

## ANNOTATION

of a dissertation for the degree of Doctor of Philosophy (PhD)  
in the specialty 6D010300 - "Pedagogy and psychology"  
of **Orynbaeva Laura Kanybekovna**

**Research topic:** "Formation of personal qualities of students in the conditions of informatization of extracurricular activities".

**The purpose of the study:** scientific and methodological substantiation, development and experimental verification of the system of activities for the formation of personal qualities of students in the process of informatization of extracurricular activities.

**Research objectives:**

1. To substantiate the theoretical, methodological and practical prerequisites for the formation of students' personal qualities in the context of informatization of extracurricular activities;
2. To clarify the modern understanding of informatization of extracurricular activities and significant personal qualities of primary school students based on the usage of digital resources;
3. To determine the principles of construction and the model of the system of extracurricular activities in the context of informatization; to classify and to assemble into a system digital resources that contribute to the effectiveness of personal and group extracurricular activities of students at school;
4. Based on the provisions of the model, determine the components of the content of extracurricular activities that combine various educational functions and formed significant personal qualities of primary school students;
5. To develop and experimentally conduct test to verify the effectiveness of the proposed system of extracurricular activities using a variety of digital resources and ensuring the formation of significant personal qualities of primary school students on this basis.

**Research methods:**

- the study and analysis of philosophical, psychological and pedagogical references and research, educational programs for the arrangement of extracurricular activities of schoolchildren, a review of scientific literature related to theoretical and practical issues of the formation of personal qualities;
- the study and generalization of the experience of informatization of extracurricular work with schoolchildren, generalization of personal experience; study of existing methods of extracurricular work;
- an observation, questioning, testing, expert assessments, analysis of products of educational and extracurricular activities; pedagogical experiment and analysis of its results.

**The main provisions (proven scientific hypotheses and other conclusions that are new knowledge) submitted for defense:**

1. Extracurricular activities of students at the present stage should be built by taking into account certain methodological approaches and psychological and pedagogical principles of personalization be integrated with their main educational and creative leisure activities rely on educational digital resources and services;
2. Informatization of extracurricular activities makes possible a personal approach and the implementation of collective creative work, interactivity, multimedia, updating, basing on modern information built on different views, terminology, languages, cultural and national traditions. *The author's definition of **extracurricular activities** of schoolchildren is based on the purposefully planned and organized work of school students (part of the activities of*

students at school), carried out within the framework of school activities outside the main educational process, which can be indirectly related to the goals and content of the main educational activity, contributing to the deepening of knowledge and abilities and skills or be aimed at satisfying cognitive and other interests, providing all forms of leisure for schoolchildren, achieving the goals of their education, health protection and the formation of significant personality traits;

3. The principles of selection, systematization and classification of digital resources and services in Kazakh, Russian and English for the organization of extracurricular activities of schoolchildren with computer animation, modeling, interactive and other digital tools are effective for the formation of significant personal qualities of students in the context of informatization of schools (*Twig-Bilim*: Daryn, Dostyk, Adep, Adamgershilik). At the same time, “significant personal qualities of students in the context of informatization of extracurricular activities” are complex psychological and socially determined characteristics of adolescents, formed under the influence of digital resources and manifested through relationships to the environment and to oneself in human behavior and activities. Personal qualities are grouped in cognitive, moral, social and communicative, health-saving, ethical and labor, aesthetic directions.

4. The application of the developed model and system of effective forms and methods of organizing extracurricular activities of schoolchildren, content and instrumental digital resources, principles, conditions and functions contributes to the formation of significant personal qualities of students and proves the research hypothesis.

