



"Desk Research" report on
"Dual training in vocational education and training institutions"

Developed as part of the project:

"DUAL. Transnational cooperation towards supporting dual education in vocational education and training institutions"

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I. Description of the methodology used and method of collecting information.

The report was based on the analysis of existing data in order to illustrate the state of Polish vocational education. This allowed an objective and extensive diagnosis of Polish vocational education, both in the historical context and in the context of the latest changes and reforms introducing the dual education system in vocational education and training institutions.

The implementation of desk research is not related to the acquisition of new information, but only the ordering, processing and analysis of previously collected research data, both external and internal. The data may come from sources such as: literature, ready-made studies, review of previously carried out surveys, review of statistics of the Central Statistical Office, Eurostat and other sources of statistical data.

The subject of this desk research analysis are, in particular, the following:

- a) situation of Polish vocational education before 1999;
- b) assumptions underlying the reform of the 1999 education system (in the context of vocational education);
- c) status of Polish vocational education after political changes;
- d) setting up the latest educational reform (in the field of vocational education);
- e) principles of functioning of the dual education model.

II. The essence and importance of vocational education.

Vocational education is an important link in modern education.

In the past, often underestimated, treated as an inferior educational path, is now becoming more and more important. In the era of changes in the labor market, pace and scope of modernization of the Polish economy, the role of education related to the preparation of people to perform various professions is very significant in the context of the current and prospective challenges of the labor market. An important role in adapting vocational education to these challenges and the needs of the modern labor market is played by teachers, mainly teachers of vocational subjects. They are expected to give future graduates of vocational education not only knowledge and relevant professional qualifications, but also to equip them with features desirable both in life and in the labor market, so that they are - in the context of contemporary transformations - more flexible and mobile¹.

The structural components of the vocational training process include²:

- a) the content of vocational education usually determined by the curriculum;
- b) students of a vocational school, subject to pedagogical influences;
- c) vocational school teachers whose main task is to organize the learning process;
- d) the conditions under which a given process takes place.

The goals of vocational education are determined by specific content of education, and these are included in the curricula in force in specific organizational and curricular units of education. We distinguish general objectives of vocational education and detailed objectives of vocational education. General (directional) goals assume the shaping of the human personality, taking into account the formation of the right relation to the world of values, society, the other man, himself, the world of culture and nature.

¹ K. Sadowska, T. Sadowski (red.), Edukacja zawodowa – wybrane problemy i konteksty, Wydawnictwo Naukowe Łużyckiej Wyższej Szkoły Humanistycznej im. J.B. Solfy w Żarach, Żary 2014, s. 5.

² Ibidem, s. 6.

Specific objectives (instrumental - operational) are related to the process of mastering knowledge, skills, professional habits, conditioning the proper preparation for the profession, the process of mastering typical methods, means and forms of professional activity, also refer to the development of special talents, motivations, interests and skills necessary to perform specific profession, development of skills and habits to continually improve qualifications through vocational training, moreover - to become ready for the championship in the profession³.

The main purpose of vocational education, in connection with the above, is "mastering professional knowledge in these areas that are common to all occupations covered by a given vocational education. Mastering typical methods, means and forms of professional activity, developing special talents and interests necessary to perform a given profession and getting used to continuous improvement of qualifications"⁴.

The aim of vocational education is to educate highly qualified personnel for modern economy. The beginning of negative changes in the vocational education system dates back to the early nineties of the twentieth century. The political transformation caused the collapse of many enterprises that financed company vocational schools and provided jobs to school graduates. In addition, the reform of education carried out at the end of the nineties resulted in a decrease in the prestige and importance of vocational schools for students. The importance of general education, cheaper financing and opening access to higher education for young people has gained importance. The effects of the collapse of vocational education at that time are noticeable to this day. The number of vocational schools in Poland is systematically decreasing. In 2005, there were 5,009 of them, and in 2015 only 4,026. At the same time, there are no employees on the labor market who have practical skills related to the performance of a particular profession. Employers pay attention to the unsatisfactory quality of vocational education⁵.

³ S. M. Kwiatkowski, *Kształcenie zawodowe – wyzwania, priorytety, standardy*, Wyd. Instytutu Badań Edukacyjnych, Warszawa 2008, s.22.

⁴ E. Goźlińska, F. Szlosek, *Podręczny słownik nauczyciela kształcenia zawodowego*, Wydawnictwo i Zakład Poligrafii Instytutu Technologii Eksploatacji, Radom 1997, s. 58–59.

⁵ A. Szymańska (red.), *Analiza sytuacji szkolnictwa zawodowego w województwie łódzkim*, Regionalne Obserwatorium Terytorialne Województwa Łódzkiego, Łódź 2017, s. 5.



Since 2012, the Ministry of National Education has started introducing changes to the vocational education system. These included, among others, the reorganization of the structure of vocational education, the modification of the classification of occupations, the implementation of the modernized basis of vocational education, and the unification of the examination system confirming vocational qualifications. In 2015, the regulation concerning the dual education system came into force, which assumes that theoretical and general education takes place at school, while the practical skills are acquired by employers. Another change in the system of vocational education entered into force on 1 September 2017, in connection with the adoption of the Act of 14 December 2016 on Educational Law (Journal of Laws of 2017, item 59). This law not only eliminates gymnasium but also introduces changes to the vocational education system. The most important change resulting from the provisions of the Act is the introduction of basic vocational schools - First Degree Schools from 2017, and from the year 2020 - Secondary Schools.

The legislator justifying changes in the vocational education system indicates that currently it is not adjusted to the needs of the labor market, and moreover basic vocational schools are negatively perceived - as the schools of worse choice. Among the development challenges facing vocational education is not only improving the popularity of vocational education among young people, but also adapting to the needs of the changing labor market and adaptation to the declining number of students resulting from unfavorable demographic processes⁶.

⁶ A. Szymańska (red.), Analiza sytuacji szkolnictwa zawodowego w województwie łódzkim, Regionalne Obserwatorium Terytorialne Województwa Łódzkiego, Łódź 2017, s. 5.

III. The situation of Polish vocational education before 1999.

In the lands that were part of the Second Polish Republic, there were over a dozen technical schools before the First World War educating the cadres for industry, construction, railways and mining. Vocational education during the Second Polish Republic it was a mosaic of types and organizational forms, hence it is not easy to put them in a uniform pattern. Also, individual vocational schools were not always homogeneous institutions and consisted of teams of schools educating at different levels and in various fields and specialties. Many examples of vocational schools functioning in Poland at the time, characterized by a high level of education, whose graduates were sought by employers, such as the private school of H. Wawelberg and S. Rotwand in Warsaw or the Industrial School in Lviv, which educates, among others, mechanics and electrotechnicians⁷.

The most important educational event of the inter-war period was the adoption of the law on the system of education on March 11, 1932. It has gone down in history as the Jędrzejewicz reform, from the name of the then Minister of Education. At that time, the school system of the Republic was fundamentally rebuilt. A lot of space was devoted to professional education in it. Setting up gymnasiums and vocational high schools gave vocational schools the rank given to general education so far. The reform of vocational education combined with the plans of the country's economic development, especially with the simultaneous construction of the Central Industrial District. Three types of vocational schools were distinguished: apprenticeship, vocational secondary schools for two to four years, for students who completed the second program level of a public school, and vocational secondary schools under the foundation of the general secondary school, lasting two or three years, allowing graduates to start higher education. The purpose of vocational high schools was to deepen theoretical knowledge and prepare for higher technical or commercial studies. They gave the opportunity to undertake

⁷ J. Miąso, Szkoły zawodowe w Polsce w latach 1918–1939, Wydawnictwo Polskiej Akademii Nauk, Zakład Narodowy Ossolińskich, Wrocław 1988, s. 31.

university studies in the same fields of knowledge, and after completing supplementary examinations, studies in other fields⁸.

In the first years after World War II, vocational education experienced significant difficulties resulting from war damage. After the war, schools of various levels before 1939 spontaneously resumed their activity, but at the same time the communist authorities sought to create a new school administration. Special tasks were set before vocational education, which was to prepare employees for the emerging industry and other developing areas of the economy. For this reason, vocational education was excluded from the Ministry of Education, and vocational schools were subordinate to relevant ministries (in connection with the field of education). In 1951, a resolution of the Presidium of the Government was introduced on 23 June introducing a new system of vocational education, which formed the following types of schools: basic vocational school (initially two and then three years), technical college (three years, then four and five years), vocational school (SPZ) as well as agricultural adoption (SPR), in which education lasted from several months to 1.5 years, intended for young people over 16 years of age, who did not graduate from a seven-year primary school (including agricultural development school), basic vocational schools and evening technique and correspondence for youth and working adults as well as specialized vocational courses⁹.

The development of vocational education in People's Poland can be divided into four periods¹⁰:

- a) years 1944 - 1949 - the period of "emerging" from debris and organizational and program evolution adapted to the needs of the state "building socialism";
- b) 1950-1956 - a period of partial centralization of vocational school management in connection with the establishment of the Central Vocational School Office, the introduction of a new vocational school system, a period of far-reaching specialization;

⁸ R. Wroczyński, *Dzieje oświaty polskiej*, t. 2, Wydawnictwo „Żak”, Warszawa 1996, s. 112.

⁹ M. Fedorowicz, A. Wojciuk, *Kontynuacja przemian. Raport o stanie edukacji 2011*, Instytut Badań Edukacyjnych, Warszawa 2012, s. 172.

¹⁰ Cz. Siwiński, *Zmiany strukturalno-organizacyjne w szkolnictwie zawodowym PRL*, Wyd. UAM, Poznań 1981, s.11.

c) 1956 - 1961 - the period of searching for new organizational forms, moving away from excessive specialization, adapting the school system to the current needs of the state,

d) 1961 - 1989 - period of implementation and modification of the assumptions of the reform of the education system of July 15, 1961.

As a result of the resolution of the Central Committee of the Polish United Workers' Party (PZPR) of January 21, 1961, new solutions for education, including vocational education, were introduced on the reform of education. This resolution became the basis for the "Act on the development of the education system and upbringing" of July 15, 1961. All vocational schools have been divided into two groups: primary and secondary schools. The basic schools included workshop, in-company and agricultural apprenticeship schools, high-school and technical secondary schools were separated¹¹.

