THE IMPLEMENTATION OF DUAL-ORIENTED TRAINING IN THE PROFESSIONAL TRAINING OF THE MODERN TEACHER

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VIC, SPAIN
Modernization of pedagogical education in our country depends on the teacher personality - a key figure of transformation

The importance of improving the modern teacher training

The search for the improvement of professional training of a modern teacher is important.
The relevance of improving the modern teacher training

From the perspective of the practice request

• The need to improve the status of the teacher in modern society;
• Decrease in the number of graduates of pedagogical higher education institutions employed by specialty

In terms of the requirements of pedagogical science

• The need to develop modern approaches to teacher training in line with the modernization of the education system of Kazakhstan
• Excessive theorization of professional pedagogical training at the university

The gap between the system of training at the university and the demands of real teaching practice
The dual system involves the direct participation of enterprises in the professional education of students. Dual education is a type of learning in which the theoretical part of the training takes place on the basis of an educational organization, and the practical part takes place...
Dual education in Kazakhstan is implemented in organizations of post-secondary technical and vocational education

The head of state Nursultan Nazarbayev in his Address to the people of Kazakhstan in 2012: “..It is important to develop dual professional education. There is a need for modern centers of industry qualifications, which will allow to overcome the shortage of personnel of mass professions ...

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<th>Law &quot;On Education&quot; of the Republic of Kazakhstan, Rules for the organization of dual training</th>
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<td>Introduced: the concept of &quot;dual education&quot;; Dual Learning Agreement; in the educational programs of VET in the conditions of dual education: theory / practice = 40% / 60%.</td>
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<th>Labor Code</th>
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<td>Article 119 &quot;Dual Learning&quot;: admission to the work experience of the time of passage of industrial training; compensation payment to the trainee at least one MCSI enterprise.</td>
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<th>Creation of the Kazakhstan model of pre-school education in the VET system</th>
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<td>• Order of the Ministry of Education and Science of the Republic of Kazakhstan No. 219 of August 27, 2012; № 50 dated 01/21/2016</td>
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<tr>
<td>• Decree of the Government of the Republic of Kazakhstan dated October 15, 2014 No. 1093 &quot;Roadmap of the dual education system&quot;</td>
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Implementation of the Roadmap implementation
dual learning

Main results:

- Roadmap developed on the introduction of dual training by request of enterprises
- Created 13 training centers for staff development at industry associations and enterprises
- 10 enterprises took under the patronage (trust management) of state colleges. 11 contracts signed between enterprises and colleges
- Revealed contradictions in 16 LAs, creating administrative barriers to the introduction of dual training
- Designed and offered in Mazhilis Parliament's draft law "On vocational education"
- Determined frame requirements more 8363 enterprises and 11 industry associations throughout the country
- The supervisory boards of 10 universities include enterprises from the SPE in the ratio of 30% of all participants. NPP initiated and approved regulations on supervisory boards of universities
- At the initiative of NPP, a program of international internships for engineers and technicians abroad is being implemented. 87 specialists from 13 regions were approved by the NPP
- Agreement reached with the Chamber of Commerce and Industry of Trier about the implementation of an international project road map development
- RPP created 2 MBA Business Schools for middle managers and big business
- 6 student business incubators created to involve youth in entrepreneurship
- A republican program has been developed for the development of vocational guidance work for schoolchildren of the Republic of Kazakhstan
During the 2014-2017 academic years, more than 10,000 specialists will be trained by order of enterprises with subsequent employment. All colleges have been granted the status “experimental sites”, in order to increase practical training to 60%.

The curricula of colleges are necessarily agreed and approved by enterprises.

Roadmap for the implementation of dual training

The map for dual training was approved by the government of Kazakhstan on October 15, 2014.
this experience has shown that it bridges the gap between theory and practice;
creates a high motivation to gain knowledge and skills in work;
the interest of heads of relevant institutions in the practical training of their employees, etc.

