

**ABSTRACT**  
**of the dissertation for the degree of Doctor of Philosophy (PhD)**  
**for the training area «8D011 – Pedagogy and Psychology»**  
**of the educational program «8D01101 – Pedagogy and Psychology»**  
**on the topic «The formation of master students’ culture of the project activity in**  
**the teacher training process»**  
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**Relevance of the research.** Modern education is focused on training specialists capable of performing professional activities at a high level. The Concept for the Development of Higher Education and Science in the Republic of Kazakhstan for 2023-2029 notes that one of the conditions for the successful digital transformation of higher education is the transition from traditional forms of training to project-based learning methods. The Rome Communiqué (2020) notes the importance of preparing university students to «become active, critically thinking, and responsible citizens». In this regard, project activity and the formation of the project activity culture among specialists are particularly relevant.

In these conditions, special attention is being paid to the training of teachers in higher and vocational education institutions. Postgraduate education programs are aimed at preparing highly qualified teaching, research, and management personnel, as well as systematically enhancing their scientific, pedagogical, and professional competence. One of the responsibilities of today’s educators is the continuous improvement of their professional skills, research, intellectual, and creative abilities. Today, employers are interested in training not only specialists with developed technical skills necessary to solve specific professional problems, but also those with such «soft» skills as «creativity and innovation skills», «teamwork skills», «leadership skills», «adaptability to change», «management skills», and «results orientation». In other words, a modern teacher must not only have a deep knowledge of the subjects they teach, but also possess communication, collaboration, creativity, and critical thinking skills (the so-called «4K» competencies), be comfortable with digital technologies, be able to work in a team, and successfully manage projects. This requires not only knowledge of project activity methods, but also a well-developed, holistic culture of the project activity.

Project activity, and consequently a culture of the project activity, plays a special role in the pedagogical training of master’s students: it brings the learning process closer to the real-life conditions of teaching practice; develops research skills; encourages teamwork, leadership, and creativity; and enhances self-regulation and the formation of a professional development strategy. However, in the existing system of pedagogical training of master’s students, the issue of purposeful formation of a culture of project activity is not sufficiently developed; in particular, there is no holistic model that ensures the systematic organization of this process.

The works of both domestic and foreign scientists are devoted to the issues of professional and pedagogical training of master’s students: D.B. Abykenova, A.Zh. Ayapbergenova, B.Sh. Baimukhambetova, S.Ch. Baysultanova, A.A. Bulatbaeva, A.S. Dontsov, K.A. Yesenova, Zh.E. Imanchiev, L.K. Naumova,

Yu.V. Solyanikov, Yu.V. Sorokopud, L. Darling-Hammond, O. Fizeshi, F. Ries, C.M. de M. Tavares, et al.

The problems of the project method and project-based learning have been studied by such Kazakhstani scientists as E.N. Dauyenov, Zh.A. Mamytbayeva, D.I. Mukhatayeva. Foreign scientists who have studied this issue include: R.M. Antropova, A.L. Blokhin, G.B. Golub, I.I. Dzhuzhuk, L.A. Dordzhieva, G.A. Zabelina, E.V. Kotova, E.A. Penkovskikh, I.N. Smirnova, Y. Cho, D.S. Fleming, P. Guo, M. Kubiato, J. Ravitz, H. Roessingh, et al.

A lot of works are devoted to the study of project activity: M.B. Kurmanbekova, A.Zh. Kasabolat, V.V. Savelyeva, A.N. Volkova, E.A. Zemlyanitsyna, T.O. Katerbarg, A.S. Opanasets, N.P. Rusinova, S.A. Tsyplakova and others. Scientists such as V.D. Vasilyeva, T.V. Vasilyeva, I.S. Islambekova, I.P. Ponomareva, T.L. Stenina, L.A. Filimonyuk studied the nature of project culture.

Despite the growing number of studies and a rich theoretical base on the problems of project activities, there are **contradictions**:

- between the requirements of state educational standards and employers' demands for graduates with a high level of culture of the project activity, and the fragmented nature of project activity in master's degree programs;
- between the need to introduce a holistic model for the formation of a project activity culture into master's degree programs and the lack of effective methodological solutions that ensure the integration of project-based learning, research, and teaching practices.

The identified contradictions made it possible to define the **research problem**, which consists in finding optimal psychological and pedagogical conditions for the formation of a culture of project activity among master's students in the in the teacher training process.

This problem determined the choice of the topic of the dissertation research: «The formation of master students' culture of the project activity in the teacher training process».

**Research purpose:** theoretical substantiation, development and experimental testing of a model for the formation of a culture of the project activity among master's students in the teacher training process.

**Research object:** the teacher training process of master's students.

**Research subject:** the formation of master students' culture of the project activity.

**Research hypothesis:** if the process of pedagogical training of master's students is carried out on the basis of a scientifically based model that ensures the integration of its structural components, **then** the formation of master students' culture of the project activity will be effective, **since** the integrity and interconnected formation of all components of this construct (axiological component, cognitive-activity component, creative component, reflective component) is ensured.

