material taught?", "Can they apply the acquired knowledge?", "Do the students have the ability to compete and cooperate with each other?" were clarified. For this purpose, the students studying cooperate in the experimental schools were divided into three groups: In group I, the level of knowledge acquisition - high; Level of knowledge acquisition in

group II - average; In group III, the level of knowledge acquisition was low.

In the survey, IVa (experimental - 225 students), IVb (control - 216) grade students of

Baku city 3, 27, 75, 299, 310, Goygol city 1, Ganja city 22, Sheki city 10 and Sumgayit city secondary schools were attended.

Results for class IV

Number of questions	Levels											
	High				Avarage				Low			
	Experimental	%	Control	%	Exspermental	%	Control	%	Expermental	%	Control	%
1	196	87,1	53	24,5	24	10,6	92	42,5	5	2,2	71	32,8
2	184	81,7	64	29,6	28	12,4	85	39,3	13	5,7	67	31,0
3	188	83,5	67	31,0	23	10,2	53	24,5	14	6,2	43	19,9
4	186	82,6	76	35,1	27	12,0	97	44,9	12	5,3	42	19,4

Let's take a brief look at the results of the experiment conducted in several classes in terms of the integrity of the content of the study: reducing the number of subjects taught at the primary level and fully delivering the content of primary education helps students to get important knowledge and skills. For this purpose, we tried to teach several subjects in a fully integrated way in several specific classes.

With proper planning a new content has been developed, but no effective teaching of more than two subjects has been achieved in any classroom. Content standards have not been implemented, and

learning objectives have been achieved either partially or with very low results.

During the analysis, special attention was paid to the results of interviews and observations with teachers. The results showed that during training and postgraduate professional development, teachers are taught only the completeness of the pedagogical process as one of the main didactic principles. How should be a single content which involves a complete content of learning and subjects that are fully integrated with each other? As the methodology has not been taught this hypothesis has not been substantiated.. This is just one of the reasons.

Mentoring approaches have been used in experimental schools to train competent and innovative teachers. Mentoring approach - is based on the gradual occurrence of training related to the formation of a new way of thinking of teachers. Mentors supported or co-operated with teachers in the use of new methods and techniques, helped them to use the knowledge they had acquired to update the learning process.

Grades IIIa and IVa of Baku schools №. 3, 27, 75, 285, 299, 310, where the mentors worked, were considered experimental, and grades IIIb and IVb were considered control, and the quality of teaching in the experimental and control classes was compared. The level of mastery of students was calculated statistically and the results were determined. The following formula was used for the calculation:

$$M = \frac{n - c}{n} \times 100\%$$

Here M is the mastery, n is the number of students, c is the number of non-responding students. The difference of answers to the questions with % is clear from the table.

Table 2.5
The level of mastery of students

Classes	Number of students(n)		Number of non responding students (c)		Mastery %	
	Control	Experimental	Control	Experimental	Control	Experimental
III	126	124	64	16	49,2	87,0
IV	140	135	52	14	62,8	89,6

The results obtained after the experiment are as follows:

1. Working with a mentor has developed the teacher's ability to make well-thought-out personal decisions, increase knowledge, improve skills, and feel confident. As the teacher's competence increases, the quality of the teaching process and the application of innovations in the classroom increases as well.

2. Teachers organized the teaching process in such a way that children took responsibility, acquired research skills, and learned to work independently in cooperation with their peers.

3. Teachers interacted with parents as partners.

4. During the training, teachers learned to work with different methods and techniques and applied new technologies such as ICT, integration, integrative learning. Teachers applied the principles of humanistic pedagogy which developed students' self-awareness, humanism, tolerance, national structure and a sense of responsibility.

5. Teachers were able to make a plan on the base of individual needs of children who are in need, and used systematic and accurate assessment methods, taking into account the student achievement and its development level.

6. Teachers regularly assess the quality and effectiveness of their activities and focus on sustainable professional development and mentoring.

7. In accordance with the requirements of the State Strategy for the Development of Education in the Republic of Azerbaijan, each pe-

dagogical staff had the opportunity and conditions for the professional development without leaving the institution where they worked.

Conclusion

Development in the education system always involves the introduction of certain innovations, ie previously non-existent components or connections, but not every innovation is perceived as a process of innovation.

Innovation process - has the potential to increase the efficiency of the educational process in general or any part of it. It is considered as a positive change in the content, goals, conditions, forms, means, methods of other innovative activities.

As a result of the innovation process, the following problems are solved:

1) problem-oriented analysis of the pedagogical system of the school, detection of their shortcomings and assessment of their importance;

2) identification and assessment of opportunities of preventing the shortcomings identified during the application of innovations in the primary education system;

3) designing desirable pedagogical innovations;

4) strategic change planning;

5) operational planning of changes;

6) motivation of teachers' participation in the innovation process;

7) the effectiveness of the application of innovations as a method of professional development of teachers;

8) control over the process of application of innovations and analysis of this process;

9) evaluation of the results of innovations.

