

Innovative features of education in Kazakhstan's Lyceum-Gymnasium

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Suggested Citation:

Abirov, D., Ybyraimzhanov, K., Turkmenbayev, A., Abdykerimova, E., & Kuanbayeva, B., (2022). Innovative features of education in Kazakhstan's Lyceum-Gymnasium. *Cypriot Journal of Educational Science*. 17(1), 159-173. <https://doi.org/10.18844/cjes.v17i1.6693>

Received from October 01, 2021; revised from November 03, 2021; accepted from January 15, 2022.

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Abstract

Educational and training institutions that ensure successful learning and diverse working life must implement problem-oriented analyses of the education system and form future self-education and positive activity skills of the individual. The article deals with historical trends in the development of educational institutions such as lyceums and gymnasiums in Kazakhstan. Data collection was in two parts. The first data collected was secondary data and it was used to analyze the current situation in education. The detailed theoretical analysis of literary sources reveals the peculiarities of formation of the structure of functioning of educational institutions, the analysis of the tendencies of implementation of innovative educational programs in the system of education is carried out. The primary data was collected using an experiment. Based on the data obtained as a special elective course for undergraduate students, the article describes the recommendations aimed at changing the educational system to deepen the historical and pedagogical peculiarities of the development of educational institutions of students.

Keywords: educational institutions; gymnasium; innovation; lyceum; structural system of education.

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1. Introduction

Educational and training institutions that ensure successful learning and diverse working life must implement problem-oriented analyses of the education system and form future self-education and positive activity skills of the individual. The introduction of state standards in education is intended to change the needs of society and the requirements of the state for the quality of education - all educational institutions and training and educational establishments acquire new benchmarks.

The main goal is to introduce innovations in pedagogical practice that improve the quality of education and preserve the necessary conditions for the health of students. Improving the professional competence of future teachers is related to the functions, manifestation of the tasks of the general education school, the models of different types of schools. Represents the most important result of the establishment and development of lyceums and gymnasiums, i.e., the clearer the educational problems, the more opportunities to solve them (Dwiyogo, 2018).

The crisis of domestic education was caused by the inability of the education system to follow the changes taking place in the society under global influence. The standardization established in the Soviet Union, state orientation, the consequences of the administrative-command management system did not allow restructuring educational work in sovereign Kazakhstan on a European basis. Secondary schools remained monotonous and outside the global and European educational space. Although the traditional system of education performed its tasks, society did not solve the problems arising in the process of development. As a result, this led to a search for new ways of solving the problems that arose.

The general education school of Kazakhstan is facing challenges in its solution for the formation and development of lyceums and gymnasiums of innovative character, taking into account the world pedagogical experience and the dialectical law of general development. Studying a foreign "world of knowledge" from modern positions suggests getting rid of habitual stereotypes, which have long been out of order and lead to the primitivizing of a dialectically complex picture of school development and pedagogy (Elmira et al., 2021).

Since Kazakhstan was a part of one state before 1991, which was the USSR (SSR), and had a common history of lyceums and gymnasiums, the pattern associated with Russia corresponds to the law of dialectics "the general, the particular, and the singular". From this, we understand the properties and connections of the object, i.e., why the different subjects of the educational space are directed towards learning. But we are referring to the focus, the system of educational content in Kazakhstan, which gives it a certain unity.

During the development of Kazakhstan's education system, it became clear that the quality of education should be competitive, school graduates should be able to apply their knowledge in practice, combine a close link between the education system and the economy, science in line with modern demand, and develop and this has taken place at every stage. Since gaining sovereignty in the Republic of Kazakhstan, the aim of the concepts and programs for the development of education and science (2011-2020 and 2020-2025) has covered two issues: 1. competitiveness of Kazakhstani education and science. 2. increasing the contribution of science to the socio-economic development of the country.

Hence the nature of the educational reforms. A new generation has come from the European educational space, developing new scientific attitudes in society and introducing new ideas and perceptions into the field of teaching and education. The fact that the modern secondary school, recognizing its diverse nature in the form of lyceums and gymnasiums with different characteristics and attributes as an individual form of existence and the development of social relations and relationships, plays an important role in addressing current issues of theory and practice is explored and considered.