However, dual pedagogical education in the Republic of Kazakhstan today is virgin, for the development of which requires serious and painstaking joint work of scientists and practicing teachers, heads of organizations of various levels of education.
The introduction of dual training in pedagogical education of the Republic of Kazakhstan will contribute to:

- Increase the motivation of schoolchildren and students to acquire a pedagogical specialty
- Maximum immersion in the field of teaching
- Opportunities for targeted employment of graduates of a pedagogical university
- Enhance professional self-determination of future teachers
Problems of implementation of dual education in higher pedagogical education

1. Weak development of theoretical and methodological foundations of dual training in pedagogical education
2. Difficulties of practical implementation of dual education in pedagogical education
3. Lack of state regulatory framework for the implementation of dual education in higher pedagogical education
The search for effective ways to improve the future teacher's training process allowed us to take part in a research project for a grant from the MES of the Republic of Kazakhstan on the topic: “Dually-oriented education as a condition for improving the professional training of a future teacher”, under the guidance of Prof. U. Abdigapbarova. M.

The lack of scientifically based concepts and theories of dually-oriented training in the future teacher’s vocational training, as well as the novelty of using the term itself and the relevance of teaching practice in young professional teachers who do not spend time on professional adaptation and retraining, determine the relevance and specific semantic content entered into the scientific - pedagogical terminology, concepts - dual-oriented learning, a theoretical analysis of the research was carried out eme and regulatory documentation, as well as a survey was conducted, a survey of graduates of the pedagogical university and employers
## Problems of realization of dual training in higher pedagogical education

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<th>№</th>
<th>Research problem</th>
<th>Authors</th>
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<tr>
<td>1</td>
<td>The problem of theoretical and technological support of higher pedagogical education</td>
<td>J. Dewey, M.S. Knowles, A.V. Торкунов, И. Матвеев, Г.Б. Морозов, Н.Д. Хмель, Б. Абдыкаримова, Ш.Т. Таубаева и др.</td>
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<td>3</td>
<td>Reducing the quality of subject training of the future teacher</td>
<td>В.В. Лунин, Н.Е. Кузьменко, Т.С. Назарова, Н.В. Садовников, Н.А. Читалин и др.</td>
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<td>5</td>
<td>Reduction of educational and professional motivation of pedagogical University students</td>
<td>Е.В. Бондаревская, С.М. Кетько, Е.В. Лопаткин, С.А. Пакулина, Е.В. Романова, К.А. Дуйсенбаева, В.В. Егорова, Т.И. Есполова, К. Устемирова и др.</td>
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<td>6</td>
<td>Not an objective selection in the teaching profession</td>
<td>В.А. Болотов, Н.Р. Шаметова, Л.А. Шкутина и др.</td>
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Research on theoretical and scientific-practical developments in the study of the problems of creation and development of dual training in the system of vocational education

- Western Europe - Germany, Austria, Netherlands, UK (Shelten, K. V. Stratman, H. Stegmann, A. Rakhkochkine etc.)

- In Russia, dual education has developed thanks to the idea of social partnership organized by on the basis of principles of the organization of education, proposed by V. A. Polyakov, I. P. Smirnov, E. V. Tkachenko, A. K. Kornev, V. A. Deshevym

- Kazakh scientists are also interested in this problem (S. A. Zholdasbekov, E. T. Tolybaeva, Kabakbaev R.N., P. N. Baltas, K. J. Taubaev, J. N. Cmoscow, S. A. Ubscribe, D. P. Ahmarova, U. M. Abdigapparova, etc.) in line with that of the dual form of training, they are considered as an alternative to professional teacher training.
Survey of graduates pedagogical university and employers

was conducted in seven universities of Kazakhstan: Kazakh national pedagogical University named after Abai, Kazakh state teacher training University, ENU named after L. N. Gumilev, Karsu named after E. A. Buketov, Arkalyk state pedagogical Institute named after S.Altynsarina, Aktobe state pedagogical Institute, etc.

