Received: February 2023 Accepted: March 2023 DOI: https://doi.org/10.58262/ks.v11i2.451

The Formation of Research Functions of History Teachers on the Basis of Digital Technologies

Astemes Gulim¹, Abdyrakhmanov Tolobek², Auzhanova Assel³, Momuntaeva Lazzat⁴, Smankulova Zhanat⁵, Ergeshov Erzhan⁶

Abstract

The professionalism of a teacher today is the broadest category that determines the quality of a teacher's activity in any conditions. Through professionalism, the personal qualities of the teacher, the quality of his decisions, the choice of means for solving problems and, of course, the result obtained are evaluated. This concept, judging by the publications, tends to expand its scope and scope. The research functions of the teacher in their modern form were not formed immediately; they have deep roots in the history of national pedagogy and education. Studying the dynamics of their formation, we were able to identify four relatively independent stages that are different from each other. A teacher working in the self-development mode seeks to study himself, allocates time for methodological reflection of his experience and future prospects, and overcomes barriers and obstacles in managing personal professional development. This is the kind of teacher the school needs right now. Research activity requires a high level of knowledge, first of all, of the teacher himself, a good command of research methods, the availability of a library with specialized literature, and, in general, a desire to engage in research activities with students in depth.

Keywords: philosophical, pedagogical, education, formation, history teachers, category, method, higher pedagogical education, professionalism, concepts.

Introduction

Currently, our republic is undergoing serious changes in the entire education system. Of course, the main issue of vocational education is the issue of educating qualified, competitive, indemand specialists in a market economy who could adapt to the rapidly changing economic and geopolitical conditions of the time.

In addition, of course, today, with the strengthening of the independence of our young state, the renewal of the consciousness of the people, the requirements for the education system, including the study of the country's history, are radically changing. The main task in studying the history of Kazakhstan is the formation of the national spirit and patriotic education of the younger generation [1].

¹ Kazakh national Pedagogical University named after Abay

² Doctor of historical sciences, professor, Kyrgyz National university named after J. Balasagyn

³ Candidate of Science in History, Astana IT University

⁴ Abai Kazakh national pedagogical university, Institute of history and Law, Department of World History, 1st year doctoral student

⁵ Kazakh national Pedagogical University named after Abay

⁶ Military Institute of Land forces

Now, the formation of a future specialist takes place based on traditional teaching methods, where communication between the teacher and students is assumed, where the teacher constantly monitors the educational activities of students. With such a directive nature of the educational model, only a dialogue moment occurs, where the student reproduces the readymade information received from the teacher, while the student's interest in the learning process is very low.

Therefore, the introduction of innovative technologies into the educational process is a defining feature of modern education. The introduction of non-traditional innovative technologies significantly affects the educational and developmental process, which allows solving many problems of developmental, personality-oriented learning, differentiation, humanization, and the formation of an individual educational perspective of student [2].

All technologies are characterized by certain common features: awareness of the activities of the teacher and students, efficiency, mobility, valeology, integrity, openness, independent activity of students, individualization.

An important feature of innovative approaches in teaching is the focus on the creative development of students, the need to prepare students for independent work, the development and upbringing of a well-educated, cultured, creative, initiative personality.

On the basis of new information and pedagogical technologies, teaching methods and techniques, it has become possible to change the role of the teacher, to make him not only a knowledge carrier, but also a leader, initiator of independent creative work of the student. Otherwise, in modern conditions of the development of the educational services market, in order to achieve the effectiveness and quality of the educational process, teaching national history should combine both a directive and a modern, innovative, interactive learning model. The interactive model is focused on the need to achieve an understanding of the transmitted information. Moreover, the process of transmitting information is based on the principle of interaction between the teacher and the student. It assumes a great activity of the student, his creative rethinking of the information received [3].

Among the most active learning methods, business games are very effective.