Based on the purpose and hypothesis of the research, the following **objectives** were formulated:

1. To characterize the features and principles of selecting the content of pedagogical training for master's students.

2. To reveal the features and structure of project activity in the pedagogical training of master's students.
3. To identify and substantiate the essence and structure of the master students' culture of the project activity in the process of pedagogical training and its diagnostics.
4. To develop and substantiate a model for the formation of the master students' culture of the project activity in the process of teacher training.
5. To determine the initial level of the master students' culture of the project activity.
6. Conduct a pedagogical experiment to implement a model for the formation of the master students' culture of the project activity and evaluate its effectiveness.

**The main idea of the research** is that the development and implementation of an effective model for the formation of the master students' culture of the project activity during pedagogical training contributes to an increase in the level of the formation of project activity culture, ensuring their readiness for effective professional and project activity in the context of modern education.

**The theoretical and methodological basis of the research** includes:

- systematic approach (J.A. Komensky, K.D. Ushinsky, V.G. Afanasyev, V.A. Slastenin, Z.A. Kuttykuzhanova, S.S. Aldabergenova);
- activity-based approach (L.S. Vygotsky, A.N. Leontiev, N.F. Talyzina, A.G. Asmolov, O.B. Episheva);
- personality-oriented approach (V.V. Serikov, I.S. Yakimanskaya, E.V. Bondarevskaya, A.A. Faleyeva, S.A. Kasenova);
- cultural approach (V.A. Slastenin, E.V. Bondarevskaya, I.F. Isaev, N.B. Krylova, Zh.N. Abisheva);
- axiological approach (A. Maslow, S.L. Rubinstein, S. Schwartz, T. Biedenbach);
- theoretical foundations of continuous professional education (E.F. Zeer, A.M. Novikov, Ye.I. Burdina);
- concepts of project-based learning and pedagogical design (J. Dewey, W. Kilpatrick, E.I. Isaev, E.S. Polat, R.M. Antropova, E.V. Kotova, A.D. Kariyev, Zh.A. Mamytbaeva, E.N. Dauyenov).

**Research methods.** In our study, theoretical methods were used, including a theoretical analysis of regulatory documents and relevant literature, comparative analysis, and modeling. Empirical research methods were also employed, including surveys and testing, self-assessment and reflection, pedagogical observation, and analysis of work products. To test the effectiveness of the developed model for the formation of the master students' culture of the project activity in the teacher training process, a pedagogical experiment was used. A combination of data analysis methods, including qualitative and quantitative analysis (SPSS Statistics) and mathematical statistics, was used to describe and validate the obtained results.

**Research stages.** The research was conducted from 2019 to 2026.

**First stage** (2019-2020). At this stage, the theoretical substantiation of the research problem was carried out. Kazakh and international experience in master's degree pedagogical training was studied, enabling the characteristics of pedagogical training to be characterized. The principles for selecting the content of master's degree

teacher training were outlined, and the characteristics and structure of project activity within this process were revealed. Psychological, pedagogical, and methodological research on the project activity culture of master's degree students during pedagogical training was analyzed, enabling the identification and substantiation of the essence and structure of the project activity culture.

**Second stage (2020-2021).** During this stage, work was conducted to develop and theoretically substantiate a diagnostic assessment of the components of master students' culture of the project activity during pedagogical training. A model for the formation of a culture of the project activity among master's students was also developed and theoretically substantiated. This model was developed as a structural and functional framework, reflecting the logic of the step-by-step formation of a culture of the project activity within a master's program. Furthermore, targeted work was undertaken to determine the initial level of formation of a project activity culture among master's students – a diagnostic experiment was conducted, using a newly developed diagnostic tool aimed at assessing the components of a project activity culture.

**Third stage (2021-2026).** During this stage, a pedagogical experiment was conducted to implement a model for the formation of a culture of the project activity among master's students and evaluate its effectiveness. The experiment was conducted in the university's natural educational environment and included a formative and control phase. The data obtained were processed and analyzed, conclusions were drawn, and a dissertation was prepared.

**Experimental base of the research:** NJSC «Toraighyrov University», NJSC «Pavlodar Pedagogical University named after Alkey Margulan».

**The scientific novelty of the research** is as follows:

- the characteristics and principles for selecting the content of pedagogical training for master's students were identified and systematically characterized;
- the concept of «culture of the project activity» was clarified as an integrative personal-professional construct, encompassing a value-based attitude toward project-based activity, the formation of the necessary knowledge and skills for their implementation, thinking skills that enable analysis and creative solution of professional problems, and the ability to reflectively understand one's own activity.
- the structure of the culture of project activity of master's students was identified and theoretically substantiated, consisting of the following components: an axiological component, a cognitive-activity component, a creative component, and a reflective component;
- a diagnostic tool for studying the components of the project activity culture of master's students was developed and tested;
- the effectiveness of a model for the formation of the master students' culture of the project activity during pedagogical training was developed and experimentally tested.