On the basis of specific parameters, surveys were conducted with school principals, teachers of I-IV grades, students and parents, the educational process was observed, and interviews were conducted. Standards were selected with students, taking into account the

content lines in each subject, tests and assignments were developed, and lessons were listened to. Based on theoretical research and experiments conducted in this area, we can summarize the following results:

1. The results of the study showed that the introduction of new educational programs (curricula) on subjects in grades I-IV of secondary schools is mainly aimed at expanding the opportunities for the formation of their thinking by ensuring the overall development of students. The achievements are accompanied by a number of difficulties. In the future, it is advisable to work on the integrity of the content of training to improve new educational programs (curricula) by eliminating such shortcomings.

2. Due to the adoption of textbooks based on new educational programs in the form of a set of teaching aids for teachers, a new function of the textbook - the coordinating function - plays a key role in ensuring teacher-student-parent pedagogical cooperation and unity. It is very difficult to succeed in an innovative field without taking into account the characteristics of textbooks. Textbooks that do not meet the requirements are short-lived and quickly become outdated. The experience of recent years proves this.

3. Teachers have been able to plan and apply new approaches - learning standards, programs (curricula), based on the principles of humanistic pedagogy and self-awareness, taking into account the individual characteristics of children. The content of the training was simplified as much as possible, the workload of students was eliminated, and the quality and content of the training was improved. Teachers assessed what was being taught using systematic and accurate assessment methods, taking into account student achievement and the pace of their development.

4. Working with a mentor has developed the teacher's ability to make well-thought-out personal decisions, increase knowledge, improve skills, and feel confident. The teacher's professional competence has increase and developed the quality of the teaching process and the application of innovations in the classroom. The application of

innovations has also shown the highest results as a new method in the professional development of teachers.

5. Summarizing the results of research on the application of new content and innovation management, we conclude that during the application and management of new educational programs (curricula) and other value-oriented, competent-oriented content primary school teachers and school leaders need to use new principles and approaches (preferably with the support of a mentor). Properly implemented goals are the basis for the development of the educational process and the method of its existence which have a special progress. Although teachers have managed to do this work, school leaders have not shown the same results in the process of implementing innovations.

6. The application of modern technical means, new approaches, mentoring system in training facilitated the implementation of the following issues:

- the acquisition of values in addition to knowledge, skills and habits by the learner;
- development of comprehensive and harmonious thinking of students.

Proposals

The proposals of the study are as follows:

1. Innovative activity itself is an activity accompanied by the application of innovations. However, scientific and pedagogical requirements must be taken into account when applying innovations in the process of this activity. In this regard, it is expedient to develop appropriate development programs and adopt them as models of action.

2. Schools and teachers must develop and enrich creativity, human personality, its attitude to people, nature, society, and the spiritual world through the use of new tools, methods and techniques. Teachers must take into account the difference between Education and Upbringing. (!) Upbringing is the foundation of person, and education develops on this foundation. In order to develop teachers' ap-

proaches, it is necessary to apply innovations in teacher training and professional development programs.

3. The psychological environment in the school should be changed, new teacher-student relations should be established. Teachers and school leaders must accept students as a main individual in the school, a unique person at the center of education, and treat them with respect. Primary school teachers should support these relationships as leaders of a professional team working to improve the learning achievements of students.

4. The use of various new forms of work, Gardner's theory, new interactive teaching methods in the teaching process is due to modern requirements. The teacher should take into account that the perception of each topic and the achievement of high learning results is closely linked with the formation of a teaching and value-oriented environment in the classroom and the assessment of the given material. The development of new teaching aids and the organization of professional development without leaving school should be stimulated.

5. Apply the principles of humanistic pedagogy and self-awareness in the learning environment.

6. School principals should be inculcated with the following competencies: make development-oriented changes, identify future perspectives and education goals, attract teaching staff and parents to facilitate changes, identify strategic goals, prepare priority activities, planning, evaluation, networking. These can be done through mentoring, director training or refresher courses.

7. It is advisable to accept and disseminate the creation of a mentoring system and the application of innovations aimed at improving the quality of education as the most effective method of professional development for teachers and school leaders.

8. The application of innovations can be applied as the most unique mechanism of professional development.

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1. Sources of modern education / Preschool and primary education, 2009, №3

2. Effective organization of work with children / “Azerbaijan school” magazine, 2009, №5
3. From the work experience related to the implementation of new curricula / “Curriculum” magazine, 2009, №4
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14. Effective organization of work with students in modern lessons / “Scientific works”, BWU, 2015, №3p. 72-77

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