The business game brings some variety to the traditionally established structure of the educational process. The use of business games helps to reduce the gap between students' theoretical knowledge and their practical applications. Business or role-playing games are focused on the step-by-step, functional participation of each of the students in the course of the lesson. They provide an opportunity for the active and visible participation of the largest number of students in the learning process and are focused on application in practical classes on the History of Kazakhstan course. This category of methods should include: a) the use of all kinds of handouts — chyndats on the history of Kazakhstan, texts with factual errors or gaps; b) instruction and illustration of the standard of reasoning aimed at independent subsequent use of the student in the process of mental activity; c) role-playing games, the content of which is understood as a gradation of a group of students into several parts and performance by each of the students (or group) of certain functions related to the implementation of the educational process [4].

Another effective method can be called a case study or the method of educational specific situations. The central concept of the method is the concept of a situation, i.e. a set of variables when the choice of any of them decisively affects the final result. The existence of the only

correct solution is fundamentally denied. With this method of teaching, the student independently makes decisions and justifies it. The case study method is a teaching method in which students and teachers participate in direct discussion of business situations or tasks. The cases form the basis of the audience's conversation under the guidance of a teacher. In general, the UKS method allows:

Make the right decisions in the face of uncertainty;

To master the skills of situation research;

Develop an action plan;

Apply the acquired theoretical knowledge in practice.

This method helps to develop the ability to analyze situations and evaluate alternatives [5].

A special role in the methods and means of teaching history is played by the computer and the Internet. Multimedia tools make it possible to ensure the best implementation of the principle of visibility in comparison with other technical means of education, and greatly contribute to the strengthening of knowledge and skills. In addition, multimedia tools are assigned the task of providing effective support for the game forms of the lesson, an active student—computer dialogue.

Effective teaching methods include a research technique that is aimed at teamwork in a group — when it is necessary to analyze the content of an excerpt from the original source in the process of collective reasoning. It is aimed at working in small groups — at seminars. This can include: a) students' work with visual aids on the history of Kazakhstan — these are maps, diagrams, tables, sightseeing and thematic tours of historical museums as work with visual material;

- b) students' work with historical documents;
- c) the use of technical training tools as a combination of different techniques in the course of one lesson.

The project method, which contributes to the high independence of students, has taken a worthy place in the study of the history of Kazakhstan. The teacher is assigned the role of coordinator, he only directs the activities of students. Students explore the chosen topic, collect the most complete information about it, using modern technical means [6].

Integrated lessons occupy a special place in the system of pedagogical activity. They help to develop the cognitive and creative activity of students, enhance the motivation of learning. Conducting such lessons is one of the ways to increase the effectiveness of the educational process based on the implementation of the principles of an activity—based approach to learning [7].

Today, speaking about education, experts strive to emphasize the desire to take into account the interests of students and build the learning process so that the goals and objectives of learning correspond to the capabilities and desires of both students and the social order of Kazakhstani society.

Also, one should not lose sight of the fact that modern education must comply with international standards of education.

The main trends in the education system are related to the transition to a new paradigm of "lifelong learning".

The analysis of the situation in historical science conducted jointly with scientists and teachers of the history of Kazakhstan allows us to make the following recommendations for improving the quality of historical education:

- a) it is necessary to make photo compositions and films on certain topics on the history of Kazakhstan at the state level;
- b) according to the course of the subject, prepare methodological manuals with lesson designs, with multi-level tasks, etc
- c) according to the specific approach of teaching, differentiated questions and tasks should be highlighted in textbooks;
- d) teachers of the history of Kazakhstan should use modern methods and technologies of domestic and foreign education in their activities [8].

By solving these tasks, only then can the educational sphere of our state meet the requirements of modernizing modern society. The most important aspect of the humanization and democratization of education is to provide every student with the prerequisites and conditions for the development of interests and the realization of abilities. In this regard, the Law "On Education" of the Republic of Kazakhstan states: "The main task of the education system is to create the necessary conditions for education aimed at the formation, development, professional development of a person based on national and universal values, achievements of science and practice."

The republic's entry into the global educational space, democratic trends in the development of Kazakh society determine the task of determining the ways of development of school historical education and its transformation. Historical science is crucial in the process of formation of civil society [9].

Studies have shown that many scientists were engaged in various aspects of historical education (Abylkhozhin Zh.B., Auzhanova G.A., Bekmakhanov E.B., Bekmakhanova N.E. Gumilev L.N., Dairi N.G., Leibengrub P.S., Lerner I.Ya.,).