This law, which initiated another reform of the Polish education and upbringing system in vocational education, and which was implemented only in 1967, assumed that the education and upbringing of qualified workers and workers (including farmers) will take place in institutions basic vocational schools, which must provide, in addition to preparation related to the profession, appropriate general education necessary in the process of further education. Apprenticeship will become an integral part of the education program and will take place in socialized workplaces. Basic vocational schools recruit primary school graduates. For those preparing for the profession of farmer, the agricultural development school was to be organized. The cycle of education in elementary schools was planned for a period of 2 - 3 years, depending on the specialty, according to the nomenclature of the competition and specialties revised in 1965¹².

Dissemination of secondary education was one of the objectives of the education policy of the PRL authorities. The most common type of school was a basic vocational school (about 55% of the elementary school graduates) who prepared qualified workers who received work after graduation. This school was for the vast majority of young people,

¹¹ Cz. Siwiński, *Zmiany...* op.cit., s. 64-65.

¹² Cz. Siwiński, *Zmiany...* op.cit., s. 65.

mainly from working and peasant families, the last level of education. The basic her disadvantage was narrowly understood specialized education and a very modest general education program, which in consequence meant poor preparation for continuing education at a higher school. Most of the young people studying in vocational schools gained technical professions (about 60%), economic professions (about 15%) and agricultural professions (about 10%). The material and financial base of vocational education also left much to be desired. In the early 1970s, education often took place in two shifts¹³.

Political and socio-economic changes that followed 1989 resulted in the need to prepare students to participate in another than before political, social and, most importantly, economic reality. Special tasks faced the area of vocational education. Proposals for reforms appeared already in 1990. By decision of the minister of education from September 8, 1990, a team was established to develop the assumptions of the concept of developing vocational education. The index of problems requiring a solution include, among others: the need to educate teaching staff for vocational training as a basic condition for the success of the reform, changing the classification of occupations and the specialties of vocational education, changing the content of vocational education and system their development, practical training and conditions for its implementation, management of vocational education, orientation and vocational guidance as a support for choosing the path of education, and in later career helping in retraining. The most important event of this period was the adoption in 1991 of the act about the education system (September 7th, 1991)¹⁴, which fundamentally changed the conditions for the functioning of schools. It introduces the term "program minimum of specialist vocational subjects", which had a fundamental impact on the shaping of curricula in this area. It should be noted that, apart from this change, the area of vocational education was treated marginally in the Act. A statutory provision concerning the construction of teaching programs has forced (after the liquidation of departmental institutes there was no institution dealing with programs) appointment in 1993, at the Educational Research

¹³ M. Fedorowicz, A. Wojciuk, *Kontynuacja...* op.cit., s. 172-173.

¹⁴ Ustawa z dnia 7 września 1991 r. o systemie oświaty [Dz.U. 1991 nr 95 poz. 425].

Institute, Workshop of Vocational Training Programs, which conducted coordination work on the development of program documentation until 1997¹⁵.

The reform of vocational education initiated in 1990 was of systemic and program nature. Her guiding idea, as H. Górecka believes, was to move away from narrow-profile education to broad-profile education¹⁶. From 1991, vocational training took place in three-year primary schools, after which the graduate gained the competence of a skilled worker or an employee with equivalent qualifications. These schools allowed for the acquisition of general and basic vocational education, and allowed for the extension of knowledge and skills in further education within 3-year-old technicians, and at the secondary level in equivalent techniques and schools, depending from 5 or 4 year specialties¹⁷. The science in vocational high schools lasted 4 years, and graduates of this type of institutions received a school-leaving certificate, moreover, after passing the matriculation examination - a secondary school-leaving certificate and relevant professional titles¹⁸.

Discussions on the reform of education, including vocational education, lasted from the beginning of the transformation period. For a long time, however, no binding decisions regarding this area have been made. Meanwhile, the number of vocational schools and students interested in such education decreased, and material resources did not guarantee the implementation of vocational education of an appropriate quality. In studies and reports that were created in the first period of changes, attention was paid to the need to build new relationships between vocational schools and employers, the changing role of the craft sector, the development of vocational training and training institutions, and the development of a vocational guidance system¹⁹.

¹⁵ E. Drogosz-Zabłocka, Z perspektywy siedmiu lat. Zmiany w kształceniu, „Szkoła zawodowa” 1997, nr 10, s. 3.

¹⁶ Hasło: Szkolnictwo w Polsce w XIX i XX wieku, H. Górecka, [w:] Encyklopedia Pedagogiczna XXI wieku, tom VI, Wydawnictwo Akademickie Żak, Warszawa 2007, s. 206.

¹⁷ Ibidem, s. 206.

¹⁸ K. Sadowska, T. Sadowski (red.), Edukacja... op.cit., s. 21

¹⁹ W. Adamski, M. Baethge, O. Bertrand, P. Grootgings, A. Józefowicz, Edukacja w okresie transformacji. Analiza porównawcza i propozycje modernizacji kształcenia zawodowego w Polsce, IFiS PAN, Warszawa 1993, s. 187.



The 1998 reform, prepared by the Minister of Education, Mirosław Handke, was a success in the sense that the announced changes were adopted in the form of legal acts that give grounds for changes in the school system and introducing major changes in the area of quality assurance. A Central Examination Board was established and external examinations were introduced, including those confirming professional qualifications, called professional examinations. The reform of the education system, initiated in 1998, devoted little space to the professional segment. Its main assumptions concerned dissemination of secondary and higher education, equalizing educational opportunities and improving the quality of education understood as an integral process of education and upbringing²⁰.

²⁰ Reforma systemu edukacji. Projekt, Ministerstwo Edukacji Narodowej - Wydawnictwa Szkolne i Pedagogiczne, Warszawa 1998, s. 10.

IV. Vocational education after the 1999 reform of the education system.

The official general reform of the education system in Poland was the reform implemented in force on 1 September 1999. In January 1998, the Ministry of National Education announced a document called "Reform of the education system - a preliminary concept". In this concept, vocational education was treated in a marginal way. The analysis of this issue was made twice during the meetings of the Committee of Pedagogical Sciences of the Polish Academy of Sciences with the participation of the Minister of National Education - M. Handke. The effect of the actions taken was the appearance in May 1998 of a new concept of reforming the education system in Poland, in which, however, the vocational school still did not gain a significant dimension²¹.

In November 2001, the previous assumptions of the reform were abandoned. Pursuant to the amended Act of 1999, four types of upper secondary schools were introduced, including: general secondary school, profiled secondary school (vocational), 4 - year technical college, and 2 - 3 - year basic vocational school. Apart from the specified types of secondary schools, the vocational education could also be taken within post-secondary schools (in which the period of study was, depending on the need, from half a year to 25 years)²².

As a result of the educational reform, which came into force in 1999, the structure of education changed fundamentally, mainly through the introduction of a new school system and a new type of school - junior high school. However, changes in vocational education were smaller than originally planned. In the initial assumptions of the reform, it was assumed that the two-tier education at upper secondary level (general and vocational) would be abolished and only two-year vocational schools would be left in the system, the completion of which would enable graduates to obtain the title of a skilled worker. The arguments for adopting the reform in this form were focused on promoting secondary education as the primary goal of educational change. The way to achieve it was to be a profiled high school, diversified programmatically, but uniform in organizational terms. The goals of vocational education were to continue: profiled

²¹ Hasło: Szkolnictwo... op.cit., s. 317-318

²² Ibidem, s. 319.

vocational high school, post-secondary vocational schools and two-year vocational schools²³.

In the system of education introduced in the 1999 reform, the choice of career path was possible at the fourth stage of education, after graduating from the gymnasium. A high school graduate could continue his education in the following vocational high schools²⁴:

a) basic vocational school - with a teaching period of not less than 2 years and no more than 3 years, completion of which enables a diploma confirming vocational qualifications after passing the exam, as well as further education in secondary schools or supplementary techniques;

b) technical college - education lasts 4 years, their completion allows you to obtain a diploma confirming your professional qualifications after passing the exam and obtaining a secondary school leaving certificate after passing the matriculation examination and continuing education in higher education institutions; it is also possible to continue studying at a post-secondary school (does not require a baccalaureate);

c) profiled high school - educating in general professional profiles, their completion allows to obtain a secondary school-leaving certificate after passing the matriculation examination; specialized secondary schools educated in the three-year cycle and gave the opportunity for general professional preparation, graduates of such schools can not take the exam confirming their professional qualifications; getting a job for students of profiled secondary schools was possible after graduation from post-secondary school;

d) special training schools for work - with a three-year cycle of study, for students with moderate or severe mental retardation and for students with disabilities; completing this type of school allows you to obtain a certificate confirming the preparation for work.

Graduates of basic vocational schools were able to complete their qualifications in three-year supplementary techniques, the completion of which enabled them to obtain a diploma confirming professional qualifications after passing the exam, as well as to obtain a secondary school-leaving certificate after passing the matriculation

²³ W. Adamski i wsp., Edukacja... op.cit., s. 174.

²⁴ W. Adamski i wsp., Edukacja... op.cit., s. 176.

examination. Vocational education also included post-secondary schools for people with secondary education. Teaching period in these schools could not be longer than 2.5 years, and their completion allowed to obtain a diploma confirming professional qualifications after passing the vocational examination²⁵.

Education in vocational schools included general, theoretical and practical vocational education, which could be implemented by practical classes and apprenticeships. Practical learning of the profession could take place in lifelong learning institutions, practical training institutions, school workshops and workshops, school auxiliary farms, at employers or in individual farms. Practical classes were usually conducted at school (eg in workshops or school workshops) and were aimed at mastering by students the professional skills necessary to work in a given profession. In contrast, apprenticeships were most often organized at the employer to apply and deepen the knowledge and skills acquired in real working conditions. All types of vocational schools could function both as schools for youth and as schools for adults. An adult school is a unit in which a separate learning organization is applied and to which persons over 18 are admitted. The amendment to the Act on the education system of 2012 expired basic vocational schools for adults and the technique for adults. Supplementing professional qualifications for these people was from that moment only possible in the form of exchange rates²⁶.

The second component of vocational education, in accordance with the 1999 reform, was extracurricular forms of apprenticeship. They were conducted by²⁷:

- a) Centers of Practical Education (CKP),
- b) Incessant Education Centers (CKU),
- c) Centers of Further Education and Training (ODDZ),
- d) Voluntary Labor Corps (OHP),

²⁵ W. Adamski i wsp., *Edukacja...* op.cit., s. 176.