The survey was conducted in the period from 6.04.2018 – 11.05.2018, which was attended by 1760 graduates of the above universities of various specialties (5B010200 – Pedagogy and methodology of primary education, 5B010500 – Defectology, 5B010300 – Pedagogy and psychology, 5B012300 – Social pedagogy and self-knowledge)

The questionnaire, which includes 18 questions, allowed to determine the degree of satisfaction of future teachers with the received pedagogical education at the University, to identify the difficulties they face in their professional activities and wishes to improve professional training at the University.
Quantitative distribution of graduates of pedagogical universities by specialties
Almost all of the surveyed graduates (1725 graduates – 95%) consider the profession of teacher one of the main in the life of modern society and in General, satisfied with the level of training in universities.

1443 graduates, which is 82% of the total number of respondents, noted the need to increase hours of practice while studying at the University. Among them, 370 – 21% of graduates noted the expediency of increasing the hours for the study of special disciplines in the course of professional training of future teachers.

Among the answers, the questions of implementation of practice-oriented training in the development of practice-oriented disciplines are reflected. So, graduates (of 986 56%) said that such subjects must be studied directly in the school.
The survey of employers (2.04.2018-20.05.2018) was attended by 379 Directors, Deputy Directors of schools and teacher training colleges from Almaty regions, Almaty, Taraz, Aktobe.

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<th>Quality indicator</th>
<th>Importance</th>
<th>Satisfaction</th>
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<td></td>
<td>Average score</td>
<td>Average score</td>
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<tr>
<td>Theoretical knowledge</td>
<td>2.9</td>
<td>78</td>
</tr>
<tr>
<td>Practical training</td>
<td>3.5</td>
<td>60</td>
</tr>
<tr>
<td>Social and psychological skills (communication skills)</td>
<td>2.3</td>
<td>72</td>
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The distribution of responses of employers on the criterion of the relationship with the pedagogical universities.

Distribution of indicators of employers' satisfaction with the quality of training of graduates.

![Bar chart showing distribution of responses of employers on the criterion of the relationship with the pedagogical universities.](image-url)
In considering the introduction of dual training in pedagogical education there is a need to study the history of the dual system of education. The ancestor of the dual training system is considered to be Germany.

**Germany**

- The history of the dual education pre-medieval period
- In the 17th and 18th centuries, professional training in enterprises and in Sunday schools
- Nineteenth century. professional development in Sunday schools
- since 1969 in Germany, professional training has been guided by the principle of dual education: 50% (theory), 50% (practice)
- currently 70-80% of the training takes place in production
- 3-4 days in the enterprise and 1-2 days in college
- Study programs: 1/3 OOD and 2/3 specialty subjects
- The main training costs are borne by the company.
On the basis of the comparative analysis of traditional and dual-oriented training in Germany and the Republic of Kazakhstan, for the widespread introduction of elements of dual training aimed at changing the ideological and functional-didactic system of the learning process at the University, representatives of:

- Center of pedagogical education Dr. Anna Ginkel;
- consulting center for the passage of four types of practices Professor Klaus Wilde;
- Dean of the faculty of Humanities and social Sciences Professor Wolfhagen Peiffer;
- the center of teachers' training and research at the University of Leipzig Alexander Biedermann, Simon Polworth;
- head. the Department of pedagogy of diversity Universiteit Nuremberg-Erlangen, Prof. Dr. Anatoli Rakhkochkine
- Professor of Abai Kazakh national pedagogical university. Professor Abdigapbarova U. M.,
- Zhienbaeva N. B. we came to a common opinion that the characteristics of traditional and dual-oriented approaches obtained as a result of comparative analysis create and they came to a common opinion that the characteristics of traditional and dual-oriented approaches obtained as a result of comparative analysis create prerequisites for identifying the place and role of the process of dual-oriented education
Interviews with graduates of the University Friedrich Alexander