1.1. Related Studies

Theoretical study of the features of the pedagogical process in lyceums and gymnasiums in the disclosure of various aspects of the educational process organization Consider the understanding of national-historical and socio-economic characteristics of development through the understanding of the

basis of professional activities of teachers and psychologists and analysis of the development level of principles and organizational structures of the educational system management is one of the main conditions. To consider the most important approach to the management of educational work in the formation and development of lyceums and gymnasiums as innovations. In the works of domestic scientists-researchers of types and substantive structural features of educational schools in Kazakhstan, the development of the national school system was conducted by authors from Russia and post-Soviet Union: Tazhibayev (1962); Kazantsev & Merkushev, (2008), who are part of the researchers of the industry.

A comparative analysis of pedagogy, education system has been analyzed by Kusainov (2021), Sembaev & Khrapchenkov, (1972). Ibrayimzhanov (2006) studied the content structure and specificity of curricula, programs, and the organization of the pedagogical process of grammar schools, progymnasiums, and schools of various types. The works of Sitdykov (as cited in NA et al., 2020) analyzed the features of organizational activities for the functioning and reform of the lyceum and gymnasium. As a result - we were able to identify the main directions of educational activities in lyceums and gymnasiums. According to Lizinsky (as cited in NA et al., 2020), a lyceum is an educational institution that carries out educational activities according to a general education program that differs from the generally used education program.

Opening career guidance profile classes based on general education schools. The specifics of lyceums are regulated only based on strict compliance with state programs and standards and author's programs adapted for each educational institution depending on the direction. Theoretical study of the specifics of the educational process in lyceums and gymnasiums is based on the works of psychologists, revealing various aspects of the organization of the educational process by foreign and domestic teachers. Innovations in educational technology. Determining the areas of learning activities taking into account individual needs and changing obsolete trends.

The scientific works of Nuriyev, Sovetkanova & Seysenbayeva (2018), and others describe the directions of modernization of pedagogical technologies. A great contribution to modeling the effective activity of lyceums and gymnasiums was made by the theories of Isaev (1993) and others. In these theories, education management models are aimed at improving the learning process in lyceums and gymnasiums taking into account the requirements of educational standards. The content-structural organization of lyceums and gymnasiums is different.

General innovation processes running on a continuum. Having summarised and analyzed the historical knowledge of domestic pedagogical science, we have distinguished three stages:

1. period as part of pre-revolutionary tsarist Russia (1726-1917);
2. soviet period (1917-1991);
3. the post-Soviet period (1991-2017).

These periods provide a peculiar set of historical knowledge. In the research works devoted to types of schools, their formation and development, gymnasiums and pro-gymnasiums in the period before 1917 were abolished due to the establishment of Soviet power. In Soviet times, the need arose for a system of profile-oriented education in lyceums and gymnasiums, which was solved by creating such educational institutions as colleges and technical colleges of various branches. The specifics of the educational process in lyceum- and gymnasium-type educational establishments, the characteristic system of the substantive construction of curricula were not considered perfectly and were not taken as a basis.

Since the 1990s, the number of lyceums and gymnasiums in the Soviet Union and the Kazakhstani education system began to increase. Order No.285 of the USSR State Committee on Public Education of June 14, 1991, was published in Bulletin No.11 of the USSR State Committee on Public Education and approved project regulations of general education school-gymnasium (lyceum).

1. A general education school-gymnasium (lyceum) is an educational institute providing students with an advanced level of education, creating opportunities for the comprehensive development of students, revealing their skills and creative potential, preparing students to enter institutions of higher education and universities".

2." A gymnasium (lyceum) carries out its activities based on the legislation of the Union republics in the USSR on basic public education, the USSR interim regulations on secondary general education schools and the above regulations"-established the legal status of a lyceum and a gymnasium.

3. "A gymnasium (lyceum) shall be opened on the initiative of public education authorities, state and public enterprises, institutions, organizations or individual citizens, by decision of regional (territorial), city or district administrations and authorities. The lack of continuity of education in lyceums and gymnasiums with general educational institutions, specialized secondary or higher educational institutions in the domestic system of education, and organization of their activities requires analysis of conceptually constituent elements of the implementation of the results of their discrete development, guided by modern scientific knowledge.

The perfection of branches in various social structures that harmonize with the dialectical laws of natural development. Based on the purposeful association and consolidation of people, a social environment is created which determines the direction of its prosperity and development. This encompasses various spheres of social structure. The processes of preparing and adapting young people to their future life take place. This means conscious upbringing and quality education.