²⁶ Ibidem, s. 177

²⁷ Ibidem, s. 177

e) employers with whom vocational training was carried out.

Practical training centers, lifelong learning centers and centers for further education and training made it possible to obtain and supplement general knowledge, skills and professional qualifications. The main tasks of CKU are preparing an offer of lifelong learning, increasing employment opportunities, cooperation with employers in this area, as well as developing and issuing methodical and didactic materials for the conducted education. The Center could also carry out tasks in the field of practical vocational training, resulting from the curriculum for a given profession. Practical training centers conducted practical classes for students of vocational education schools in the scope of all or part of the curriculum for a given profession, including a modular curriculum for a given profession. On the other hand, centers for further education and training were responsible, among others, for organizing the theoretical education of young people employed by employers in order to learn a profession. All the above institutions could organize and conduct lifelong learning to meet the obligation to study. The legislator also envisaged the creation of a nationwide CKU facility, one of the main tasks of which was to prepare solutions for the development of lifelong learning in the education system, in particular for the purpose of obtaining or raising professional qualifications by adults. In the end, such a facility was not created²⁸.

Another element of non-school forms of vocational training is the Voluntary Labor Corps (OHP). It is a budgetary unit supervised by the minister competent for labor issues. OHP perform tasks for the benefit of young people over 15 in the field of counteracting marginalization and social exclusion and employment. The main functions of this organization include: supporting the education system through social, professional and economic activation of youth, undertaking activities aimed at improving professional qualifications or retraining, supporting initiatives to counteract unemployment and education in the work process, including organizing employment and organizing international youth cooperation²⁹.

²⁸ W. Adamski i wsp., *Edukacja...* op.cit., s. 177.

²⁹ *Ibidem*, s. 177

Another type of vocational training was the professional preparation of young people at the employer, intended for people who graduated from high school and have at least 16 years of age. Education at the employer could take the form of apprenticeship or apprenticeship to perform a specific job. Similarly to adolescents, adults could also take up an apprenticeship with an employer. Both in the school and non-school system, the completion of a given type of school did not entail confirmation of professional qualifications. These were obtained only after passing the appropriate exam. This was related to the implementation of the postulate of separation of the teaching process from the process of verifying knowledge and skills acquired during the course of learning³⁰.

The concept of vocational education, proposed in the reform of Minister Handke, has not been implemented. Among secondary schools, there was again a technique in which education lasts 4 years. In addition, in order to ensure the patency of education after finishing primary school, high schools and supplementary techniques were introduced, in which education lasts two and three years. It was also decided to return to the original name of the school educating qualified workers - the basic vocational school. The system also leaves reforms proposed for profiled lyceums, which in practice proved to be unmatched to the educational needs of Polish education. Year by year, their number decreased, and their graduates poorly passed the final exams, which is confirmed by statistical data. In the amended Act on the education system, from 1 September 2012 the first classes of the profiled secondary school for youth were liquidated, and in the following years, further classes until the total extinction of education in these schools in 2015³¹.

The resignation from the idea of profiled secondary schools, which were originally intended to replace the technique, resulted from the experience in the functioning of this type of schools. Graduates of specialized secondary schools increased the number of unemployed, because their professional skills were insufficient to pass professional exams, and additionally, they did not score well on the matura exams (70% pass rate), which closed the way to college³². Therefore, from 2012, profiled secondary schools

³⁰ W. Adamski i wsp., *Edukacja...* op.cit., s. 177.

³¹ Ibidem, s. 177

³² M. Mazik-Gorzelańczyk, *Kształcenie zawodowe w Polsce w perspektywie zmian i potrzeb gospodarki*, Friedrich-Ebert-Stiftung, Warszawa 2016, s.7.

have been withdrawn from the school structure. Ten years after the announcement of the reform, in the school year 2008/2009, education in as many as 83% of upper secondary schools ended with a matriculation examination³³.

A thorough change of the vocational education model at the secondary level was introduced in 2011. One of the elements of the introduced changes was the departure from profiled lyceums. The purpose of the changes was to increase efficiency

and the effectiveness of the vocational education system and its harmonization with the labor market through:

a) modification of the classification of vocational education occupations

taking into account the division of competitions into qualification separately confirmed in the education process;

b) implementation of a new core curriculum for vocational education;

c) adaptation of the education structure to the new model of vocational and continuing education, including:

- unification of the education cycle in a basic vocational school;
- consolidation of vocational and continuing education in vocational and continuing education centers;
- enabling adults to acquire vocational qualifications in the form of courses (qualification courses and professional skills); qualifying vocational courses for adults can be run not only by schools but also by educational institutions and training companies;

³³ J. Stasiak, System edukacji wobec wyzwań rynku pracy w Polsce „Acta Universitatis Lodziensis, Folia Oeconomica” 2011, nr 248, s. 345.

- d) harmonizing the system of examinations confirming professional qualifications and introducing the possibility of taking examinations after non-formal (courses) and informal learning;
- e) including vocational schools in the system of lifelong learning;
- f) liquidation (until September 2014) of profiled secondary schools.

The amendment to the Act on the education system concerning changes in education entered into force on 1 September 2012. Regulation of the Minister of National Education of 23 December 2011 on the classification of vocational education occupations introduced education in the area of 200 professions and 252 qualifications distinguished within the competition. Individual professions were assigned to eight areas of education.

Education in schools providing vocational training is based on two core curricula: general education and vocational education. The new core curriculum defines knowledge and professional skills as well as personal and social competences. In line with the European Qualifications Framework, they have been described as expected learning outcomes. The new core curriculum is in line with the Polish Qualifications Framework. Occupations included in the classification of vocational education occupations are one-, two- and three-qualifying. Seven professions are occupations in the area of artistic education, for which no qualifications have been distinguished. Each qualification is confirmed by a separate external vocational exam. Individuals who are vocational school students, who have finished the qualification courses or who have learned themselves (while working) can take exams.

After getting all the qualifications required in a given profession, you get a diploma that confirms it. The new core curriculum for all professions was introduced by the Regulation of the Minister of National Education of February 7, 2012 on the core curriculum of vocational education. They became effective from September 1, 2012. The core curriculum was defined in three parts:

- a) Part I sets out the general objectives and tasks of vocational education and includes a table containing a list of qualifications, including their links with occupations and learning outcomes;
- b) Part II defines: learning outcomes common to all occupations, learning outcomes common to professions within the area of education constituting a foundation for training in a profession or group of occupations and learning outcomes relevant to qualifications distinguished in occupations;
- c) Part III defines the description of education in particular occupations, including: digital names and symbols of occupations, according to the classification of vocational education occupations, education objectives in occupations, names of qualifications distinguished in occupations, conditions of vocational education, the minimum number of hours of vocational education and the possibility of obtaining additional qualifications in occupations within the area of education specified in the classification of vocational education occupations.

On February 24, 2012, a regulation was issued on the conditions and manner of assessing, classifying and promoting pupils and students as well as conducting tests and examinations in public schools (Journal of Laws of 2012 item 262) - describing the principles of new vocational examinations - from qualifications, and as a supplement - the ordinance of the Minister of National Education of 14 September 2012 on the apprentice examination, the master examination and the examination exam, carried out by the examination commissions of chambers of crafts.

The professional examination may be carried out throughout the school year on a date determined by the director of the district committee, in agreement with the director of the Central Commission.

The system of external examinations confirming the qualifications in the profession also includes qualifying students of vocational courses and people who confirm the qualifications in the extramural profession. After passing the exam confirming the qualification in the profession, an adult also receives a certificate confirming the qualification.

Confirmation of all qualifications distinguished in the profession and obtaining the appropriate level of education is a condition for obtaining a diploma confirming professional qualifications and a diploma supplement.

In the context of the issues related to the assumptions of the 1999 education reform, it should be emphasized that the education management system in Poland, including vocational education, belongs to one of the most decentralized in the world³⁴. The establishment, running and financing of vocational schools for youth was delegated primarily to the level of poviats, and subsequently to the self-governments of provinces and communes. Local government units can outsource educational tasks to non-governmental organizations that conduct statutory activities in the field of education. In this situation, non-public establishments offering lifelong learning are financed from public funds. The responsibilities of local government units (LGUs) also include the financing of school forms of adult vocational education.

Participation in JST public revenues - corresponding to their tasks - is guaranteed by the Constitution of the Republic of Poland, and the most important provisions regarding the financing of schools and educational institutions included the Act on the education system and the Act on revenues of individual LGUs. Expenditure from the state budget for education and upbringing, including vocational training, is defined annually by the budget act. By virtue of the Act, public and non-public vocational schools with public powers were financed from the budgets of local government units (LGUs). Learning in public schools is free. Income of non-public schools are fees from tuition fees and co-financing from LGU budgets³⁵.

The assumptions underlying the reform of education in 1999, to some extent in a systemic way, marginalized vocational education. This coincided with the demographic boom and economic slowdown in 1997-2002 and the associated liquidation of many jobs. Plants that maintained vocational schools and provided employment for graduates fell. There is a conviction in society that only higher education, or matriculation, guarantees a dignified life. Vocational schools began to be perceived as places for the

³⁴ M. Herbst, J. Herczynski, A. Levitas, *Finansowanie oświaty w Polsce – diagnoza, dylematy, możliwości*, Wyd. Scholar, Warszawa 2009, s. 111.

³⁵ W. Adamski i wsp., *Edukacja...* op.cit., s. 178.



weakest students who had no educational ambitions and could not cope with other forms of education. They lost their prestige and educational power. Graduates of "professions" earned the least, because the market was saturated with workers and craftsmen. The qualifications required in the conditions of modern economy, based on higher technologies and in the scope of services, which concern new consumer phenomena (eg mechatronics, marketers) were searched for. Choosing the high schools was conducive to lowering the requirements for candidates for this type of school, in the conditions of increased competition between the institutions in seeking a student. It has largely influenced this by demographic. In the years 2000-2010, the number of students in Polish primary, middle and upper secondary schools decreased from 7.05 million to 5.21 million, which meant a decrease of 26%³⁶.

³⁶ M. Mazik-Gorzelańczyk, *Kształcenie...* op.cit., s. 7.