Kazakhstan is actively researching various aspects of the development of school textbooks of National history. Textbooks by authors who have made attempts to illuminate the pages of the history of the republic in a new way: the ancient period (Baypakov K.M.), the medieval era (Baypakov K.M., Kumekov B.E.), modern and modern times (Kasymbayev Zh.K., Kozybayev M.K.). The characteristic features of textbooks are a wide thematic and geographical coverage (Artykbaev Zh.O., Turlugulov T.T.), etc [10].

The research of these authors has significantly expanded the understanding of the importance of creating a school educational and methodological complex on the history of Kazakhstan, its role in the process of education and training of schoolchildren, the formation of a basic level of knowledge based on the state mandatory standard of education.

At the same time, it should be noted that the preparation of new textbooks in order to qualitatively update the content of historical education requires a rethinking of views on the subject of research. In the content of school history courses, it is necessary to reconsider the following points: the ratio of various aspects of society's life - all aspects of society's life should be the object of teaching and assimilation;

the orientation of the content, which should aim at students' awareness of the mutual influence, mutual connection of economics, politics, morality, worldview, art, social movements, etc.; to include in the educational turnover the "human factor" and such a number of historical facts

that with sufficient completeness and objectivity represent the real complexity, versatility and diversity of the historical process [11].

The study of various aspects of school textbooks indicates an increase in the effectiveness of teaching history in schools in the country. However, due attention is not paid to the problem of methodological support of the teacher's work. The country's schools lack educational and methodological complexes on the history of Kazakhstan, books for teachers, art and historical anthologies, books for extracurricular reading, insufficient cartographic and visual material [12].

The success of transformations in society largely depends on the creative activity and professionalism of its members, therefore, the study and further development of the problem of educational and methodological support for the learning process is one of the most important socio-pedagogical tasks. This implies the need to create an educational and methodological complex (UMK) and an experimental demonstration of its capabilities in the study of the history of Kazakhstan [13].

Thus, despite the significant achievements of Kazakh historical science, in pedagogical science and practice there was a clear contradiction between the modern goals and objectives of school historical education and the inadequacy of existing textbooks, the need for teachers for information and the lack of methodological support, the need for popular science literature and the lack of literature for children, which predetermined the problem of our research [14].

In this regard, the question remains: how to teach? The question of how to teach is considered by the methodology. The word "method" in translation from ancient Greek means "way of knowledge", "way of research". A method is a way to achieve a goal, to solve a specific problem. Modern education sets before us the task of moving from dogmatic methods in cognitive activity to research methods, to reach the creative level of intellectual development of students.

Methods and Results

The theoretical and methodological basis of the research is represented by the following theories: cognition as an objective reflection of reality in human consciousness; dialectics of the materialistic doctrine of the social essence of personality, the position on the determining role of activity in the development of personality.

A set of studies was used to solve the tasks set. These include: analysis of scientific and pedagogical literature and educational and methodological documentation on teacher training; systematic analysis of pedagogical publications, processing of studied information; analysis of leading ideas that influenced the formation of new content of history textbooks, curricula, programs and other educational and methodological literature; generalization of advanced pedagogical experience in the development and implementation new methods and ways of learning; experimental work on the development and evaluation of an educational and methodological complex on the history of Kazakhstan [15].

Research sources: works of philosophers, psychologists, teachers, sociologists, historians on the problem; documents and materials (the Constitution of the Republic of Kazakhstan, the Law on Education, the Concept of secondary education development, State standards of secondary education of the Republic of Kazakhstan), normative and methodological provisions and instructions; curricula and programs, history textbooks, pedagogical experimental work the author.

Stages and procedure of the study. The study was carried out in several stages.

The first stage of the study (2021) is devoted to the analysis of the state of school historical literature, methodological support for the course of history of Kazakhstan, theoretical development and identification of the state of development of the problem based on the study of educational and methodological literature, the definition of conceptual, scientific apparatus and the concept of research.

The second stage (2022) is devoted to the development of a methodological basis for research based on the study of educational theory, as well as the search for ways to update historical education, methodological techniques and new learning technologies.

The third stage (2023) is devoted to generalizing and formalizing the theoretical and practical conclusions of the study by introducing them into the practice of schools based on the general education school history program.