At each stage, the content, tasks, forms, and methods of education organization are transformed, improved, developed, and implemented following the needs of modern demand. Since Kazakhstan attained sovereignty, educational institutions of the lyceum and gymnasium type have been established in society, guided by the idea of transforming and reforming the education system and new construction based on the content of modern scientific knowledge.

Conducted theoretical research and practice in the development of curricula for lyceums and upper secondary schools. Planning and developing aspects of the organization of the learning process involves the need for autonomy and freedom as well as the possibility of joint activities of different actors responsible for the level of students' ability to master learning material and their professional orientation in the future (Finlay, Tinnion & Simpson, 2022).

Graduates of lyceums and upper secondary schools are characterized by the following skills

- formation of moral values, assimilation of cultural norms;
- the ability to observe the norms of behavior in society as taught in the family, the lyceum, and other micro sciences
- introducing self-reflection and reflective thinking skills;
- the acquisition of cognitive, organizational, and information-seeking skills;
- mastery of research skills;
- mastery of systematized theoretical knowledge, requiring a specific profile orientation;
- to have the ability to systematize and classify knowledge, contributing to the creation of a holistic picture of the world;
- orientation in the information space to master professional competencies (George & Spyros, 2016).

1.2. Purpose of study

The article considers the meaningful system of formation and historical development of the education system of lyceums and gymnasiums in Kazakhstan. The development of the modern domestic education system is accompanied by complex processes of changing people's consciousness and

requires revision of universal education. Serious changes are needed, based on the principles of democratic transformation of the national education system. The main peculiarity of society is that based on high rates of mastering and updating of advanced scientific knowledge, innovative systems are created and applied in various spheres of life. The objectives of this study are:

- To analyse-identify and systematize the prerequisites for influencing the essence of lyceums and gymnasiums as a socio-pedagogical phenomenon in education.
- To identify the interrelation of the educational process of lyceums and gymnasiums with other types of schools and systematize the data on the history of education at each stage, summarise the information provided, conduct philosophical, historical, socio-political, and pedagogical-psychological analysis, and express an opinion.

2. Methodology

One of the most important aspects of our scientific work is the historical and theoretical substantiation of pedagogical support of the educational process in lyceums and gymnasiums. Determination of a set of pedagogical conditions necessary to transform and improve the quality of the educational process. The research is of practical importance.

2.1. Sample

The population considered for this study is Kazakhstan. The gymnasiums and lyceums in the Republic of Kazakhstan formed the population of the study. The methodological approaches and methodological teachings guiding the definition of the history of the formation and development of lyceums and gymnasiums in Kazakhstan are concrete-historical, objective, systematizing, and analytical. This is the basis of scientific disclosure of experience in the history of pedagogy. The selected sample for the experiment is 83 students of specialty 5B010300 "Pedagogy and Psychology" I. Zhansugurov Zhetysu University and 90 students of Kainar Academy took part in teaching the elective course, the total number of students in this specialty – 173.

2.2. Data collection Process

Based on the historical methodological foundations, the system of methods in previous research work is a statistical generalization, analysis, and identification of types, search, comparison of curricula and programs in educational areas of lyceum-type and gymnasium-type educational institutions. It also included getting acquainted with research works devoted to the problems of formation and development of educational institutions of lyceum-type schools and gymnasiums, conducting a sorting and analytical analysis. Participation in discussions and exchanges at seminars, authoring articles. The data was collected using questionnaires.

2.2.1. Experiment

The collected primary data using an experiment as the tool for data collection. It included the development and implementation of the program of elective courses for future teachers-psychologists in the pedagogical process of the university. The application of the method of determining the level of knowledge of future teachers in lyceum and gymnasium type educational institutions. The method of determining the accuracy of the elective course was carried out experimentally.

2.2.2. Secondary data

The study also collected data from existing literature, which served as secondary data. The collected data covered aspects such as the recognition of natural-organic links, which contributed to the formation and development of education in real, historical lyceums and gymnasiums. The study of the historical educational system in lyceums and gymnasiums reveals a natural pattern of its formation. The historical-pedagogical approach to the development of education in lyceums and gymnasiums in

Kazakhstan. The study examines the historical and chronological boundaries of education with specific periods.

Reliability of the data relevant to the study is based on a comparison of data from the survey of lyceums and high schools in Kazakhstan with the results of other researchers, the definition of the content structure of the education system of the lyceums and high schools under study. Characterization of the needs of the research problem in the public and social sphere. Validity considers problems of education of lyceums and gymnasiums of Kazakhstan based on the unity of their components and interrelation with the environment, social position, and internal harmony in society.