#### **Main results of the study:**

- theoretical, methodological and practical prerequisites were substantiated for the formation of personal qualities of students in the conditions of informatization of extracurricular activities, based on the conceptual provisions on the social, activity and creative essence of the personality and its multifactorial nature of development;

- the modern understanding of informatization of extracurricular activities of students was clarified; the author's definition is given to the concepts: “*extracurricular activities of schoolchildren*” and “*significant personal qualities of students in the context of informatization of extracurricular activities*”;

- pedagogical principles were defined and a model of the system of extracurricular activities in the conditions of informatization was developed, digital resources were classified and collected into a system that contribute to the effectiveness of personal and group extracurricular work of students at school;

- based on the provisions of the model, the components of the content of extracurricular activities were determined, the diverse personal qualities of students were identified and systematized in a complex of areas such as cognitive, moral, social and communicative, health-saving, aesthetic and artistic;

- forms, methods and means of organizing extracurricular activities have been developed that involve the use of a variety of educational digital resources and ensure, on this basis, the formation of significant personal qualities in primary school students.

#### **Substantiation of the novelty and importance of the results obtained and compliance with the directions of scientific development or state programs:**

*The first result is important and new* from the standpoint of scientific substantiation of the methodology for the formation of significant personal qualities of students (personality-oriented, humanistic, creative, acmeological, cultural, systematic and technological approaches) in the context of informatization of extracurricular activities, dictated by the cardinal social reform of the country and the tasks of the state development program education

(2020-2025), which is reflected at all levels of the school system.

*The second result* is characterized by novelty in terms of the author's interpretation of the concepts: "extracurricular activities of schoolchildren" and "significant personal qualities of students in the context of informatization of extracurricular activities".

*The third result* is formulated on the basis of pedagogical principles and the developed model of the system of extracurricular activities in the context of informatization; digital resources and services in Kazakh, Russian and English were classified for working with computer animation, digital postcards, Internet services (iMektep, Twig-Bilim, BilimLand) are aimed at informatization of extracurricular activities of students in personal and group work, comply with the basic principles state program "Digital Kazakhstan" and "Information Kazakhstan".

*The novelty and importance of the fourth result* is seen in determining the components of the content of extracurricular activities and the diverse personal qualities of students grouped according to cognitive, moral, social and communicative, health-saving, aesthetic and artistic features.

*The fifth result* was obtained on the basis of experimental data confirming the effectiveness of the developed forms, methods and means of organizing joint and individual extracurricular activities of students: classroom hour "Seven Facets of the Great Steppe", club of interests "Development of computer games", thematic master class "3D modeling in home economics, and so on.

**Description of the contribution of the doctoral student to the preparation of each publication** (the contribution of the dissertation author is shown as a percentage of the total text):

On the topic of the dissertation, 13 scientific papers were published, including 1 article in a journal included in the Scopus database, 5 articles in scientific publications recommended by the Committee for Quality Assurance in Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan, 3 articles in foreign scientific journals, 4 articles in collections of international conferences. All publications were prepared as part of the research. There are a list of published research articles:

1. *Existing practice and features of informatization of educational activities at school*//Bulletin of the Moscow City Pedagogical University. The series "Informatics and informatization of education".- Moscow, 2017, №1 (39).- Pp.8-17. (Co-authors: Grinshkun V.V. 80%). Educational experience of partners in the conditions of informatization of education is described.

2. *International experience in the use of innovative and information technologies for the formation of personal qualities and education of schoolchildren*//Bulletin of the Peoples' Friendship University of Russia. The series "Informatization of education".- Moscow,2017.- T.14., No. 1.- Pp. 7-16. (Co-authors: Grinshkun V.V. 70%). The article reveals the problems of using digital resources and information tools in foreign theory and practice.

3. *Factors of informatization of extracurricular activities at school, contributing to the personal development of students* //Abai KazNPU Bulletin. Series "Physical and mathematical sciences". – Almaty,2019, №2 (66).- Pp.261-265. The article reveals the positive factors of the formation of significant personal qualities in students through information and telecommunication technologies, the advantages of computer modeling technologies, developing students' abilities in subject areas, cognitive interests in extracurricular activities and increased motivation. (100%).