Meeting with Dean, Professor Wolfgang Pfeiffer

Consultation with Dr. C. Wild

Interviews with graduates of the University Friedrich Alexander
Ways of realization of dual training elements at Abai Kazakh national pedagogical university

1. Practice-oriented (through the ideas of social partnership)
2. Theoretical and methodological (development of scientific bases of dual training in pedagogical education)
3. Organizational and regulatory (development and approval of legal documents that ensure the effective implementation of dual training)
<table>
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<tr>
<th>Theoretical-methodological</th>
<th>Organizational and regulatory</th>
<th>Practice-oriented</th>
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<tr>
<td>Research base (Abai Kazakh national pedagogical university has a scientific reserve): -subject of dissertation research of undergraduates and doctoral students of the Department of pedagogy and psychology on the introduction of dual training in pedagogical education of Kazakhstan; Discussion of the problem at the level of the Republic – annual conference of scientists and teachers; Publishing activity of the faculty of the Department on the introduction of dual training in pedagogical education; Reflected in 20 publications;</td>
<td>1. the state educational standards of higher education (bachelor's degree) from 2016. - 40% of subjects to study on the production Developed and approved working curricula in the specialty 5B010300 taking into account the requirements of SES. 2 Project Regulations on dual education in the system of higher pedagogical education 3. Conclusion of contracts with teacher training colleges (Esik Humanitarian and economic College, AGPK №2) 4. Involvement of employers in the development of working curricula, programs and the work of the SAC 5. Introduced in modular curricula and forms of undergraduate and graduate specialties 5V010200 – Pedagogy and methodology of elementary education and 6M010500 – Defectology discipline Bases of the dual training</td>
<td>1. At the initiative of the Department in 2015. Created NMK: school-College-UniversityContracts with schools (Almaty №132, 6, 159, 12) 2. The directions of cooperation on the basis of social partnership are defined- 3. NMC work plan was approved and implemented</td>
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Created on the initiative of the Department of Pedagogy and Psychology of the Kazakh National Pedagogical University named after Abai in 2015 and includes:

Almaty Humanitarian-Pedagogical College №2

Scientific-methodical complex: school-college-university

- public utility school - gymnasium №132
- public utility school - gymnasium №12
- Department of Pedagogy of Psychology
  KazNPU named after Abai

- public utility school - gymnasium №159
Activity directions of Scientific Methodical Complex

Interaction and cooperation of all units in line with educational and scientific-methodical activities

Organization of cooperative research work

Combined work aimed at increasing the productivity of the psychological service of the school, college and university
Cooperative work aimed at increasing the productivity of the psychological service of the school, college and university

Assistance to schools and colleges in the implementation of psycho diagnostics

Psychological and pedagogical prevention and education among students, parents and teachers “Computer and boarding prevention - addictions among adolescents and high school students”, “Adaptation of first-graders to school”, “Crisis of adolescence”, “How to increase motivation for teaching in children”, “Prevention of self-destructive behavior of modern schoolchildren”

Corrective-developmental activities

Advisory psychological and pedagogical assist of an individual and group character by teacher to parents and pupils

Head of the Psychologist Council – candidate of psychological sciences, associate professor G. O. Abdullayeva
Interaction and cooperation of all units in line with educational and scientific-methodical activities

- Advising school teachers and college teachers
- Attendance of the lecture and seminars of the teaching staff of the department

Cooperative leadership of student practice
University and students college

Head of the Teacher Council – doctor of pedagogical sciences, professor Khan N.N.