The question concerning the history of education recognizes that the theoretical stage of pedagogical science is to some extent independent from empiricism, individual, independent. It also recognizes the existence of worldview, methodological principles, which cannot be proved through empiricism (experience) in the production of new scientific knowledge. But only a dialectical approach is capable of correctly interpreting the regularities of the development of science in its functions. That is, the connection of the heads of knowledge with philosophy is not interrupted but deepened anew (Ghezir et al., 2021).

3. Results

The study of theoretical research and the practice of developing curricula for lyceums and upper-secondary schools has created a holistic picture of the educational process. The implementation of an effective learning process, especially for students, aims to take into account the specifics of each person's changing worldview through the organization of the educational process. When planning and developing aspects of the organization of the educational process, the need for autonomy and independence is taken into account, and the way to find opportunities for joint activities with different actors responsible for the educational trajectory of students and their future mastered profession is developed based on the determining tendency of basic didactic requirements, the reflective activity of students, characterizing the procedural and content sides of learning.

Innovative requirements in line with the research-based approach:

- a) emphasize the developmental potential of learning;
- b) going beyond the independent meaning of an exploratory action;
- c) setting diagnostic goals of a high cognitive level;

d) peculiarities of placing the teacher in the position of a partner in educational research imply personal participation of all participants of learning, high personal and professional readiness of the teacher for flexible, tactical interaction with students, in which the limits of the immediate experience of students and students' understanding are extended (Garbin, de Oliveira & Telles, 2021).

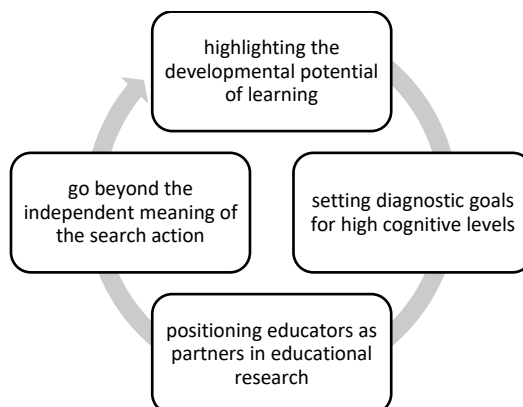


Figure 1: Innovative requirements in the lyceum education system

Criteria for the selection of educational content in the organization of the learning and cognitive process in lyceums and upper secondary schools and the implementation of a system of integration of different subjects

(a) a holistic reflection in the content of general education of the harmonious development of the individual and the formation of his or her basic culture

(b) the scientific and practical relevance of the content of the basic sciences

(c) matching the complexity of the content of academic disciplines to the real learning capabilities of pupils of a particular age

(d) consistency in the content of academic subjects with the time allocated to their study

(f) consideration of the international experience in setting the content of general secondary education;

i) correspondence of the content of general education to the existing educational-methodical and material base of a modern school (Ozdamli & Uzunboylu, 2015). The implementation of the learning and cognitive process in lyceum and gymnasium classes compared to general education classes should be different, which depends on the educational requirements to the subjects of learning and cognitive activity, curricula, and, of course, the individuality of the subjects (Taufik et al., 2021).

The significance of educational practice lies in achieving the overall didactic, methodological goal using scientific and methodological methods and techniques (Buronova & Abdunazarova, 2020). The educational process should be guided by the following aspects: a) mastery of knowledge and practical skills to solve educational tasks at the level of higher education requirements; b) knowledge of the mechanism of implementation of teaching methods and learning activities and current problems of personal development; c) awareness of self as a subject of learning, thought imagination of fictional learning and practical reality; d) ability to manage own mental, behavioral resources; e) vision, perception, analysis and improvement (Iatsyshyn et al., 2020). The aims and objectives of lyceums and gymnasiums in the scientific literature:

- To create favorable conditions for the ablest and prepared pupils to receive a general secondary education;

- High readiness of pupils in the major disciplines;

- Expanding the range of in-depth subject analyses and implementing early profiling;

- Creation of favorable conditions for the upbringing and development of the creative potential of a highly developed intellectual personality.