Discussion

The analysis was carried out by conducting interviews with teachers and students, compiling questionnaires for schoolchildren, conducting experimental work on the approbation of the UMK. The research went in two directions: experimental classes were selected for testing the UMK, and knowledge cross-sections and questionnaires of teachers and schoolchildren were conducted to compare the effectiveness. The second area is working with history teachers who have completed course retraining at the Institute of Advanced Training. This direction guided us to adjust and improve the quality management system [16].

Returning to the concepts of "method" and "technique", it should be noted that methods are understood as methods of activity. The essence of the methods lies in the fact that they give an answer to the question of how to teach, determine the two-way activity of the teacher and the student. Every teacher strives to make the lesson as good and effective as possible. To do this, increasing professional knowledge and skills, seeking teachers introduce new teaching methods and techniques, for example, the technology of concentrated (block) learning. This is a set of training sessions on a topic, united by a target setting. The study of new material occurs in the process of internal interaction and increment of some knowledge to others [17].

Today, three types of activity, three learning technologies have become widespread: modeling, or game activity, communicative dialogue, or discussion activity, study of sources, or research activity. We can conditionally divide lessons with gaming activities into reconstruction games with an imaginary situation and roles, discussion games in which the situation is modeled with various forms of discussion, analysis of the past from the point of view of the present, and competition games with clearly fixed rules [18].

Lessons with discussion activities are built either on the basis of collective activity with a task for the whole class - a seminar, group work during a structured discussion, when each group performs its task, or individual work, when each student presents his project during the discussion.

Creative research activity can also be presented in various forms - in a practical lesson, a problem-laboratory lesson, in a research lesson itself, with reports, abstracts, and other creative works.

The main task of Kazakhstan's educational policy is to ensure the modern quality of education on the basis of maintaining its fundamental nature and compliance with the current and future

needs of the individual, society and the state. Today, the school is faced with the task of introducing into the educational process forms and methods of work that contribute to the activation of the cognitive activity of students.

Often the textbook acts as the main source for building a lesson. Recently, textbooks on national history and the history of the world published in our country have been much criticized - a complex text compiled without taking into account age characteristics, discrepancies in names, dates, lack of maps, illustrations, competent tasks, etc. The textbook loses its functional role as a means of independent study of history and effective influence on the formation and development of personality.

The teacher takes on many functions that a textbook could perform: it is often a carrier, a source of information, integrates the knowledge and skills of schoolchildren, etc [19].

Modern life today imposes strict requirements on a person - this is a high quality of education, communication skills, dedication, creativity, leadership qualities, and most importantly, the ability to navigate a large flow of information.

The goals and content of education are changing, new means and technologies of education are emerging, but with all the diversity, the lesson remains the main form of organizing the educational process. A teacher gives more than 25 thousand lessons in his life. The new Standards formulate the requirements for a modern teacher:

- > firstly, this is a professional who advises and corrects their actions, finds ways to include each student in the work, creates conditions for students to gain life and professional experience.
- > secondly, it is a teacher who uses developing technologies.
- > thirdly, a modern teacher has informational competence.

Unlike the lesson of the end of the 20th and beginning of the 21st century, the modern lesson is, first of all, a lesson aimed at the formation and development of universal knowledge of the metasubject level. The modern lesson is distinguished by the use of activity methods and teaching techniques such as educational discussion, dialogue, video discussion, business and role-playing games, open-ended questions, brainstorming, etc. The teacher offers tasks that are focused on obtaining not only subject, but also meta-subject and personal results [20].

These tasks include productive (creative). Completing such tasks, students will not find a ready-made answer in the textbook, which means they learn to apply knowledge in practice, design new methods of action, and form their own professional position. A modern lesson in a professional school is, first of all, a lesson in which the teacher skillfully uses all the possibilities and abilities of the student for his active mental growth, deep and meaningful assimilation of knowledge, for the formation of her personal and professional qualities [21].