V. The condition of Polish vocational education after political changes.

Polish system changes from the turn of the 80's and 90's also included the education system, and in particular the system of vocational education. The opening of the economy and the change in the production structure led to the bankruptcy of many production plants and, consequently, to a decrease in the demand for qualified manual workers. On the other hand, the economic transformation caused an increase in the demand for well-educated people and, as a result, an ever better reward for graduates. The growing demand for white-collar workers with their limited, though gradually increasing, supply translated into low unemployment and higher wages among university graduates³⁷.

The process described above confirms the educational preferences of Poles. They have shifted from vocational education to general education in high schools and then to university. An additional catalyst for change was the growing educational aspirations of Polish society. All these factors led to an educational boom consisting in the growing popularity of higher education. The increase in scholarisation at the higher education level was accompanied by increasingly rare decision-making of primary and then junior high school graduates to continue their education in basic vocational schools. At the same time, the percentage of technical graduates changed to a small extent: between 1995 and 2013, the share of people with basic vocational education decreased from over 30% to 15%, and technical graduates respectively from 25% to 21%. The number of vocational schools also dropped from almost 3,000 in the school year 1990/91 to less than 1,800 in 2012/13³⁸.

The transformations taking place in Poland were so significant that they stood out against the international background. The highest percentage of people with higher education in Poland occurred in Poland - from 15% in 2001 to 42% in 2013 in the 25-34 age group, while in the entire EU27 it increased from 24% to 36%. Elderly people were also trained, but not enough to significantly reduce the intergenerational difference.

³⁷ L. Sondergaard, M. Murthi, D. Abu-Ghaida, Ch. Bodewig, J. Rutkowski, Skills, not just Diplomas. Managing Education for Results in Eastern Europe and Central Asia, The World Bank, Waszyngton 2012, s. 4.

³⁸ M. Lis, A. Miazga, Czas na jakość w szkolnictwie zawodowym, „IBS Policy Paper” 2014, nr 03/2014, s. 3.

Among older people, aged 55-65, only 14% had a university degree. In 2012, only 41% of people aged 25-34 had vocational or post-secondary vocational education, while in the generation of their parents - people aged 55-65 - it was as much as 62%³⁹.

Changes also took place within vocational education. Basic vocational schools, which in the centrally planned economy educated the so-called the working class, the schools that were also focused on general education, that is, techniques, have been giving way. A reflection of these processes is the decline in the number of graduates of basic vocational schools among younger people. While it is 33% among people aged 35-64, it is only 15% among people aged 25-34. The number of technical graduates remains unchanged at 20.25%. In addition, students of basic vocational schools often continue their education in supplementary techniques⁴⁰.

Several factors influenced the decline in the importance of vocational schools. First of all, the economic change was associated with a change in wages. Industrial workers, miners and the budget sphere have lost their relative position at the expense of specialists and managers from the private sector. In competitions that grew in importance, skills that were not offered by vocational schools, such as foreign language skills, were preferred⁴¹. In addition, a clear change in the production structure led to the weakening or collapse of the companies that most needed vocational school graduates. The mismatch between graduates and the demand for labor has been further strengthened by changes in the spatial dimension. Deagrarianization and natural tendency to concentrate capital in other places than flagship investments from the period of centrally planned economy, led to the fact that jobs were more often created in large agglomerations, and graduates of industrial majors from small centers could not find a job. At the same time, the liquidation of jobs concentrated on the villages and smaller towns distant from large centers. It was there that the unemployment rate increased the most⁴².

³⁹ M. Lis, A. Miazga, *Czas...* op.cit., s. 3-4.

⁴⁰ *Ibidem*, s. 4.

⁴¹ K. Szafraniec (red.), *Młodzi 2011*, KPRM, Warszawa 2011, s. 91.

⁴² M. Bukowski (red.), *Zatrudnienie w Polsce 2006 – Produktywność dla Pracy*, Ministerstwo Pracy i Polityki Społecznej, Warszawa 2007, s. 202-203.

In addition, there was a strong increase in educational aspirations in the whole society, and education policy was directed to the increase of general and general education skills rather than vocational education. The model of professional life has also been changed. In the perspective of a prolonging career, employees have to change not only their employer but also their profession. Therefore, graduates need skills that will allow them to acquire new qualifications, not necessarily in the narrow specialization they obtain at a vocational school⁴³.

The educational boom caused that vocational education was affected by a number of negative phenomena. First of all, people with higher exam results more often chose high schools or technology. Secondly, students and graduates of vocational schools were also, often wrongly, perceived as weaker. There has been stigmatization of this type of schools leading to negative feedback. The identity of basic vocational school students is placed in the negative connotation of a physical worker, not a professional. Finally, unsatisfactorily high unemployment and low employment among graduates of basic vocational schools are the result of the mismatch of the structure of learned professions to the needs of local labor markets⁴⁴.

Another problem of the vocational education system is, among others, from the fact that the offer of schools is often derived from their abilities, which are limited, inter alia, by staffing problems. Career in vocational education is not an attractive career path, especially for teachers of professions for which there is demand in the market. As a result, vocational training is lacking in staff, especially teachers in occupations sought for in the labor market, and those who work are often of advanced age. The current staff is well motivated to work with youth and is highly qualified, but the growing problem is acquiring new teachers - 67% of poviats in Poland have problems with finding teachers for vocational schools⁴⁵.

Another problem of Polish vocational education is the aging process of teachers. In place of retiring people, there are pedagogues with lower competences. School heads

⁴³ M. Lis, A. Miazga, *Czas...* op.cit., s. 4.

⁴⁴ K. Szafraniec (red.), *Młodzi 2011...* op.cit., s. 98.

⁴⁵ E. Goźlińska, A. Kruszewski, *Stan szkolnictwa zawodowego w Polsce – Raport, Krajowy Ośrodek Wspierania Edukacji Zawodowej i Ustawicznej*, Warszawa 2013, s. 152.

indicate that better qualified people find it difficult to get a job because of low wages. However, statistical data does not confirm significant differences. The average gross remuneration of teachers of vocational education in 2012 amounted to approx. 4,000 PLN, and telecommunications technicians almost 4,800 PLN⁴⁶. It should be stipulated that in the case of people starting work this difference may be greater. Despite the high level of motivation to work with young people, teachers show little activity in raising their qualifications. In particular, a significant part of them did not gain the minimum knowledge and skills in the field of new technologies⁴⁷.

Another factor hindering the achievement of high-quality teaching of vocational subjects is also insufficient equipment for schools. There are no mechanisms that would encourage employers to transfer modern technologies to schools - in 2010 in Poland, only every fifth school cooperated with employers to improve the usefulness of the skills taught. This is all the more worrying that entrepreneurs assess graduate practical skills as too theoretical and detached from new technologies. Possessing laboratories for conducting practical classes is declared by only 2/3 of schools, and over 1/4 of pupils consider the level of furnishing of the workshop too low. What's more, the labor market is changing faster than the educational offer and available equipment⁴⁸. For example, MEN officials indicate that the minimum time to introduce a new profession into the school curriculum is 2 years, with no problems in human resources and infrastructure⁴⁹.

Currently, the main challenge for Polish education is to equip all students with the minimum of civilization skills. It is at least as important as a better adjustment of the structure of vocational education to the structure of the labor market. The improving position of Poland in the results of the study of the skills of 15-year-old PISA, carried out in OECD countries, shows that at the level of primary and junior high schools such effects are achieved. On the other hand, difficulties in finding a place in the labor market signal problems at secondary school, vocational school and higher education level. It is worth emphasizing again that it is not the declining number of vocational

⁴⁶ Struktura wynagrodzeń według zawodów w październiku 2012, GUS, Warszawa 2014.

⁴⁷ E. Goźlińska, A. Kruszewski, Stan... op.cit., s. 153.

⁴⁸ K. Szafraniec (red.), Młodzi 2011... op.cit., s. 95.

⁴⁹ M. Lis, A. Miazga, Czas... op.cit., s. 7.

school students that is a problem, but the low quality of vocational schools, both in terms of vocational and general education⁵⁰.

The problem of Polish vocational schools is the mismatch to the needs of the labor market. The educational offer proposed by the school principals is mainly determined by practical and organizational considerations, such as technical facilities and the availability of qualified teachers. Therefore, the majority of vocational students get education in the gastronomic and mechanical industry, and the least in the areas of: chemical, ceramic, glass and mining. Unfortunately, the supply of graduates of the most-taught professions exceeds the demand reported by employers, therefore, in the mechanical and catering industries there is high unemployment. What's more, in the professional practices in enterprises the most often participate students of the following profiles: tourism and hospitality, transport and storage as well as farming and breeding. On the other hand, students of industrial professions in areas such as construction, road engineering and mechanics were much more likely to attend practical classes at school⁵¹.

In order to summarize the state of Polish vocational education, it is worth recalling the conclusions of the audit of the Supreme Audit Office of 2015. According to its provisions: "The vocational education system is not fully effective. This is evidenced by both a high level of unemployment among vocational school leavers (41%) as well as a negative assessment of their skills on the part of employers"⁵².

In 2012-2014, the share of unemployed graduates aged 15-30, who completed their basic vocational school, secondary or post-secondary school and did not continue their education in 12 months, in the total number of professionally active young people with vocational education, was 41, 6%, 43.6% and 38.8%. Analysis of data on the structure of the unemployed, included in the report of the Ministry of Family Labor and Social Policy - Situation on the labor market of young people in 2014, indicates that the largest group of unemployed were also people with basic vocational education (504,300) and

⁵⁰ M. Lis, A. Miazga, *Czas...* op.cit., s. 8.

⁵¹ E. Goźlińska, A. Kruszewski, *Stan...* op.cit., s. 155.

⁵² Informacja o wynikach kontroli: system szkolnictwa zawodowego, Najwyższa Izba Kontroli, Warszawa 2015, s. 8.

secondary vocational and post-secondary (401,000)⁵³. According to the audit opinion of the Supreme Audit Office: "The main reason for this is the mismatch of vocational schools' offer to the needs of the labor market, which results from an incomplete diagnosis of these needs and unsatisfactory conditions for learning the profession"⁵⁴.