Lyceums are organized in grades 10-11. In the lyceums formed after 2010, the levels of education had the scope of basic secondary education (Zelenina et al., 2021). Lyceums carry out their activities based on the Law of the Republic of Kazakhstan "On Education", the regulation "on general education institution" and the Lyceum Charter. The implementation of partnerships with higher and other professional educational institutions to provide education in lyceums was to train future specialists.

A significant chronological gap in the activity of lyceums and gymnasiums and a scientifically substantiated special concept for the development of the education system in the Soviet period was absent. The lack of pedagogical experience related to the content structure of lyceums and gymnasiums harmed their development (Szakács, 2018). The law "On Education" defines the goals and objectives of a gymnasium:

- The formation of an intellectual personality with a high level of culture, adapted to life in society, ready for a conscious choice and mastery of professional educational programs;

- Orientation of students towards higher education;

- Development of student's thought processes and individual abilities.

Improvement of general humanitarian training, including linguistic, philosophical-ethical, psychological, etc.; humanization of the content of education and the formation of a personality whose human qualities are fully formed in the process of education. According to the structure of Gymnasium, I preparatory stage (1-4 grades of primary school) provides mastering of basic skills of learning activities, elements of theoretical thinking, actions of self-control of learning activities, the culture of speech and behavior, as well as determining the level of personal abilities and development of the pupil. Progymnasium II (years 5-8 of basic school) determines the personality of the pupil, his or her aptitudes, a stage that provides conditions for the formation of interest and the ability for social self-determination.

Gymnasium stage III (grades 9-11 of secondary school) ensures the completion of the pupil's general education based on differentiated instruction, specialization, preparation for research work, improved opportunities for students' self-realization and self-determination in their future professional career (Allagulova, 2020). Gymnasiums were opened based on the second, third stage. The directions will be humanities, pedagogical, aesthetic, as well as multidisciplinary. In organizing the educational and pedagogical process, partnerships were established with universities following their profiles. Gymnasiums have become educational institutions organizing the search for methods and forms of introducing new content of developmental education, the approbation of practical training, elective courses.

In the 1997 Concept of Development of Secondary Education, at the third level of general education, it is necessary to organize the in-depth study of one or two subjects with the introduction of one or more areas (general humanities, physical and mathematical, chemical and biological, economic, technical, agricultural, art, etc.)". In schools with in-depth study of one or more disciplines, specialized schools, lyceums and gymnasiums, freely created curricula and planned private schools, which implement "variational" working under one of the terms of the curriculum, has led to a difference in the content of education at different levels (Rogach, Ryabova, & Frolova, 2017).

The increase in the number of educational institutions does not indicate an improvement in the quality of education. It does not meet the requirements of lyceums and upper secondary schools established in the world and European education system (Madani, 2019).

Ways have been sought to address the shortcomings. "When analyzing and analyzing the progress of the annual work on the formation of curricula and programs:

- the closeness of the students, the presence of contradictions between the basic curriculum and the additionally introduced disciplines;
- there has been a combined study of some sections of different subjects in the curriculum, which has saved learning time and reduced the time taken to study some topics;
- Lack of legal status for lyceums and gymnasiums to introduce courses and special elective courses is "realistic", "necessary".

Teachers of lyceum and upper secondary schools have analyzed the basic programs and curricula and developed curricula for the basic version based on subject associations. The requirements for curricula have not been systematic. Locally developed curricula and individual provisions were justified. Depending on the wishes and requirements of the pupil, knowledge is given in several directions. In addition to subjects such as physics, mathematics, chemistry, and biology, new courses specific to the nature of the upper secondary school were introduced. Teachers wrote some textbooks themselves and implemented in the preparation of didactic materials and methodological tools.

National peculiarities have been incorporated into the content of each subject. The curriculum has undergone changes and new subjects have been introduced. Instead of the subject "ABC of Ethics" for Grades 1-4, "Ethics" for Grades 5-9, "Aesthetics" for Grades 9-11, "Socially Useful Labour" a new curriculum was developed for in-depth study of Kazakh crafts, where students were taught to make ornaments, embroidery, carpet weaving, etc. The learning experience was conducted in the form of a

lesson. It was the so-called "humanitarian-artistic lyceum". Pupils from general upper secondary schools were admitted into the lyceum from class 8. The eighth class was a preparatory course, the ninth class was the first. The 10th class - the second, the 11th - the third. The newly opened Kazakh lyceum did not meet this requirement. The reason is that in the lyceum the pupils are studied according to the general education program. The biggest problem was for the lyceum. After all, the lyceum had a total of 48 classes in two turns. There were two in grades 9-10 and one in grade 11.