Head of the Mentor Council – doctor of pedagogical sciences, professor Turgunbayeva B.A.
Organization of cooperative research

1st Republican Scientific-Practical Conference of Scientists and Teachers “Integrating the activities of the school-college-university in a dual-oriented education” May 12-13, 2016

2nd Republican Scientific Practical Conference of Scientists and Teachers “Dual teaching in pedagogical education: experience, approaches, problems” May 18, 2017

Scientific Project Management students of schools Scientific conference of schoolchildren “Steps in science” May 22, 2017

Master classes for overcomers college and school leadership scientific research the work of students

Head of the research Council - doctor of pedagogical sciences, professor Absatova M.A.
As part of the research project and based on the analysis of the work of NMK, we have developed guidelines:

➢ In various forms of independent work of students with teachers include mentors (elementary school teachers);

➢ In accordance with the modular format of university studies, working curricula include elective disciplines on dual education (for example, specialty 6D010500 defectology developed EMCD “Dual education in training of pathologists”, “Fundamentals of dual education” for the PMEL specialty);

➢ Psychological and pedagogical map of accompanying a student (class), student (group), developed in conjunction with university and college teachers;

➢ Improving the practical training of students in the process of the extended day (self-training) of primary school students;

➢ Cooperation of schools, colleges and universities in the design of scientific research (trilingual, digitalization, self-knowledge, etc.);

➢ Scientific and practical activities (conferences, teaching aids, textbooks, seminars, teaching and methodical complexes) in the directions of "university in school", "school in university" "school-college-university"
However, the substantiation and functioning of the content of dual education in the training of future teachers is a complex systemic problem, since it requires the creation of a single educational space - an educational institution (HEI), an employer (pedagogical colleges, preschool institutions and schools), government bodies (MES RK Management departments Education) and the National Chamber of Entrepreneurs (“Atameken” Regional Chambers of Entrepreneurs)
Abai Kazakh National Pedagogical University as a scientific and methodological center for the introduction of dual education in the system of higher pedagogical education of Kazakhstan

MES RK
Departments of Education Management

Pedagogical universities

National Chamber of Entrepreneurs "Atameken"
Regional Chambers of Entrepreneurs

Pedagogical colleges, preschool institutions and schools
Possible risks of the introduction of dual training in teacher education

1. Difficulties in implementation due to insufficient material, methodological and personnel security of educational organizations (schools, colleges and universities)
2. Difficulties in assessing the effectiveness of implementation due to the lack of quality indicators of dual education in higher pedagogical education
3. Saving students overload, which negatively affects their physical and psychological health
4. Formal approach by teachers of schools, colleges and universities in the implementation of dual education
5. The costs of excessive workload of school teachers and teachers of colleges and universities, which has a negative impact on the effectiveness of the introduction of dual education
Prospects for the introduction of dual education in higher pedagogical education

1. Continue the search for the scientific and methodological foundations of dual education in teacher education:
   - To develop a model of a modern teacher (teacher)
   - Categorical conceptual apparatus
   - Define the principles of the introduction of dual education in teacher education
   - Determine the criteria and levels of readiness for pedagogical activity among graduates of a pedagogical university in conditions of dual-oriented education

2. Implement the selected mechanisms for the introduction of dual education through social partnership between the MES RK and the regional Department of Education, the National Chamber of Entrepreneurs, potential employers (pre-school institutions, schools and teacher colleges) and pedagogical universities
   - To develop a Regulation on dual education in higher pedagogical education
   - Identify the functions of each link in this process.
   - To make proposals for changes in educational programs for training teachers (to expand the range of practice-oriented disciplines and forms of conducting classes, for example, to conduct practical classes on the basis of schools or colleges

3. Specify ways to implement dual learning based on selected areas (theoretical and methodological, organizational, regulatory and practice-oriented)
   - Exit with a proposal to create a scientific and methodical research laboratory at KazNPU named after Abay for the introduction of dual training in teacher education in Kazakhstan
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URL: http://books.google.ru/books?hl=de&id=_cvr7kSfh84C&dq=duale+bildung&printsec=frontcover&source=web&ots=fWjrPixWA1&sig=LJk0jnKvCJdnbo5ii7sTcCw494#PPP14,M1
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Thank you for attention!