Conclusion

To date, the situation is beginning to change, and the modernization of the system of methodological training of the future teacher determines the process of significant transformation of its structure and content. This is connected, first of all, with the problem of the lack of a unified system of professional and methodological training of teaching staff in pedagogical universities. In addition, the need for special methodological training of teachers for work in the system of inclusive education has recently become more urgent. The

construction of a fundamentally new system of education in secondary school requires changes in the methodological training of the teacher, the formation of not only a tolerant attitude towards students with disabilities, but also the ability (readiness) to implement the educational process, interaction with such students. In the process of introducing inclusion in education by school teachers and student interns, certain difficulties were identified when working with this category of students associated with the use of methods, forms and means of education, including active and interactive ones. This means that in modern conditions, future teachers of history, social science and law should master not only psychological and pedagogical knowledge and skills (competencies), the general methodology for teaching history, social science and law, but also the basics of special pedagogy, methods education of children with disabilities. As a result, the future teacher develops his own method of teaching social disciplines in the innovative educational environment of a secondary educational institution. In this regard, it seems expedient to include in the course the methodology of teaching subjects an independent module dedicated to the peculiarities of the teacher's methodological work in this area [22].

To date, one of the promising options for solving this problem can be elective courses, provided for by the variant part of the professional cycle of the studied disciplines, the content of which can compensate for training in the "missing" profile (history, social science, law).

At the same time, it should be noted that recently there have been significant positive trends in the development of the training system under consideration, such as focusing on interactive forms of teaching future teachers in the context of an activity approach to their methodological training in a teacher training university; organization of professional training of a teacher based on the technology of block-modular education; increasing the amount of independent work of students, their self-education within the framework of mastering disciplines (courses), introducing e-learning into the educational process of a teacher training university, etc.

Thus, the problems and contradictions that arise in the process of methodological training of a future teacher of history, social science and law are mainly related to the need to expand and deepen its content, which changes in accordance with the needs of the modern school, and trends affect the process of implementing this training, transformation due to the need to activate students, increase the level of their independent activity in the framework of obtaining professional education.

Thus, having considered only some of the modern problems of teaching history in schools, we can draw two main conclusions. Firstly, the thoughtful choice and application of modern teaching methods make it possible to solve one of the most important tasks of education - the formation of a competitive personality that is in demand socially and professionally.

Secondly, in the absence of "good" textbooks, the role of the teacher as a carrier and translator of information increases. The teacher has been and remains one of the main figures in the educational process, who, professionally mastering the methods of pedagogical activity, sets goals, predicts the result and makes informed decisions. The personality of the teacher is of great importance in teaching what is important in life.

The formation of the didactic culture of the future history teacher involves a consistent, phased mastery of didactic knowledge, skills, didactic-oriented competencies and the ability for self-development of subjects of education.

The developed model for the formation of didactic culture of a future history teacher helps to increase the effectiveness of the professional training of future history teachers at a university.

The research materials can be used in the educational process of the university, in the system of professional development of teachers.