The subjects were taught by dividing them into cycles. These were the science and physics cycle, the mathematics cycle, the foreign language cycle, the humanities cycle, and the educational cycle. Grades 8-11 were taught following the lyceum order, 3 lessons of 90 minutes each day. The weekly duration of studies was 5 days. Transition to the block system/ Atyrau, 1990/. The curriculum and the program were drawn up based on the humanistic experience of pedagogical wisdom of our people and peculiarities of a future Kazakh school. Pupils from 9 to 11 grades, who showed an inclination to certain subjects, were enrolled in the lyceum, mainly from Kazakh schools of the districts of the region and the city. The Lyceum for gifted pupils is mainly taught in 3 areas (chemistry and biology, physics and mathematics, and the humanities).

The training period is 3 years. In the main areas, individual subjects were studied in-depth, the number of hours was increased compared to general education schools, along with new subjects that are not found in the secondary school curriculum, such as Folk pedagogy, ethnography, Arabic language, oratory, special courses, and optional classes were introduced at the request of students for in-depth study of subjects of the biology, physics and mathematics and humanities cycle. The peculiarity is that the academic work is not divided into quarters (as in school), but into 2 semesters, as in higher educational institutions. During the winter and summer semesters, the level of theoretical knowledge of students in subjects is determined by passing tests in 4-5 subjects and exams in 2-3 subjects.

Students were given holidays in winter and a work semester in summer. In contrast to comprehensive schools, the block teaching system was implemented based on a university, where non-traditional forms of lectures, seminars, and lessons were widely used in the learning process, in particular elements of business games in the lesson, solution of logical problems, and tasks, creation of pedagogical situations and discussions. Practical lessons in physics and chemistry, aimed at the practical application of students' theoretical knowledge, were held at laboratories of the Atyrau Pedagogical Institute and the Institute of Chemistry. Gymnasiums and lyceums differ from secondary schools in several ways: first, gymnasiums and lyceums are a type of general secondary education institution; second, they are designed to educate gifted children; third, despite a different name, the main aims and objectives are the same as in the general secondary school system.

In general, the content of education in lyceums and gymnasiums consisted of three components: the union-republican, republican, and school components. The union-republican component was invariant and represented a set of social-humanitarian, natural-mathematical disciplines. It was developed to create continuity in the secondary education system.

While the republican component was driven by the need for specialists at republican enterprises, the school component was driven by local needs and focused on in-depth study and specialized teaching of certain subjects. It consisted of electives and various individual and group classes. The upper secondary school curriculum included special courses which provided for specialization and pre-professional training in the content of education. Scientific and methodological justification and disclosure of some contradictions of existing pedagogical systems in the formation and development of educational institutions of lyceum and gymnasium type based on sharing of pedagogical experience on integration of Kazakhstani educational system into the advanced educational space of historical development.

This will supplement the educational content of the course on the history of Kazakhstani pedagogy and give it a fair assessment from a new perspective. Guided by the results of our research work, we have included the subject of elective course "formation and development of educational institutions of

lyceum and gymnasium type in Kazakhstan" (1987-2017) based on thematic thesis in the pedagogical process of higher education institutions in the preparation of future teachers.

The elective course examines the historiography of lyceum and gymnasium-type educational institutions in Kazakhstan from 1987 to 2017, which have entered the history of national education, and the educational system in them on a historical and methodological basis.

The form of study while studying the topics of the elective course program is lecture-30, SIW-45, SIWT-15. Thematic teaching materials cover a wide range of historical ways of formation and development of a pedagogical system of education in lyceums and gymnasiums, as well as issues of socio-pedagogical structure and social construction. To reveal the content of the theoretical foundations of the history of education in Kazakhstan conversations, questions and answers, discussions were held, each student made reports and drafted essays, supplementing them by searching materials.

83 students of specialty 5B010300 "Pedagogy and Psychology" I. Zhansugurov Zhetysu University and 90 students of Kainar Academy took part in teaching the elective course, the total number of students in this specialty - 173.