In post-audit conclusions, NIK also draws attention to the fact that: "The method of financing vocational education from the state budget does not take into account the actual costs of education in individual professions, which makes it difficult for local authorities to decide on the launch of costly, but attractive on the market education. As a result, this situation strengthens the model of vocational education, in which the need for pupils and the labor market, and mainly owned infrastructure and personnel resources, do not determine the launch of a new education course⁵⁵". This was confirmed by the representatives of local government authorities surveyed by the NIK, indicating that the available didactic base (68%) and the qualifications of the staff (44%) are of key importance for decisions on educational fields⁵⁶.

The results of the audit indicate that 40% of powiat self-governments²¹ had difficulties with ensuring appropriate conditions and infrastructure for vocational training. This concerned in particular the adaptation of the technological and didactic base to the requirements of the new core curriculum. In 83% of vocational schools irregularities regarding the conditions of education were found. Over one third (37%) of school heads surveyed stated that the equipment of the school's didactic base was outdated and insufficient to implement the curricula. These factors significantly affect the quality of education and graduates' chances on the labor market. Activities of the leading bodies and directors of schools educating young people in professions to adapt the educational offer to the needs of the labor market, including: recognizing the needs of the labor market, ensuring appropriate conditions and organization of education were insufficient⁵⁷.

⁵³ Sytuacja na rynku pracy osób młodych w 2014 r., Ministerstwo Pracy i Polityki Społecznej, Warszawa 2015.

⁵⁴ Informacja o wynikach kontroli: system... op.cit., s. 8.

⁵⁵ Ibidem, s. 8.

⁵⁶ Ibidem, s. 8.

⁵⁷ Ibidem, s. 10-11.

In the conclusions of the audit carried out by the Supreme Audit Office, it was recognized that one of the most important tasks of school education should be to provide students with vocational schools appropriate to the expectations of employers of qualifications and competences⁵⁸. Meanwhile, surveys among employers indicate a discrepancy between the education of school leavers and the demand of the labor market, which results in difficulties with finding appropriate employees. About 75% of employers have difficulty finding the right people to work. At the same time, these difficulties result mainly from the lack of competence and experience expected by employers. The positions for which there is the highest demand are: qualified workers, operators and assemblers as well as sellers (due to high employee turnover at these positions)⁵⁹.

In the post-audit conclusions of the Supreme Audit Office, it was pointed out that when asked about changes in the vocational education system desirable from the employer's point of view, they indicated, among others, the need to increase the number of hours of practical classes in real working conditions, taking into account the needs of the labor market and raising awareness of these conditions already at the junior high school and modernizing school workshops⁶⁰.

The percentage of students in technical and vocational high schools increased from 34% to 43% between 1991 and 2010, the proportion of students choosing general upper secondary schools increased from 23% to 41%, while the percentage of basic vocational schools dropped from 43% to 15%, with in 2005/06 it was only 13%. "Strategy for education development" The Ministry of National Education and Sport 2007-2013 is based on CSO data, which state that in 2003 there was a drop in the number of people educating in vocational schools by about 75% compared to 1990, and the number of

⁵⁸ Informacja o wynikach kontroli: system... op.cit., s. 11.

⁵⁹ M. Kocór, Niedopasowanie kompetencyjne, [w:] J. Górniak, Polski rynek pracy – wyzwania i kierunki działań na podstawie badań Bilans Kapitału Ludzkiego 2010–2015, PARP, Kraków-Warszawa 2015, s. 18.

⁶⁰ Informacja o wynikach kontroli: system... op.cit., s. 12.

students increased by 34% technicians, 69% of general high schools and as much as 145% of post-secondary schools⁶¹.

After the drop in the percentage of students choosing vocational schools in the period 1990-2005, this trend has stopped in recent years, which may indicate that vocational schools are beginning to return to the interest of young people. Currently, after graduating from high school, there are about half of students choosing vocational schools (about 30% of the technique and almost 20% of basic vocational schools). However, due to demographic changes in Poland, the number of students in this type of schools will decrease⁶².

⁶¹ Strategia rozwoju edukacji na lata 2007-2013, Ministerstwo Edukacji Narodowej i Sportu, Warszawa 2005, s. 12.

⁶² M. Mazik-Gorzelańczyk, *Kształcenie...* op.cit., s. 9-10.

VI. Establishment of the latest educational reform (in the field of vocational education).

The reform of vocational education was started in 2012, with the initiation of the process of liquidating profiled secondary schools, which turned out to be a failed educational experiment to combine the essential elements of general education at the secondary level with elements of vocational education. The basic element of the changes was the adoption of the new Act on Educational Law⁶³. This legal act includes in its subject scope a part of the matter regulated earlier by the Act on the education system. The most important change included in the Act are solutions regarding the new school system and related modifications to the organization and functioning of schools and educational institutions. In the vocational education system there will be two new types of schools: first-cycle and second-level industry schools.

As a justification for the necessity to introduce changes in the vocational education system, it emphasized its maladjustment to the needs of the labor market and the negative perception of basic vocational schools. In addition, the Ministry of National Education pointed out that the purpose of changes in the vocational education system is to promote a dual education system corresponding to the needs of the economy. It was also emphasized that the introduction to the system of industry level I and II schools will ensure the patency of the vocational education system⁶⁴.

The legislator enumerates other reasons for the need to change the system of vocational education. These are⁶⁵:

- a) lack of mechanisms limiting the start and continuation of education in surplus occupations,
- b) lack of an adequate offer of further education for graduates of basic vocational schools,
- c) lack of effective career guidance,

⁶³ Ustawa Prawo oświatowe z dnia 14 grudnia 2016 r. (Dz. U. 2017 poz. 59).

⁶⁴ Uzasadnienie do ustawy Prawo oświatowe, legislacja.rcl.gov.pl, s. 1-2 [dostęp online z dn. 28.01.2018].

⁶⁵ Ibidem, s. 3.

- d) failure of the external examinations system and their poor quality,
- e) outdated and unadjusted content of the core curricula to the labor market requirement,
- f) too many qualifications distinguished in occupations,
- g) shortage of teaching staff in vocational education.

By introducing the dual system Poland was inspired by German experience, where the practical learning of the profession at employers has been functioning for many years and with good results. In the opinion of Polish employers' organizations, it is impossible to transfer German experiences directly to Poland, because in Germany there are many times more than in Poland large and medium-sized enterprises as well as economic self-government organizing and financing fully vocational training. In Poland, micro and small enterprises dominate, which are unable to meet such tasks⁶⁶.

In addition to the introduction of 1st and 2nd degree schooling, the Education Law Act indicates that the Minister competent for education and training will determine by regulation the classification of vocational education occupations and the core curriculum of vocational education. In March 2017, the Minister of Education signed a regulation on the classification of vocational education occupations. The document defines 213 vocational education occupations, in which education may be conducted from September 1, 2017. The regulation concerns learning in the first grades of first-cycle school schools, first 4-year technical secondary school classes and first-semester students of post-secondary schools. The document includes existing and new professions⁶⁷.

In line with the introduced changes, from 1 September 2017, significant changes in the structure of education were introduced, including those concerning vocational education. The 8-year primary school, a 4-year general high school, a 5-year technical

⁶⁶ A. Szymańska (red.), *Analiza...* op.cit., s. 12.

⁶⁷ *Ibidem*, s. 12.

school were introduced and new types of schools were introduced - the first and second-grade industry school, which replaced the basic vocational school.

The target structure of secondary education after the changes introduced in 2017 has been presented schematically in Figure 1.

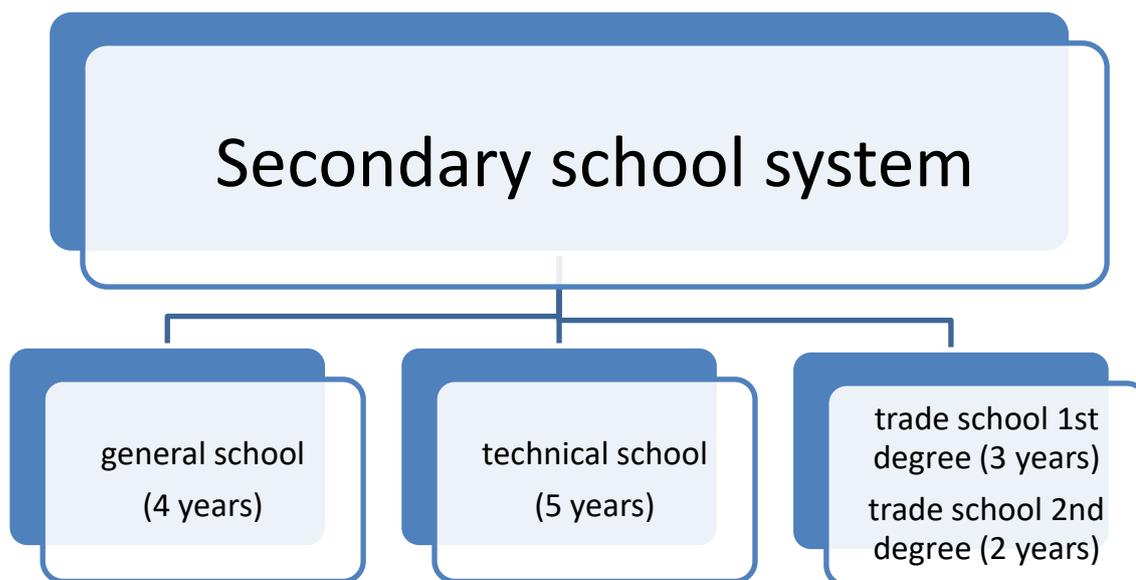


Figure 1. The structure of secondary education after the changes from 2017

Source: own study.

The legal basis for the changes are the following documents:

- a) Act of 14 December 2016 - Educational Law⁶⁸;
- b) Regulation of the Minister of National Education of February 14, 2017 on the core curriculum of pre-school education and the core curriculum of general education for primary school, including moderate or severe school students with moderate intellectual disabilities, general education for the industry level school, education general for the

⁶⁸ Dz. U. 2017 poz. 59.

special school for the preparation for work and general education for the post-secondary school⁶⁹;

c) Regulation of the Minister of National Education of 13 March 2017 on the classification of vocational education occupations⁷⁰;

d) Program basis Regulation of the Minister of National Education of March 31, 2017 on the core curriculum of vocational education⁷¹;

e) Regulation of the Minister of National Education of 28 March 2017 on framework teaching plans for public schools⁷²;

f) Regulation of the Minister of National Education of 17 March 2017 on the detailed organization of public schools and public kindergartens⁷³.