**The theoretical significance of this research** lies in its refinement of the conceptual framework of pedagogical science regarding the culture of the project activity among master's students. This research deepens the theoretical aspects of master's student pedagogical training and project-based learning. The results obtained

can be used as a theoretical basis for further research on project activity as a culturally shaping factor in master's student professional development.

**The practical significance of this research** lies in the development and implementation of two courses in the educational process of the university for individuals who have completed a Professional Master's and are mastering a pedagogical profile program: the course «Project activity in education» and the course «Development of teacher soft skills». Furthermore, as a part of the «Pedagogy of Higher Education» course for master's students majoring in scientific and pedagogical studies, the results of the research were incorporated into the Syllabus of the discipline, and a textbook, «Project Activity of Master's Students in the Study of Pedagogy of Higher Education», was developed and published. The developed courses, textbook, and research findings can be used in future during educational process not only at the university but also in continuing education courses for current teachers.

**The main provisions submitted for defense:**

1. The specifics of master's degree pedagogical training abroad and in the Republic of Kazakhstan are determined by the specific educational systems. The main differences are related to the flexibility of educational programs, an emphasis on research, and the practical application of knowledge. The principles for selecting the content of master's degree pedagogical training include: the principle of conformity between educational content and the development requirements of society, science, culture, and the individual; the principle of axiologizing; the principle of the proactive (predictive) nature of the formation of educational content; the principle of humanizing the content of professional education; the principle of fundamentalization; the principle of variability; and the principle of continuous professional and pedagogical development.

2. Project activity is an activity of a unique nature, aimed at achieving a pre-planned result: the creation of a specific original product or service.

3. Project activity culture is an integrated personal and professional construct that encompasses a value-based approach to project activity, the formation of the necessary knowledge and skills for their implementation, thinking patterns that enable analysis and creative solution of professional problems, and the ability to reflectively understand one's own activity. It includes an axiological component, a cognitive-activity component, a creative component, and a reflective component. Assessing the components of master's students' project activity culture during pedagogical training includes questionnaires, tests on the theoretical foundations of project activity, and project analysis.

4. The model for the formation of a culture of the project activity among master's students in the teacher training process includes a target block reflecting the purpose, objectives, and principles of the model; a procedural-technological block containing a system of pedagogical conditions, forms, methods, and tools aimed at the gradual development of the axiological, cognitive-activity, creative, and reflective components of a culture of project activity; and a results block presenting the levels of development of a culture of project activity among master's degree students.

5. The pedagogical experiment is aimed at implementing a model for the formation of a culture of the project activity among master's students; its results confirm the effectiveness of the proposed model.

**The validity and reliability of the research results** were achieved through the use of current philosophical and psychological-pedagogical theories, the logical construction of the research structure, the comprehensive use of complementary methods, the implementation of a pedagogical experiment in real conditions of the educational process and statistical processing of the results obtained.

**The testing and implementation of the research results** were carried out in the process of presenting the main provisions of the research at International Scientific Conferences – 3 publications (Pavlodar, Republic of Kazakhstan, 2020; Ufa, Russian Federation, 2020; Murmansk, Russian Federation, 2024), in journals recommended by the Committee on Scientific and Technical Cooperation of the Ministry of Education and Science of the Republic of Kazakhstan – 3 publications, in a journal included in the Scopus/Web of Science information databases – 1 publication.

**Dissertation structure.** The dissertation consists of an introduction, three sections, a conclusion, a list of references, and appendices. The dissertation contains 31 figures, 31 tables, and 4 appendices.

**The introduction** substantiates the relevance of the research topic, determines the level of its development, formulates the goal, objectives, object and subject of the research, puts forward a hypothesis, describes the methods, stages and basis of the research, reveals the scientific novelty, theoretical and practical significance of the dissertation work, presents the provisions submitted for defense, and also provides information on the approbation and structure of the dissertation.

**The first section**, «Theoretical Foundations of Teacher Training of Master's Students», describes the specifics of teacher training of master's students in foreign countries and in the Republic of Kazakhstan, the principles for selecting the content of pedagogical training of master's students, and also reveals the specifics and structure of project activity in the context of their pedagogical training.

**The second section**, «Theoretical and Methodological Foundations of Forming a Culture of Project Activity of Master's Students in the Process of Teacher Training», identifies and substantiates the essence and structure of the culture of project activity of master's students, including axiological, cognitive-activity, creative and reflexive components, diagnostic tools for studying its components, and proposes a model for forming this culture in the educational process.

**The third section**, «Experimental work on the formation of a culture of project activity of master's students in the process of teacher training», presents the results of the initial level of the culture of project activity of master's students, describes a pedagogical experiment on the implementation of the developed model, and evaluates its effectiveness based on the analysis and interpretation of the obtained experimental data.

**The conclusion** summarizes the results of the research and formulates the main findings confirming the hypothesis.

**The list of references** includes 211 titles.

**The appendices** contain additional materials that ensure the completeness and reliability of the research, including test assignments on knowledge of the theoretical foundations of project activity, implementation reports, and materials for reflective support of the project activity of master's students.