

ANNOTATION
of the dissertation work for the degree of Doctor of Philosophy (PhD)
in the specialty "6D010300 - Pedagogy and Psychology" on the theme
«Development of dual training in the system of vocational education
(experience of Germany and Kazakhstan)» by Smanova Alua

INTRODUCTION

The relevance of the research. Currently, the strategic objectives and requirements for the training of competitive qualified specialists, which require Kazakhstan to join the top thirty countries of the world, also increase the need for effective use of advanced foreign experience. From the conceptual point of view, it is necessary to implement under the influence of comparative pedagogy of theoretical research on the basis of domestic and foreign professional schools, related to the development of historical and prognostic conditions in them. In addition, the study of the experience of education of advanced countries will introduce favorable pedagogical innovations necessary for the education system and education of their country, including in the field of vocational education.

In this regard, it is noted that "quality education should become the basis of industry and innovative development of Kazakhstan" in the Messages of the Head of state Nursultan Nazarbayev to the people. Special attention was paid to the necessity of competitiveness of future specialists, including the modern teacher, to be qualified specialists, professionally competent, inclined to practical experience, interested in their future professional activities, formed professional skills, educated and qualified specialists. In this regard, the state program of education development of the Republic of Kazakhstan for the years 2016-2019 priority of influence of the teacher on the formation of human capital, of particular importance in solving the problems of the education system towards improving the quality of content and competitiveness of their training set the task of modernization of the system of higher and postgraduate education in the context of advanced global trends [1-3].

This increases the need to strengthen practice-oriented training, that is, the practical training of future specialists, including teachers, for their future professional activities in the process of higher education.

It is certainly in the professional training of future teachers, pedagogical higher education institutions have always been in partnership with educational organizations in which their students were trained. However, the relationship is limited to cooperation only during the teaching practice in schools and colleges, it covers only one component of the necessary practical training of future teachers. In this regard, dual training is extremely important, implementing parallel implementation of theoretical and practical training in pedagogical education in the educational institution and in the workplace, in our case kindergartens, schools and colleges.

It is important to study the features of dual training of working professionals in the vocational education system of Germany for scientific reasons. Since during

the period of historical origins, dual training was widespread in Arab, Asian and European countries in terms of educating the student in the "master-student" system, dual training in vocational education was started in Germany. German pedagogical scientist Georg Kershenshteing in the concept of vocational education in a dual form, which influenced the formation of the movement of European teachers abroad in the 19-20th centuries, it proves that the basic method of education and training of young workers before the war was legislatively adopted in Germany. This form of professional education appeared as a product of social partnership in the mechanism of mutual cooperation of various public associations of training highly qualified specialists which correspond to the needs of the government, the employee, the trade union and the labor market.

It was noted the importance of dual vocational education development in the article of N. A. Nazarbayev "Social modernization of Kazakhstan: 20 steps to the Society of Universal Labor". It was also indicated the need to create modern centers of applied qualifications, which make it possible to reduce the mass shortage of specialists [4]. In this regard, the state gave specific instructions on the introduction of the method of dual training in the colleges of the Republic. At the XIX-th session of the Assembly of people of Kazakhstan the list of supporting enterprises was determined for the Fund "Samruk-Kazyna". It was instructed to develop a plan for the gradual introduction of the model of dual training.

In this regard, the Government of the Republic of Kazakhstan, the MES have identified specific ways to implement this plan. A Road map of dual training was developed and approved by the government decree, which provides for the creation of educational centers for training specialists in colleges and universities and in the workplace, institutes for advanced training and retraining of specialists and covering measures for their implementation .

At the moment, dual training in Kazakhstan is successfully carried out in organizations of post-secondary technical and vocational education (TVET). This experience has shown that the introduction of dual training eliminates the gap between theory and practice, students are encouraged to acquire knowledge and practical skills, business leaders are interested in practical training of their employees, etc.

However, the dual education in Kazakhstan is still undeveloped "virgin". Its development reinforces the need for a large, very responsible joint work that requires hard work of heads of educational institutions of various levels, scientists and teachers-practitioners.

It is also obvious that for the introduction of dual training in pedagogical education it is necessary first of all to develop its theoretical and methodological foundations. From this point of view, the need to study primarily the development of dual training in vocational education in Germany, which is considered the birthplace of dual training, and the experience of the introduction of dual training in secondary vocational education in Kazakhstan.