The timetable for the implementation of the new vocational training system has been spread over several years. The individual stages are⁷⁴:

a) From 1 September 2017 - existing 3-year basic vocational schools have been transformed into 3-year primary-level school schools (as a result, from the 2017/2018 school year no recruitment to the first major vocational school classes is carried out);

b) From 1 September 2019 - start of operations for 5 years of technology (accepting graduates of an 8-year primary school);

c) From September 1, 2020 - the first recruitment to the first two-year second-grade industry schools.

As part of the newly introduced system, the post-secondary school formula is not subject to change. Depending on the profession, the teaching period in it does not last longer than 2.5 years.

⁶⁹ Dz.U. 2017 poz. 356.

⁷⁰ Dz.U. 2017 poz. 622.

⁷¹ Dz.U. 2017 poz. 860.

⁷² Dz.U. 2017 poz. 703.

⁷³ Dz.U. 2017 poz. 649.

⁷⁴ Harmonogram uruchamiania nowego typu szkół, www.wsip.pl (source download: 28.01.2018).

The 1st level industry school is to provide education in the scope of one qualification. The second level of the industry school is to operate in occupations that are to continue at the technical level. These are, for example:

- a) mechanic of motor vehicles and motor vehicle techniques,
- b) warehouseman and logistic technician,
- c) mechatronics and mechatronics techniques.

The technique is to provide education in occupations where a maximum of two qualifications have been distinguished.

The introduction of a 2-year industry-wide secondary school is designed to ensure the patency of vocational education in the school system. This school is to enable graduates of the first-level school industry to continue their education in the school system. This means that it will be possible to obtain a diploma confirming vocational qualifications in the profession taught at the technical level and to obtain a secondary school-leaving certificate. Graduates of the second-level industry school after obtaining a secondary school-leaving certificate will be able to continue their studies at university⁷⁵.

Establishment of a second-level industry school for graduates of the industry-oriented first-level school will enable, without interrupting education, preparation for the matriculation examination. Both students of the industry-oriented first-level school and the second-level industry school will be covered by educational activities⁷⁶.

Adults may continue their education in adult schools, qualifying professional courses or confirm their level of education and professional qualifications by means of extramural examinations⁷⁷.

In the first-cycle school, education in the field of one qualification is to be realized. After graduating from the industry's first-cycle school and passing the one-qualification

⁷⁵ Szkoła branżowa, <http://reformaedukacji.men.gov.pl> (dostęp online z dn. 28.01.2018).

⁷⁶ Ibidem.

⁷⁷ Ibidem.

exam, the graduate will obtain a diploma confirming vocational qualifications and will also receive basic vocational education⁷⁸.

The second level of the industry school will function in occupations that have a continuation at the technical level. After graduating from the second grade school and after passing the second qualification exam, the graduate will obtain a secondary industry education and a technical diploma. A graduate of the second-cycle industry school will be able to take the matriculation examination, and after obtaining a secondary school-leaving certificate, he / she can continue his / her education at higher education⁷⁹.

Graduates of the industry-oriented first-cycle school, who do not decide to attend a second-cycle school, will be able to take up a job or choose a general secondary school for adults starting from the second grade and opt for qualifying vocational courses. The concept of a new branch school is based on the conviction that knowledge and professional skills as well as general education should give the opportunity to obtain secondary education, followed by higher education⁸⁰.

Graduates of the general secondary school, technical secondary school and industry secondary school will receive one identical secondary school-leaving certificate. Thus, a pupil after a second-level industry school - like his friends and colleagues finishing other types of schools - will be able to apply for a place in a chosen field of study⁸¹.

To obtain a secondary school-leaving certificate, graduates of the second-cycle school will be required to pass the matriculation examination. Similarly as in the case of graduates of general secondary schools and technical secondary schools - from three obligatory subjects (Polish language, mathematics and a foreign language). The pupil after the second-cycle industry school in addition to the obligatory additional subject (in the field of general education) will also take examinations confirming the qualifications in a given profession. In addition to the secondary school-leaving certificate, he will

⁷⁸ Ibidem.

⁷⁹ Ibidem.

⁸⁰ Szkoła branżowa, <http://reformaedukacji.men.gov.pl> (dostęp online z dn. 28.01.2018).

⁸¹ Egzamin kończący branżową szkołę, <http://reformaedukacji.men.gov.pl> (dostęp online z dn. 28.01.2018).

also receive a diploma confirming professional qualifications. In order to pass examinations confirming qualifications in the profession, you will receive at least 50% of the written exams from each part possible points, and from every practical part - at least 75% points⁸².

In the context of changes in vocational education, the Regulation on the classification of vocational education occupations is significant. The symbols of educational areas and the numbering of occupations have been changed in the classification. The Polish Classification of Activities was taken into account and eight areas of education were identified⁸³:

- a) administrative and service (AU),
- b) construction (BD),
- c) electro-electronic (EE),
- d) mechanical and mining-metallurgical (MG),
- e) agriculture and forestry with environmental protection (RL),
- f) tourism and gastronomic (TG),
- g) medical and social (MS),
- h) artistic (ST).

The Regulation also covers several new professions. These are⁸⁴:

- a) a finishing work technician in construction, continuing education in the profession, a building fitter and finishing works in construction;

⁸² Egzamin kończący... op.cit.

⁸³ Rozporządzenie Ministra Edukacji Narodowej z dnia 13 marca 2017 r. w sprawie klasyfikacji zawodów szkolnictwa zawodowego [Dz.U. 2017 poz. 622].

⁸⁴ Ibidem.

b) warehouseman logistics, constituting a foundation for training in the profession of logistic technician

The Regulation also distinguishes five auxiliary professions dedicated to people with intellectual disabilities to a light degree⁸⁵:

- a) assistant worker of the tailor,
- b) auxiliary mechanic worker,
- c) an auxiliary worker of a locksmith,
- d) auxiliary employee of a carpenter,
- e) assistant hairdresser.

In accordance with the curriculum assumptions, in the first-cycle professional school, the example course of learning looks as follows (may vary depending on the particular school and the direction of education):

- a) in class I and II - 3 days a week of general education classes at the school and 2 days of vocational preparation in the workplace,
- b) in class III - 2 days per week of general education classes at school and 3 days of vocational preparation in the workplace,
- c) in each school year students are delegated to a four-week course of vocational subjects that complement the cycle of vocational education.

⁸⁵ Rozporządzenie Ministra Edukacji Narodowej z dnia 13 marca 2017 r.... op.cit.

VII. Principles of functioning of the dual education model.

The dual system concept in social sciences is mainly applied to vocational education. The dual system, otherwise known as alternating or double-track, is based on theoretical and general education in the school system or non-school forms and learning the profession organized by the employer in enterprises. School education combined with internship in a company (dual system) is very popular in economically developed countries, including Germany, Austria, Switzerland, Norway and France. The student gets his education at school (he is a student), but at the same time is a trainee (trainee) and therefore an employee in the workplace. In this system, vocational training is strictly adapted to the expectations and needs of employers and allows students to smoothly transition from school to active working life.

In the terminological vocabulary of UNESCO, the dual system of education is called dual, because in its framework the process of apprenticeship in a company and vocational education in a school are combined into one course. In the company, the student receives practical training, which is supplemented with theoretical knowledge at the vocational school. However, according to the online dictionary CEDEFOP, the dual education system refers to education or training, which combines the period of education in an educational institution or a training center and in the workplace. The dictionary also provides a dual system of education, as a training in alternating forms, stressing that the term dual education system can be used with other terms interchangeably, apprenticeship, alternate training or work-based learning⁸⁶.

The concept of a dual education system is widely used as a collective term, referring to the fact that teaching and learning in vocational education and training is duality in two respects⁸⁷:

a) duality of learning places (schools / organizers of vocational education and training and enterprises providing training), which are jointly responsible for the implementation of theoretical and practical training,

⁸⁶ A. M. Nogueira, Dualny system kształcenia: rozwiązanie na trudne czasy? Parlament Europejski, Bruksela 2014, s. 1-2.

⁸⁷ A. M. Nogueira, Dualny system... op.cit., s. 2.

b) the duality of entities (public and private entities) that are jointly responsible for policy and practice in the field of vocational education and training.

The dual system plays a significant role or dominates in such countries as: Switzerland (87% of students participate in the dual system), Germany (69%), the Czech Republic (58%), Austria (47%), Hungary (37%), the Netherlands (33%). The dual education system dominates in the countries of Western Europe with the highest level of development, the highest productivity, competitiveness and work culture⁸⁸, as well as in the two most developed countries of Central Europe. A key role is played by bringing the vocational school closer to the world of work, the enterprise, the labor market, the needs of the economy and the enterprise to school. The search for effective solutions in the field of integration of education and vocational education systems with the needs of the labor market is one of the key objectives set for the Member States of the European Union. Developed in 1995 by the European Commission, the White Book Teaching and Learning. On the way to the learning society, in order to meet teaching and learning towards a learning society, it is recommended that the school and the enterprise approach the way of acquiring knowledge⁸⁹.

In a dual system, a school and an enterprise are two complementary links of knowledge acquisition. In the learning society, the benefits of cooperation between the world of science and the world of work will be shared by both sides. Employers will be able to count on employees endowed with both the necessary practical qualifications as well as general knowledge, culture, own and developed abilities. For employees, approaching learning to work during the education process increases the chances of employment and receiving education adequate to the current and future situation on the labor market. The school and the workplace are complementary places for acquiring knowledge. The student who carries out the practical part at the entrepreneur is educated through action. Thanks to the practice, young people can gain the skills and experience needed to function in the enterprise. Giving them first contact with the production world at the

⁸⁸ M. Kabaj, Strategie i programy przeciwdziałania bezrobociu w Unii Europejskiej i w Polsce, Wydawnictwo Naukowe Scholar, Warszawa 2004, s. 192-196.

⁸⁹ A. Bhuiyan, Dualny system kształcenia zawodowego inwestycją w rozwój gospodarczy, SGH, Warszawa 2017, s. 9.

stage of learning, it also gives them the important advantages of a successful entry into the labor market⁹⁰.