References

- 1 Lu, Qingjiu. (2023). Innovation of History Teaching Mode Based on Digital Technology. International Journal of Web-Based Learning and Teaching Technologies. 18. 1-16. 10.4018/IJWLTT.331757.
- 2. Guan, C., Mou, J., & Jiang, Z. (2020). Artificial intelligence innovation in education: A twenty-year data-driven historical analysis. International Journal of Innovation Studies, 4(4), 134–147. doi: 10.1016/j.ijis.2020.09.001
- 3. Jian, Q. (2019a). Effects of digital flipped classroom teaching method integrated cooperative learning model on learning motivation and outcome. The Electronic Library, 37(5), 842–859. doi:10.1108/EL-02-2019-0024
- 4. Jian, Q. (2019b). Chowdhury, T. I., Hoque, M. R., Wanke, P., Raihan, M. Z., & Azad, M. (2022). Antecedents of perceived service quality of online education during a pandemic: Configuration analysis based on fuzzy-set qualitative comparative analysis. Evaluation Review, 46(3), 235–265.
- Jiang, B., Yang, J., Qin, Y., Wang, T., & Pan, W. (2021). A service recommendation algorithm based on knowledge graph and collaborative filtering. IEEE Access: Practical Innovations, Open Solutions, 2021(99), 50880–50892. doi:10.1109/ACCESS.2021.3068570
- 6. Khadjieva, I. A. (2019). Development of spiritual and moral values of students on the basis of innovative technologies. European Journal of Research and Reflection in Educational Sciences, 7(12).
- 7. Li, M. (2021). An immersive context teaching method for college English based on artificial intelligence and machine learning in virtual reality technology. Mobile Information Systems, 2021(2), 1–7.
- 8. Li, X., & Li, D. (2019). An improved collaborative filtering recommendation algorithm and recommendation strategy. Mobile Information Systems, 2019(13), 1–11. doi:10.1155/2019/3560968
- 9. Lin, L. (2021). Control and consent in the connected age: The work of contractors on transnational online education platforms. Socio-economic Review, 2021(4), 4. doi:10.1093/ser/mwab007
- 10. Linda, S., Minz, S., & Bharadwaj, K. K. (2019). Fuzzy-genetic approach to context-aware recommender systems based on the hybridization of collaborative filtering and reclusive method techniques. AI Communications, 32(2), 1–17. doi:10.3233/AIC-180593
- 11. Alsaadi, F. E., Wang, Z., Alharbi, N. S., Liu, Y., & Alotaibi, N. D. (2022). A new framework for collaborative filtering with p-moment-based similarity measure: Algorithm, optimization and application. Knowledge-Based Systems, 2022(19), 248. doi: 10.1016/j.knosys.2022.108874
- 12. Brasher, A., Whitelock, D., Persico, D., Manganello, F., Passarelli, M., & Pozzi, F. (2022). Comparing the comparators: How should the quality of education offered by online universities be evaluated? European Journalof Education, 57(2), 306–324. doi:10.1111/ejed.12497
- 13. Chen, Y., & Zheng, N. (2020). AI-based research on exploration and innovation of development direction of piano performance teaching in university. Journal of Intelligent & Fuzzy Systems, 40(1), 1–7.
- 14. Dama, C., Langford, M., & Dan, U. (2021). Teachers' agency and online education in times of crisis. Computers

- in Human Behavior, 121(3), 106793. doi: 10.1016/j.chb.2021.106793 PMID:36568039
- 15. Das, J., Majumder, S., Gupta, P., & Mali, K. (2019). Collaborative recommendations using hierarchical clustering based on k-d trees and quadtrees. International Journal of Uncertainty, Fuzziness and Knowledge-based Systems,
- 27(4), 637–668. doi:10.1142/S0218488519500284
- 16. Abdikerimova, G., Duisekova, K., Bissenbayeva, Z. The value dominant "Laicite" as part of the media picture of the world of France, XLinguae, 2020, 13(1), pp 75–85
- 17. Aliya, K., Assemgul, A., Bayan, K., Farida, O., Zhanat, B. Review of International Geographical Education Online, 2021, 11(5), pp 422–428. Pedagogical Terms in Self-Organization of Learners During Education Process in Higher Educational Establishments
- 18. Mukhametkaliyeva, S., Smankulova, Z., Kidirbayeva, K., Ismagulova, N., Bissenbayeva, Z. Discursive strategies of using numerological expressions and paroemias | Stratégies discursives d'utilisation des expressions numérologiques et parémies, XLinguae, 2022, 15(4), pp 129–138
- 19. Bekbenbetova, K., Baltabayeva, G., Aimbetova, U., Smagulova, K., Kemerbay, R. Social and philosophical research structures of drama and folk narratives: the manifestations of embodied world views, XLinguae, 2022, 15(1), p 14–22
- 20. Aigul, P., Gaukhar, B. The Development Process of the Ecological Education in Independent Kazakhstan, Journal of Intellectual Disability Diagnosis and Treatment, 2020, 8(3), p 573–579
- 21. Ospanova, Z., Tolybayeva, K., Nurkenova, S., Duisekova, K., Baltabayeva, G.XLingua and culture study research on indirect communication cognitive metaphor. *XLinguae.*, 2020, 13(2), pp 157–165
- 22. Bekmuratov, A., Isakhan, M., Uzakpayeva, S., Zholdasbekova, S., Ospanova, Z., Innovations in audiovisual translation thematic analysis of national art texts, *XLinguae.*, 2022, 15(2), pp 156–163