It can not be denied that the studies of scientists near and far abroad studied a number of aspects of the problem of dual training in vocational education. For example, it considers the modern concept and theory of vocational education (S. Y.

Batyshev, A. P. Belyaeva, A. T. Glazunov, A. Y. Naing, A. M. Novikov, I. P. Smirnov, S. D. Smirnov, E. V. Tkachenko, J. Dewey, M. S. Knowles, etc.); theoretical and practical bases of the organization of professional education on the methodological basis of the dual principle (A. Shelten, K. V. Stratman, N. Stegmann, etc.).

Actual problems of improvement of higher professional education are investigated in the works of S. I. Arkhangelsk, A. A. Verbitsky, H. A. Selezneva, Yu. G. Tatur, K. W. Doering and other scientists, especially vocational education was considered the versatile O. V. Dolzhenko, V. P. Zinchenko, B. C. Mikhalkin, V. L. Shatunovsky and other researchers. Theoretical and methodological bases of development of practical skills of future teachers in the system of professional pedagogical education are reflected in the works of scientists such as G. A. Umanov, N. D. Hops, G. T. Khairullin, Sh. T. Taubayeva and other teachers researchers.

C. B. Bezrukova, A. O. Velizhanina, N. V. Kuzmina, G. M. Romantsev, L. E. V. Tkachenko and other researchers studying the problem of duality in engineering-pedagogical education, Z. A. Berdnikov, M. N. Klarina, I. E. Mamaev, S. M. Shokhin and other scientists substantiate a dual education from the perspective of additional forms of professional education.

Innovative technologies and concepts of training in vocational education are also not left out of the field of view of scientists as the object of research (V. I. Andreev, V. V. Guzeev, D. N. Kavtaradze, V. Ya. Lyaudis, L. W. Anderson, M. D. Gall, R. Lewis, N. Paine, etc.)

Deep analysis of the problems of lifelong learning in vocational education is given in the works of foreign scientists: (J. Barzun, D. Bridges, R. H. Dave, R. Snager, etc.), Russian and Kazakh researchers: (Baidenko B. S. Gershunsky, V. P. Zinchenko, L. G. Petryaevskogo, A. I. Subetto, and others) (B. Mailybaev, R. K. Yerzhanova, E. I. Burdina, A. E. Espolov, N. R. Shametov, S. Z. Kokanbaev, etc.)

Theoretical and practical research on the origin and development of the dual system of training future specialists were carried out in a number of countries in Western Europe: Germany, Austria, the Netherlands, the UK (Shelten, K. V. Stratman, H. Stegmann, A. Rahkochkine, etc.). In Russia dual training originated from the ideas of social partnership in the dual education and begun to be studied from the position of the new principles of education (V. A. Polyakov, I. P. Smirnov, E. V. Tkachenko, A. K. Kornev, V. A. Timofeeva, etc.). In the works of Kazakhstan researchers addresses such concerns dual education, as conditions of improvement of professional training of future teachers (U. M. Abdigapbarova, K. J. Buzaubakova, D. P. Kozhamzharova, G. N. Kumisbekova, S. A. Aubakirova, N. B. Zhienbayeva, G. O. Abdullayeva, etc.), the impact of the dual training for the development of competence, professional and personal qualities of future specialists in vocational training for their professions (S. A. Zholdasbekova, Zh. O. Nurzhanbayeva, E. T. Tolybaeva, R. N. Kebekbaeva, P. N. Baltash, etc.).

The experience of the dual system of training of foreign countries studied O. D. Fedotova, A. N. Kirillovsky, S. P. Romanov and other scientists, pedagogical features of training in the dual system were considered by L. I. Korneeva, M. A.

Shuvalova. D. A. Toropov in the study, the problem of providing quality of vocational education in Germany were fully disclosed features of the dual education, L. N. Samoldina justified of dual target training of students of secondary special educational institutions. O. V. Pristupa focused on the theoretical and methodological foundations of dual training in the disclosure of the pedagogical foundations of training school graduates in Germany to work. A. L. Busygin investigated the problem of improving the pedagogical competence of teachers in improving the efficiency of the educational process in higher educational institutions.

There are also studies on the comparison of educational systems in Germany and Kazakhstan. For example, A. K. Kusaiynov, B. T. Iskakov considered the state and development of education in Germany and Kazakhstan, G. E. Utypova studied the development of the system of training primary school teachers in the two above-mentioned countries, A.A.Zhaitapova studied career guidance and problems of upbringing for high school students in Germany and Zh. M. Baigozhina studied the features of training of social teachers in Germany.