Professional experience is highly valued by enterprises, and it is a major obstacle for those seeking a first job. Many young people fall into a vicious circle: they cannot find their first job because they have no work experience. It has been shown that apprenticeship programs significantly contribute to youth employment, and it is mainly thanks to them that in some European countries youth unemployment is at a low level⁹¹.

The International Labor Organization (ILO) defines a dual system as an education system in which training is not subject to the autonomous decisions of employers or employers and employees in the enterprise, nor does the state take responsibility for planning and organizing vocational training. There is a wide cooperation between employers' organizations, the state and trade unions⁹².

⁹⁰ Biała Księga Kształcenia i Doskonalenia. Nauczanie i uczenie się. Na drodze do uczącego się społeczeństwa, Komisja Europejska, Wyższa Szkoła Pedagogiczna TWP, Warszawa 1997, s. 61.

⁹¹ Światowe tendencje w zatrudnianiu ludzi młodych w 2013 roku, Zagrożone pokolenie, Międzynarodowa Organizacja Pracy, Genewa, 2013.

⁹² Ibidem.

VIII. The effects of changes introduced in the Polish vocational education system.

The reform of the vocational education system, based on the introduction of dual education in industry schools, was initiated in the 2017/2018 school year. However, this is another stage of changes initiated at the beginning of the second decade of the 21st century, due to the need to adapt the existing vocational education system to the challenges of modern economy.

In connection with the introduced changes in the scope of functioning of vocational education, numerous research and analytical works were carried out on various aspects of the dual education system and professional schools.

Interesting conclusions about the current state of Polish vocational education and the prospects ahead are the result of the document "Monitor of Education and Training of 2017 in Poland" prepared by the European Commission. Modernizing vocational education and training and supporting adult learning has been recognized here as one of the most important goals of changes in the Polish education system. According to data from the European Commission document, in 2015 the percentage of high school students in Poland participating in initial vocational education (IVET) slightly increased to 50.5%, exceeding the EU average, which is 47.3%. In 2016, the employment rate of recent IVET graduates was 74.3% and was slightly lower than the EU average of 75%. The reform of the vocational education system carried out in 2016 was the result of the sector suffering from some structural problems (Polish government, 2017). They concern the lack of mechanisms allowing for the adjustment of the so-called IVET to demand on the labor market; lack of flexible learning paths; insufficient career counseling and counseling; insufficient teaching; and the lack of adequate financial expenses. These problems were not sufficiently addressed, mainly because the funding model was not adapted to changes in the structure and core curriculum introduced in the reform in 2012⁹³.

The document "Monitor of Education and Training of 2017 in Poland" indicates

⁹³ Monitor edukacji i kształcenia 2017. Kształcenie i szkolenie. Polska, Komisja Europejska, Bruksela 2017, s. 10.

that the aim of the current reform of the vocational education system is to strengthen existing measures and introduce new elements. The direction of the reform, which has been implemented since September 2017, is in line with the main priorities of EU policy. Its aim is to promote cooperation between employers and schools, especially in the field of organizing apprenticeship training at the place of the internship. The reform also includes projects financed by the European Social Fund (ESF), which deal with specific aspects such as supporting cooperation between the so-called IVET and entrepreneurs or developing practical exam topics. In 2016, no specific steps were taken to further vocational training for adults, despite the fact that the sector faces challenges similar to those associated with basic vocational training⁹⁴.

Interesting conclusions related to the functioning of the Polish vocational education system, together with proposals for introducing specific changes in it, are presented in the report "Effective vocational education as a key element of the modern economy. Diagnosis of the state of vocational education in Poland. Proposal to modify the model"⁹⁵. In the context of changes introduced as part of the 2017 reform, key recommendations were as follows⁹⁶:

- Introduction of an effective educational and vocational counseling system that allows for the diagnosis of strengths, weaknesses and predispositions of the student, and consequently the choice of an appropriate career path.
- Introduction of cooperation mechanisms between entrepreneurs and vocational schools at the local level - this will improve the quality of education and improve the situation of young people in the labor market. In addition, it will significantly affect the development of the economy, because on the basis of this cooperation, the regions will be getting rich faster by creating specialized economic zones.

⁹⁴ Eurydice, Eurypedia; Ongoing Reforms and Policy Developments in Poland (Trwające reformy i rozwój polityki w Polsce), <https://webgate.ec.europa.eu> [dostęp online z dnia 29.01.2018].

⁹⁵ Efektywne szkolnictwo zawodowe, jako kluczowy element nowoczesnej gospodarki. Diagnoza stanu szkolnictwa zawodowego w Polsce. Propozycja modyfikacji modelu, Fundacja Warsaw Enterprise Institute, Warszawa 2016.

⁹⁶ Ibidem, s. 4.

- Creation of a system that adapts the type of schools and educational courses in a given region to the actual regional needs of the labor market.

The aforementioned report also draws attention to specific data on the labor market, indicating the need for changes in the vocational education system. According to GUS data, in 2014, unemployed men, up to 34 years of age, accounted for around 40% of all unemployed men in general. In the case of women it was almost 50%. The unemployment rate in the 20-24 age group amounted to over 20%, thus it was about twice as high as the total unemployment rate. The reasons for this state of affairs can be found, inter alia, in the maladjustment of the Polish educational market - broadly understood - to the needs of the economy. Over the last two decades, the number of students has also increased significantly - if in the academic year of 1990/1991 there were 400,000 in Poland, in 2013/2014 over one and a half million were educated at universities. At the same time, the share of people with higher education in the number of registered unemployed in total increased significantly - in 2002 they constituted less than 4%, while in 2014 there were as many as 12.4%⁹⁷.

According to the latest edition of the "Talent shortage" survey, conducted by Manpower Group, covering data for 2015, as many as 41% of entrepreneurs indicate a problem with finding adequately qualified employees⁹⁸. It is worth noting that this percentage is eight percentage points higher than in the study from 2014 and by three percentage points higher than the global average. The most difficult to fill the position turns out to be - already for eight years - a qualified manual worker (this professional group includes, among others, mechanics, electricians, welders, bricklayers, etc.)⁹⁹.

47% of entrepreneurs as the reason for difficulties in finding a suitably qualified candidate for the above-mentioned positions mentioned lack of technical skills, and 33% no candidates at all. Even the lack of experience was not such a common problem - this factor was mentioned by 15% of entrepreneurs. It is worth noting that the above estimates are still relatively optimistic, because according to prof. Andrzej Rabczenko

⁹⁷ Efektywne szkolnictwo zawodowe... op.cit., s. 5.

⁹⁸ Badanie: Niedobór talentów. 2015, Manpower Group, Warszawa 2016, s. 22.

⁹⁹ Efektywne szkolnictwo zawodowe... op.cit., s. 5.

as many as 75% of entrepreneurs complain about the lack of suitably qualified candidates¹⁰⁰.

Report "Effective vocational education as a key element of modern economy. Diagnosis of the state of vocational education in Poland. The proposal to modify the model" indicates that it is not enough to simply state that too many people - in relation to the needs generated in the labor market - study, and too few select the path of vocational education. According to the Central Statistical Office, in 2014 about 27% of the unemployed were people with basic vocational education. It is - taking the division according to the level of education - the largest group. This would mean that not only the structure of education paths chosen is not adapted to the needs of the economy, but also that vocational training does not fully function in the way it should and is not a real response to the needs of the labor market. We are dealing with a situation where, on the one hand, employers indicate problems with finding an employee with hard technical skills, and on the other hand, a huge percentage of people finishing schools teaching these skills remains unemployed¹⁰¹.

A very rich source of information enabling assessment of the state of vocational education is the final report on the study of the functioning of the vocational system in Poland, carried out in 2011 at the request of the Ministry of National Education as part of the project "Vocational school of positive choice". The fact that the level of cooperation between schools and Practical Training Centers (institutions performing tasks in the field of practical vocational training - their tasks include, among others, conducting practical classes for vocational school students or organizing and conducting lifelong learning in non-school forms) and entrepreneurs the results of research are very small. Only 36% of vocational schools and 36% of CKP declares cooperation with employers in the implementation of the curriculum. 79% of schools and 74% of CKP do not recruit representatives of non-school teachers to work at school. At the same time, as much as 69% of schools educating in the profession declare a problem with recruitment and maintenance of qualified staff. The result is a situation in which the percentage of teachers in the retirement age is clearly higher in vocational schools than in general high

¹⁰⁰ Efektywne szkolnictwo zawodowe... op.cit., s. 6.

¹⁰¹ Ibidem, s. 6.

schools. In only 1% of general schools, most teachers are at retirement age, in 17% schools are a noticeable part of the team, but still a minority (from 11% to 50%). Meanwhile, in as many as 7% of vocational schools, most teachers of vocational subjects are at retirement age, and in 27% of schools they constitute a minority of the staff. Only in every fifth school and every third CKP, activities are undertaken to improve the qualifications of teachers of vocational subjects, and in both cases the majority of these activities do not directly concern the practical vocational training, and for example the use of examination requirements standards. Therefore, there are no effective mechanisms to improve the qualifications of the teaching staff teaching the profession. As many as 28% of schools do not have specialist laboratories or workshops in which the vocational training is conducted. In the opinion of the directors, 80% of schools and 87% of CKP, technical infrastructure of the school requires renovation or modernization, partly or entirely¹⁰².

The above paragraph briefly describes the main problems faced by Polish vocational education. It can be considered that they consist of:

- a) insufficient level of cooperation with entrepreneurs operating on the local market,
- b) problems with recruitment and maintenance of qualified staff,
- c) shortages in infrastructure infrastructure
- d) economic barriers.

Changes introduced by the introduction of branch schools based on the dual education system are to be a response to the above-mentioned problems. This was confirmed by the conclusions from the report "Effective vocational education as a key element of the modern economy. Diagnosis of the state of vocational education in Poland. Proposal of modifying the model ", according to which" In cooperation with local entrepreneurs, curricula should be modernized on an ongoing basis and the possibilities of dual education should be used. The dual system is based on parallel theoretical education at

¹⁰² Badanie funkcjonowania systemu kształcenia zawodowego w Polsce. Raport końcowy, Ministerstwo Edukacji Narodowej, Warszawa 2011, *passim*.

school and practical at the workplace, which allows direct adaptation of vocational education to the needs of the market. The nature of vocational schools should depend on these needs - their network should depend on the demand for specialists in a given field in the labor market"¹⁰³.