Table 1: Results in the teaching and survey stages of the elective course-2017-2018 academic year

№	Name of university	Number of students 2018 2 semester	Actual results in the teaching and survey stages of the elective course					
			Main stage			The final result		
			full answer	medium answer	low answer	full answer	medium answer	low answer
1	I. Zhansugurov Zhetysu university	35	11	16	8	18	17	-
2	Kainar Academy	28	7	11	10	12	14	2
3	Total number	63	18	27	18	30	31	2

Table 2: Results in the teaching and survey stages of the elective course- the academic year 2018-2019

№	Name of university	Number of students 2018 2 semester	Actual results in the teaching and survey stages of the elective course					
			Main stage			The final result		
			full answer	medium answer	low answer	full answer	medium answer	low answer
1	I. Zhansugurov Zhetysu university	23	8	11	4	12	11	-
2	Kainar Academy	38	7	16	15	14	24	-
3	Total number	61	15	27	19	26	35	-

Table 3: Actual results in the teaching and survey stages of the elective course-2019-2020 academic year

№	Name of university	Number of students 2018 2 semester	Actual results in the teaching and survey stages of the elective course					
			Main stage			The final result		
			full answer	medium answer	low answer	full answer	medium answer	low answer
1	I. Zhansugurov Zhetysu university	25	6	12	7	9	15	1
2	Kainar Academy	24	5	15	4	11	13	-
3	Total number	49	11	27	11	20	28	1

The elective course "Formation and development of educational institutions of lyceum and gymnasium type in Kazakhstan" (1987-2017) at 5B010300 "Pedagogy and psychology" of I. Zhansugurov Zhetysu University and Kainar Academy is 173% of the total number of students, and the final result is a percentage.

Guided by the theoretical knowledge systematized in our research work, we conducted a pedagogical practice to improve the effectiveness of the developed elective course, train future teachers, add knowledge on the subject "History of Pedagogy" to the educational program. The research method we have chosen is an experiment /constantiation experiment/, aimed at clarifying the obviousness. Since our research case is a work representing the historical and pedagogical heritage, the experiment aimed at changing the circulation of scientific knowledge in the history of knowledge and clarifying the validity of its impact on the dependent variables using the heritage of the past to replenish modern knowledge, is mainly different from another experiment by its purpose. Nevertheless, history studies the replenishment of the body of knowledge in the pedagogical heritage but cannot influence phenomena in the pedagogical experience of the past. Such a study only reflects a particular situation, without having any influence on it.

The results of the experiment aimed at clarifying the clarity at the stages of teaching the elective course and conducting the questionnaire are given in the following system:

Total percentage for the 2nd semester of 2017-2018 academic year: at the initial stage-full response-11.34%; average response-17.01%; low response-11.34%. End result-full response-18.9%; average response-19.53%; low response-1.26%.

Total percentage for the 2nd semester of the academic year 2018-2019: in the initial stage-full answer-9.15%; average answer-16.47%; low answer-11.59%. End result-full response-15.86%; average response-21.35%; low response -0%.

Total percentage for the 2nd semester of 2019-2020 academic year- Initial result- complete answer-5.39%; average answer-13.23%; low answer-5.39%. Outcome- Full response-9.8%; average response-13.72%; low response-0.49%.

Out of the total number of students involved in teaching the elective course - 173, at the initial stage- completed answer-76.12%; average answer-140.13%; low answer-83.04%. The final result - complete response - 131.48%; average response -162.62%; low response - 5.19%.

4. Discussion

The results of the pedagogical experiment aimed at validation fully confirmed the topic of our study. Thus, the data obtained during the guidance of the results of the pedagogical experiment aimed at clarifying validity confirm the correctness of the presented scientific assumption, as well as justify the completeness of the knowledge obtained by the teacher of the proposed elective course from the history of pedagogy in the professional activities of a teacher. The connection of students with the history of pedagogy in their professional learning activities has opened wide opportunities for self-education and creative work trajectory.

The features of Russian lyceums and gymnasiums: firstly, the specificity of in-depth study of certain subjects; secondly, special courses are designed for in-depth study and vocational guidance of certain subjects. Despite the different names, in reality, the similarity of the aims of lyceums and gymnasiums lies in the fact that these educational institutions are unified - they demonstrate complete inseparability from each other. When comparing the content of education in lyceums and upper secondary schools in different cities, it is clear that their curricula are similar in terms of the subjects covered and differ in terms of the language and social sciences. The analysis of the educational content of lyceums and upper secondary schools in the country shows that they are:

- In the program of general education gymnasiums without taking into account the subjects taught with in-depth content;

- The specificity is not oriented according to educational areas, but according to subject cycles and depending on the specific specialization in the gymnasium, in the lyceum - depending on the type of profession;

- Pre-university training of students at the level of education, pre-vocational and specialized training.