In recent years, the system of dual training began to carry out dissertation research of national scientists. In particular, J. O. Kurganbaeva explored the pedagogical basis for the formation of work values in the system of dual learning in College students, J. E. Alsynbaeva considered the preparation of teachers of vocational education to implement the dual training.

The analysis carried out in the above works showed that the problem of the development of dual training in the system of vocational training in the practice of Germany and Kazakhstan has not yet been the object of special research in domestic science.

At the same time, today's educational practice shows the effectiveness of dual training introduced into the educational process of secondary vocational education organizations in Kazakhstan, the prerequisites and scientific and methodological foundations of the introduction of dual training in the practice of teachers and their training are not studied, causing a contradiction between demand and theoretical research in today's practice:

- the need to improve the practical training of future teachers in higher education in a new direction on the basis of advanced world trends and insufficient study of the development of the system of foreign professional education;

- between the need to use in professional pedagogical education elements of the dual system of training in vocational education in Germany and Kazakhstan and the lack of development of its scientific foundations;

- among the need to develop guidelines for the use of elements of dual training in the educational process of the university and the lack of knowledge of the didactic foundations of dual training in vocational education in Germany and Kazakhstan.

The historical study of these issues, theoretical justification and development of recommendations for implementation in practice identified the **problem of research** and was the basis for the choice of the theme of the thesis "**Development**

of dual training in the system of vocational education (on the experience of Germany and Kazakhstan)”.

The purpose of the study: to justify theoretically the development of dual training in the system of vocational education on the basis of the experience of Germany and Kazakhstan and to give methodological recommendations on the use of its elements in the training of future teachers.

Object of research: dual training in the system of vocational education.

Subject of research: the process of development of dual training in the system of vocational education in Germany and Kazakhstan

Hypothesis of the research: if the historical, economic, social and pedagogical prerequisites for the development of dual education in the vocational education system of Germany and Kazakhstan are determined, the system of teaching folk crafts is based on the source of the dual education; the meaning of the concept of dual education in vocational education is clarified, didactic foundations are defined; If the elements of dual education in vocational training of future teachers of Germany are identified and the possibility of their use in higher pedagogical education in Kazakhstan is determined, the possibilities for introducing elements of dual education in the process of vocational training of future teachers are expanding, as the development of dual education in vocational education on the basis of the experience of Germany and Kazakhstan will be provided by scientific and methodological recommendations.

Research objectives:

1. to determine historical, economic, social and pedagogical prerequisites for the development of dual education in the system of vocational education in Germany and Kazakhstan
2. To substantiate the system of teaching folk crafts from the point of view of the source of the beginning of dual training
3. To define the essence and features of dual training in the system of professional education
4. To define the didactic bases of dual training in the system of professional education of Germany and Kazakhstan
5. To develop scientific and methodological recommendations determining the elements of dual education in the system of professional training of future teachers in Germany and their use in higher pedagogical education in Kazakhstan.

The leading idea of the research: Practical use of the developed methodical recommendations on introduction of elements of dual training in the process of professional training of future teachers in higher educational institutions on the basis of definition of historical, theoretical and methodological, methodical bases of development of dual training in system of professional education of Germany and Kazakhstan will promote professional-personal qualities, education, competence-based, practical-oriented, competitive teachers.

Theoretical and methodological bases of research: the system of general theories aimed at the development of personality; historical and cognitive conceptual thoughts; system, activity, synergetic, etc. approaches in pedagogical research; principles of understanding and application of education as an open,

complex, self-developing system; methodological conceptual provisions of general pedagogy; socio-philosophical foundations of education; principles of modern didactics; theories of technologization of education; personality-oriented psychological theories; theoretical concepts of dual training, methodological guidelines, etc.

Sources of research: research of domestic and foreign scientists, which deals with the problems of duality, dual training, dual education, dual system of primary vocational education in Germany; decisions and decisions of the Government of the Republic of Kazakhstan on the introduction of dual training in organizations of post-secondary technical and vocational education (TVET) of Kazakhstan, state programs, Road map, conceptual and normative documents of the Ministry of education and science, JSC "Samruk-Kazyna", national chamber of entrepreneurs "Atameken" related to dual training; best practices of scientists in Germany and Kazakhstan, based on scientific achievements in the field of dual training; scientific and methodological journals; research and practical experience of doctoral students.