4. *Principles and conditions of using information technologies in the framework of extracurricular activities of schoolchildren* //Scientific and methodological journal of Abai

KazNPU "Pedagogy and psychology".- Almaty, 2019, №2 (39). - Pp.77-85. (Co-authors: Grinshkun V.V., Bidaibekov E.Y., Kosherbayeva A.N. 50%). The article is devoted to the specifics of extracurricular activities of primary school students and the influence of information technology, as well as describes the principles, conditions and functions that allow to strengthen the educational component of such activities.

5. *Types and features of informatization tools used for the development of personal qualities of schoolchildren in extracurricular activities* //Abai KazNPU Bulletin. Series "Physical and mathematical sciences".-Almaty, 2019, №3(67).-Pp.254-261 (Co-authors: Kosherbaeva A.N. 80%). The article describes the key elements of informatization of education of extracurricular activities of students, classification and research of technologies based on three-dimensional modeling, three-dimensional printing and computer graphics.

6. *Development of Electronic Resources on the Formation of Personal Qualities of Schoolchildren* //Journal of Intellectual Disability - Diagnosis and Treatment.-2020.- Vol.8,Iss.4.- E-ISSN 2292-2598.- 2020.- Vol.8, Iss.4.-P.777-783. (Co-authors: Nuralievna K.A., Valerevich G.V., Yklasovich B.Y., Nuralievna K.G., Bissenbayeva Z. 50%). The article reveals the practice of informatization of extracurricular work at school and its positive impact on the formation of personal qualities of modern schoolchildren in the era of digitalization.

7. *Effective ways of formation of personal qualities of students in the conditions of informatization of extracurricular activities of the school*// Abai.KazNPU Bulletin. The series "Pedagogical sciences".- Almaty, 2021, №4 (72).- Pp.254-261. The article reflects the model, principles, conditions, goals, methods and means consistently developed in the study, which are necessary for the organization of extracurricular work at school. (100%).

8. *Informatization of the educational environment and virtual communities as factors of psychological and pedagogical impact on the modern student* //Pedagogy and psychology. Scientific and methodological journal of Abai KazNPU. – Almaty, 2021, №4 (49).- Pp.134-143. (Co-authors:Tautaeva G.B, Kosherbayeva Az.N., Alipbek A.Z. 50%). The article presents the results of a study on the processes of informatization, which entail drastic changes and new formations in the field of intellectual and emotional development of a modern schoolboy.

*The doctoral student presented the main results of the research and spoke at international conferences on the following problems and aspects:*

9. Features and advantages of using information technologies for the organization of joint extracurricular activities of schoolchildren//Info Strategy. Society. State. Education. IX International Scientific and Practical Conference.- Samara, 2017.- Pp.401-404. The article is devoted to the extracurricular activities of students, the disclosure of its role and didactic advantages in the modern period of development of society. (100%).

10. Global trends of digitalization of education.//Materials of the International Scientific and Practical Conference "Modernization of educational resources: Experience and prospects".-Almaty, 2018.-Pp.364-370. (Co-authors:Kosherbaeva A.N., Grinshkun V.V.60 %).

11. Educational value of information technologies//Materials of the International scientific and practical conference «Methodology and practice of formation of competitive higher pedagogical education» dedicated to the 90th anniversary of Abai KazNPU.- Almaty, 2018.- Pp.314-317. (100%).

12. On the way to creating a digital society// Materials of the VIII International Scientific and Methodological Conference «Mathematical modeling and information technologies in education and science» dedicated to the 90th anniversary of Abai KazNPU.- Almaty, 2018.- Pp.241-244. (100%).

13. Information technologies and ways of their use for the formation of significant

personal qualities in the framework of extracurricular activities of schoolchildren//Mathematical modeling and information technologies in education and science: Materials of the IX International Scientific and Methodological Conference dedicated to the 75th anniversary of Professor E.Y.Bidaibekov and the 35th anniversary of school informatics. Abai KazNPU.- Almaty, 2020. - Pp.377-382. (100%).