The analysis of the system-structural components of lyceums and gymnasiums shows that the functions of these two types of educational institutions were mixed in the process of their organization (Allagulova, 2020). Based on the multilevel theory of specialist training, we can consider gymnasiums as a stage between general education schools and higher education institutions, and lyceums - as the stages of secondary and high school and the stage of students' preparation for the profession.

The functional differences between upper secondary schools and upper secondary schools as pedagogical systems are based on the following criteria:

- by educational content (general education, specialized education) - by structure (comprehensive and incomplete)
- the composition of the pupils (mixed, accessible, for gifted children, by gender)
- by social conditions (boarding schools, externships, permanent residence)

Due to the incomplete formation of the content of education, duplication of some of their functions, in-depth education took place as an educational institution implementing the pedagogical practice. Based on the model of the world and European education system, further development of lyceums and gymnasiums in the education system of the republic is necessary to ensure their development. Formation of education system continuity as a problem requiring systematic scientific and methodological work. Currently, the interest of students in the historical heritage and cognitive activities is manifested in the development of educational content given in the elective course (Na et al., 2020; Zhu et al., 2021). Students in "Pedagogy and Psychology" have proven the need to master the theoretical knowledge related to the structural content of history and pedagogy and gymnasiums, which is necessary for their professionalism as a whole.

As a result of the pedagogical experiment /constant experiment/ aimed at clarifying the above, the students of the specialty in the period from 1987 to 2017 showed a successful level of learning growth through the elective course, which served as the basis for the formation of their cognitive ideas and attitudes in this direction, mastery of knowledge in the development of lyceum and gymnasium. This proved the necessity of the program provision of the elective course, which is an indicator of the perfect mastery of knowledge on the subject History of Pedagogy in personality-centered development of future teachers of lyceum and gymnasium in adaptation to professional activity based on new knowledge replenishment of the history of education in Kazakhstan (Shvets et al., 2020).

5. Conclusion

The main task of modern society is to ensure the development of a situation of changing requirements for the quality of education and the training of a person capable of actualizing knowledge and skills that ensure the success of learning, cognitive and working activities. Many different educational programs have been set up in Kazakhstan, aimed at the development of students' personalities. Lyceums and gymnasiums have become a source of self-education and the development of personal qualities in subjects. This also includes work to improve the professional competence of teaching staff. During the study of the content of lyceums and gymnasiums, we introduced an elective course "Formation and development of educational institutions of lyceum and gymnasium type in Kazakhstan" (1987-2017) for students majoring in "Pedagogy and Psychology" in the educational process of the university.

This special elective course aims to develop the competencies of future professionals and to change scientific approaches, ways of thinking, professional and personal development in the education system. The implementation of this program will allow students to create conditions for the study of historical and pedagogical peculiarities of the formation of the education system. Analytical and research activities with historical data revealing the original content of educational structures are envisaged. The

organization of classes was conducted in the form of lectures, seminars, conferences, and individual reports. The final control of the study of the elective course is carried out in the form of defense of essays and projects. The main idea of the course is to study the theories of the development of lyceums and gymnasiums in the Republic of Kazakhstan. Aspects of the transformation of the educational process are also considered. The elective course consists of three sections.

1. history of lyceums and gymnasiums.

2. to reveal the peculiarities of the development of these educational institutions in Europe and Russia.

3. identify the main directions of the development of lyceums and gymnasiums in Kazakhstan.

The teaching of this elective course enabled students to form basic professional qualities and theoretical level of knowledge necessary for pedagogical activity. The levels of transformation and transformation of educational institutions have been considered and highlighted. This will enable the training of specialists capable of self-regulation under the demands of a market economy.

1. the features of organization and functioning of the educational process in lyceums and gymnasiums are considered.

2. based on analytical, diagnostic, and theoretical analysis, the real state of educational activity in Kazakhstan was systematized and summarised.

3. the analysis of problems in the educational process of lyceums and gymnasiums was carried out.

As a result, an elective course was prepared, implemented in the pedagogical process of higher education institutions, and conducted an ascertaining experiment with the participation of students of the specialty "Future teacher and educator", the effectiveness of the elective course was determined.

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