Research methods: Theoretical analysis of scientific works, dissertations concerning the problem of research; conceptual foundations of dual training in vocational education; methods of theoretical examination (phenomenological, logical, historical-comparative, comparative-comparative), synthesis, generalization and degradation of complex research problems of different scientific views in the understanding of practical experience; comparative retrospective method-comparative analysis of the development of the national system of vocational education; statistical expertise-analysis of the features of the development of dual training in vocational education.; questionnaire-interview-evaluation of the effectiveness of dual training in vocational education, etc.

The research base: Abay Kazakh National Pedagogical University, Taraz state university, (Kazakhstan); FAU Erlangen-Nuremberg, Leipzig University (Germany).

Scientific novelty and theoretical significance of the research:

1. Historical, economic, social and pedagogical prerequisites for the development of dual training in the system of vocational education in Germany and Kazakhstan are determined
2. The system of teaching folk crafts is based from the point of view of the source of the beginning of dual training
3. The essence and features of dual training in the system of professional education are defined
4. Didactic bases of dual training in the system of professional education of Germany and Kazakhstan are defined
5. Elements of dual training in the system of professional training of future teachers of Germany are defined and scientific and methodical recommendations on their use in higher pedagogical education in Kazakhstan are developed

The practical significance of the research:

- Educational and methodical manual named "Scientific bases of dual-oriented training in the system of professional education";

- Author's certificate for the teaching manual "Scientific bases of dual-oriented training in the system of professional education";

- Scientific and methodological recommendations on the introduction of elements of dual education in the process of professional training of future teachers of Kazakhstan

The results obtained during the dissertation research and specific scientific and methodological recommendations, research materials can be used at the highest level of secondary schools, gymnasiums and lyceums, in the practice of colleges, in higher educational institutions, in the system of professional development and retraining of teachers.

Provisions to be protected

- The emergence and development of duality in the system of vocational education in Germany and Kazakhstan from the point of view of training in a combined educational and production environment is due to certain historical, economic and socio-pedagogical prerequisites defined in the research.

- In Germany, which is the homeland of dual education, its development is determined by historical periods: 1. The emergence of DE initiatives in the Middle Ages; 2-17-18th centuries vocational training in enterprises and Sunday schools; 3-19th centuries - system of specialists' professional development; 4 - Development of DE in the 20th centuries in accordance with the Law of Vocational Education (1969) (50% theoretical, 50% - practical training); 5-th stage (20-30% of the dual system formed in primary vocational education, 70-80% in industry).

- Training of the population in handicrafts is a source of dual training, its conduct in the production environment (workshops, shops, blacksmiths, family settlements, etc.), the formation of skills with the training of the student (from skills on the testimony); introduction to the profession (jeweler, carpenter, joiner, carpenter, weaver, tailor, etc.), the development of professional and personal qualities (respect for art, love the profession, diligence, etc.). Elements of DE that appeared on the territory of Kazakhstan from an early period, since the training of the profession takes place on the territory of Kazakhstan in the 20th century at the school of needlework opened by Y. Altynsarin, in the 20th century it continued in art colleges, industrial enterprises. The DE is currently implementing the development of technical and vocational education institutions (580 colleges) on the basis of Road map approved by the Government of the Republic of Kazakhstan from 2014 (40% in the educational institution and 60% in industry).

- - "Dual education in the vocational education system" is a three-methodological axiological (equality of knowledge goals and practical values), ontological (modular competence approach), technological (organization of educational and professional activities) and an innovative form of training of specialists on the basis of integration of interaction.

- conceptual model of dual training in the system of vocational education in Germany provides axiological, ontological, technological components of training of future specialists in unity with the competent authorities regulating and legitimizing the interaction of vocational school and production;

- didactic substantiation of dual training in the system of professional education includes normative educational and methodical documents developed on the basis of the law of professional education and professional standard of the future specialist, the Charter, rules of the organization of professional education in the workplace, functions, methods, pedagogical means, forms of training and is based on the interaction of "educational institution-production-coordinating organization", subject-subjective relations, clearly agreed, approved decisions, adopted resolutions.;

- - Scientific and methodological recommendations on the use of elements of dual training in higher pedagogical education, developed on the basis of research on the development of dual training in vocational education in the practice of Germany and Kazakhstan, contain recommendations of theoretical and methodological, organizational and legal, practice-oriented content and effectively provide the practical part of the training of future teachers.

The research approbation. The main conclusions, theoretical and practical results of the research work were discussed at international conferences:

1. Білім беру жүйесіндегі дуальді оқытудың тиімділігі. // «Қазақ хандығының құрылуының тарихи тамырлары» атты халықаралық ғылыми-тәжірбиелік конференция материалдары. –Алматы, 2015. –Б.263-265.

2. Кәсіби білім беру жағдайында тұлғаның құзыреттілігін қалыптастыру. //«Қазақстан халықаралық білім беру кеңістігінде» атты Жас ғалымдарға арналған ҮІІІ халықаралық ғылыми конф. материалдары. –А., 2016. – Б.48-51

3. Германия мемлекетінің болашақ мамандарды даярлаудағы дуальді оқыту тәжірбиесінен. //«Қазақстан республикасының педагогикалық білімін жүйелі жаңғырту: мәселелері, шешу жолдары» атты халықаралық ғылыми-тәжірбиелік конференция материалдары. –Алматы, 2016. –Б. 589-591.

4. Дуальді оқыту – сапалы маман даярлау негізі. //«Қазақстан Республикасының әлемдік кеңістіктегі білім мен ғылымның даму тарихы мен заманауи тенденциялары» атты Халықаралық ғылыми-тәжірбиелік конференция. – Алматы, 2016. - Б.64-68

5. Білім беру жүйесінде дуальді оқытудың мәні. International Scientific and Practical Conference WORLD Science. The goals of the World Science. – Dubai UAE, 2017. – P. 24-27.

6. Development of the dual form of professional education of Germany. International Scientific and Practical Conference. «International Trends in Science and Technology». – Warsaw, Poland May, 2018. –P-7-11.

7. Polylingual specialists training and dual education as ways to create varied training conditions in the republic of Kazakhstan. Materials of the XXI international research and practice conference. –Munich, Germany 2018. – P 55-70.

Publications.

The content of the research work is reflected in 14 publications, including 5 articles published in scientific journals recommended by the Committee for

control in the field of education and science of the MES, 1 article - in a scientific publication included in the database Scopus, 4 articles - in collections of materials of international scientific conferences, 3 of them –in the materials of scientific conferences near and far abroad, as well as published 1 in educational-methodical manual.

The reliability, recognition and implementation in practice of the results of the dissertation research is provided by the fact that were guided by the theoretical and methodological provisions set out in domestic and foreign historical and pedagogical, psychological and pedagogical works, as well as conceptual justification, the use of historical, theoretical, comparative methods in accordance with the purpose of the research, the generalization of the results.

The structure of the research thesis. The dissertation consists of an introduction, three sections, a conclusion, a list of references and appendices.

The Introduction substantiates the relevance of the research problem, indicates the scientific apparatus: the purpose, object, subject, scientific hypothesis, objectives, theoretical and methodological foundations, sources of research, stages, methods, research base, marked scientific novelty, theoretical and practical significance, formulated provisions for the defense

The first chapter "Historical foundations of dual education in the system of professional education" carries out the analysis of researches of domestic and foreign scientists on the problem of research. In the system of vocational education in Germany, the prerequisites for the emergence and development of dual training are substantiated. On the basis of studying the system of teaching folk crafts, it is proved that it is the basis of the beginning of dual training. The state of implementation of dual training in the system of vocational education in Kazakhstan is described in detail.

The second chapter "Scientific bases of dual training in the system of vocational education" clarifies the meaning and specificity of the concept of dual training in the system of vocational education. The methodological bases of dual target training of future specialists in the system of professional education are revealed and stated. The characteristic of types and conceptual model of dual training in system of professional education of Germany is given.

The third chapter "Methodical bases of dual training in the system of professional education" carries out the analysis of normative-legal documents of dual training in the system of professional education is carried out. The didactic substantiation of use of opportunities of dual training in professional pedagogical education is developed and the maintenance is given. The elements of dual education introduced into the system of professional training of future teachers in Germany are determined. Scientific and methodological recommendations on their use in the professional training of teachers in Kazakhstan will be developed. The goal and objectives of the study are solved and implemented.

Conclusion formulates the main principles of research, results, methodological recommendations and the prospects of research for researchers are offered.

The Appendix presents methodological materials on dual training in vocational education.