A very important element indicating the directions of changes in the vocational education system was the audit of the Supreme Audit Office of 2015: "Information on the results of the audit: the vocational education system". As a result of control activities, it was demonstrated that in the years 2012-2015 the activities of the Minister of National Education and the Minister of Labor and Social Policy contributed to a better diagnosis of the labor market and constituted an opportunity to better adapt vocational education for young people to diagnosed needs. However, these analyzes did not fully translate into educational profiles, for which the directors and governing bodies are mainly responsible. The factor determining the launch of a new education was not the analysis of the labor market, but the infrastructural and personnel capabilities of vocational schools. Thus, there is still a supply model of vocational education in Poland, which, according to the Supreme Audit Office, poses a risk of lowering the effectiveness of vocational education. The survey conducted by the Supreme Chamber of Control to 354 leading bodies shows that the choice of educational courses is primarily determined by: available premises and equipment required for practical vocational training (68%) and available teaching staff and its qualifications (44%). On the other hand, less than half of the respondents deciding about the direction of education included an analysis of the situation on the labor market (43%). NIK notes that only 6% of poviats indicated education costs. The graph below shows the share of all factors. In 2010 / 2011-2014 / 2015, almost all of the poviats surveyed (96%) had a change in education. Their main initiators were school principals (81%) and the poviats themselves (14%)¹⁰⁴.

The follow-up report of the Supreme Audit Office also pointed to major problems with the appropriate adaptation of educational courses to the needs of the labor market. The inspections of the Supreme Audit Office in poviats as the bodies running vocational

¹⁰³ Efektywne szkolnictwo zawodowe... op.cit., s. 15.

¹⁰⁴ Informacja o wynikach kontroli... op.cit., s. 21.

schools showed that the activities of poviats to recognize the needs of the labor market and to adapt the educational offer to its requirements and professional interests of junior high school students were insufficient. New directions of education, reported for launch by school heads, were accepted by the poviat management boards without reliable verification of applications, identification of needs in this area and interests of junior high school graduates, and sometimes contrary to the poviat and voivodship employment council's opinions, or when the school she did not have a qualified pedagogical staff and an appropriate didactic basis for teaching her profession. The introduction of new fields of education also took place without agreement with the poviat management and without consulting the voivodship employment council on compliance with the needs of the labor market, which violated art. 39 par. 5 of the Act on the education system. The lack of poviats conducting analyzes of the legitimacy of education in the professions taught in schools being run, and the lack of data on the professional lives of graduates in all controlled poviats resulted in education in surplus occupations and an increase in the percentage of unemployed graduates of these schools¹⁰⁵.

The problem related to the failure to adjust the offer of vocational education to the needs of the labor market, confirms the results of research carried out by NIK auditors, in accordance with which the directors were guided, in particular, by the available techno-didactic base and their teaching staff, which was mainly justified by the lack of the need to incur additional costs associated with launching a new direction. The structure of vocational education also took into account the possibility of offering apprenticeships and the interest of potential candidates in the study of a given profession. Schools usually presented their offer of training in occupations, and only the lack of candidates resulted in the failure to start new directions. In individual cases, it was also decided to broaden the educational offer without providing qualified pedagogical staff and didactic base as well as estimating the costs of creating a new direction¹⁰⁶.

¹⁰⁵ Informacja o wynikach kontroli... op.cit., s. 22.

¹⁰⁶ Informacja o wynikach kontroli... op.cit., s. 24.

The maladjustment of the vocational education system to the needs of the labor market was also confirmed by the opinions of employers. In the survey conducted by the NIK, the employers expected the candidate to work in basic vocational or secondary education in a specific direction (32.1%), and they considered it particularly important to have specialist knowledge and experience as well as teamwork skills. They assessed relatively low the significance of such features as creativity and innovation. In the survey, the respondents also indicated the major disadvantages in the case of employing vocational school graduates. They were primarily: maladjustment of the profile of vocational education to the needs of employers (53.6%), incomplete practical preparation to practice (32.1%). Employers also assumed that the newly admitted employee would undergo full training related to internal requirements, although 42.9% of the respondents indicated a small scope of training. The most frequently chosen by the surveyed form of employment was a full-time contract for a definite period (82.1%). The most important changes from the employer's point of view, which should be introduced to the vocational education process are: increasing the number of practical classes and apprenticeships in real conditions, training in jobs for which there are no specialists on the labor market, creating multi-occupational classes instead of educating in one profession, investing and modernizing school workshops serving the practical learning of the profession, in order not to educate in archaic technologies or theoretically, increase knowledge of the needs of the labor market at the gymnasium level¹⁰⁷.

The effects of changes introduced in the vocational education system can be seen on the basis of the study "Analysis of the situation of vocational education in the Lodz region" carried out in 2017. This study applies to the Lodz region, but its example shows national trends. In the part concerning the school and CKZIU plans with reference to the needs of the labor market, it was shown that: "over the next 3 years more than half of vocational schools plan to open new directions of vocational education. Expiration of occupations is expected only in 10 schools, while in the remaining ones no changes will take place. In addition, in 5 schools, new educational courses will be closed as well as launched. Considering the planned changes to the educational offer, broken down into

¹⁰⁷ Informacja o wynikach kontroli... op.cit., s. 44.

individual types of branches, it should be noted that the biggest changes will occur in post-secondary schools, because the most professions will be opened and closed there. On the other hand, the least new courses will be created in basic vocational schools"¹⁰⁸.

Research conducted in 2017 in the Lodz region indicated that jointly schools from the region exchanged 133 new fields of study, although many schools indicated that they plan to open new fields of study, but did not specify what often depends on the results of the reform of education. Among them, the most popular were educational courses in electrical and mechanical professions, including car ones. As many as 10 schools plan to educate in the field of logistics, and 5 schools in the field of equipment technicians and renewable energy systems. Many times there were also directions of education for the needs of traditional professions, such as a hairdresser, tailor, confectioner, carpenter or locksmith. Techniques are increasingly offering directions requiring good use of new technologies - such as graphics, programmers and IT specialists. Also new is the fashion industry technician as well as textronic technician, a profession that combines knowledge in the field of textile, electronics and mechanics, thanks to which intelligent materials are created. In post-secondary schools, however, medical professions will be created, such as a masseur, orthopedist, optician or medical caregiver. A similar situation in case of changes in the vocational education offer is presented in the CKZiU. New directions will be created in 15 branches, including from the medical and social area (eg electromagnet technician, massage technician) or modern technologies (textronics, autotronics, hydrotronics, photovoltaics)¹⁰⁹.

The survey of the situation in the Lodz region also points to the growing scope of cooperation between vocational schools and entrepreneurs. The vast majority of schools (93%) indicate different forms of cooperation with entrepreneurs for the purpose of practical apprenticeship training by students. Only 15 schools did not undertake such cooperation, indicating lack of interest on the part of students or entrepreneurs, and one of the special schools indicated that disabled young people do not find themselves in the open labor market. The most common form of cooperation with employers is the organization of internships and apprenticeships implemented by schools (193) as well as

¹⁰⁸ A. Szymańska (red.), *Analiza sytuacji...* op.cit., s. 46.

¹⁰⁹ A. Szymańska (red.), *Analiza sytuacji...* op.cit., s. 47.

courses, classes and trainings with employers (111). Under the influence of employers' opinions, schools often adapt their educational offer to their needs, eg by opening a new direction in response to the needs reported by employers (110), and also consulting in the scope of modernizing workshop equipment and workshops (70). Often, it also happens that enterprises offer material support for schools in the form of devices, teaching materials or software (69), or scholarships for the most talented youth (11). In addition to the given cafeteria, the answers appeared that employers' representatives are members of the school's pedagogical council, an examination center was organized at the workplace, and companies are promoted at school, at educational fairs and during junior high school meetings¹¹⁰.

An important area of changes in vocational education (started before the introduction of industry schools and the dual education system) is the issue of curricula. The effects of changes in 2012-2015 are summarized in the document "Building trust in vocational education, monitoring the implementation process of the curriculum of education in occupations 2013-2015"¹¹¹. The study showed that the classification of vocational education occupations had the greatest impact on changing the educational offer. This was mainly visible in the first year of implementing changes. In the following years, the main reasons for changes in the educational offer of schools were the needs of the labor market, lack of interest in educating in a given profession of junior high school graduates and lack of job offers. Between 2012 and 2015, the number of schools increased (from 9% to 25%), which gave up education in selected occupations. However, by far the major part of the schools participating in the survey launched education in new professions, rather than had to stop recruitment. Thus, one can speak about a considerable interest of vocational school leavers in vocational education. This is also indicated by information on recruitment to upper secondary schools - the percentage of junior high school students choosing vocational education increased from 47% in 2006 to 54.65% in 2014¹¹².

¹¹⁰ A. Szymańska (red.), *Analiza sytuacji...* op.cit., s. 51.

¹¹¹ A. Pfeiffer, *Budowanie zaufania do kształcenia zawodowego monitorowanie procesu wdrażania podstaw programowych kształcenia w zawodach 2013-2015*, Krajowy Ośrodek Wspierania Edukacji Zawodowej i Ustawicznej, Warszawa 2015.

¹¹² *Ibidem*, s. 132.

Another important issue was the implementation of the Foundation's Core Curriculum. Despite the innovative structure of the core curriculum of vocational education, the vast majority of schools did not report any difficulties in its implementation. Only about one fifth of the technicians indicated that they had difficulties in implementing the CIP. This may be related to the need to link vocational and general education, in particular with the implementation of subjects taught at an advanced level and preparation of students for the baccalaureate. Among the difficulties associated with the implementation of the CABC, the surveyed directors and teachers most often pointed to the inconveniences associated with equipping the laboratory. There were also problems with too few laboratories and the number of positions. Difficulties associated with equipment concern both the insufficient techno-didactic base and its timeliness. This situation is additionally hampered by the requirements related to the exam confirming the qualifications in the profession (in particular, the number of suitably equipped, examination stands). This situation should improve after implementing retrofitting projects that will be implemented under OP KED¹¹³.

As part of the preparation of the document "Building trust in vocational education, monitoring the implementation of the core curriculum of education in occupations 2013-2015", qualitative data were analyzed: statements of directors and discussions during industry seminars. She pointed to the fact that it is worth reviewing the PMC in terms of¹¹⁴:

- a) greater coherence and transparency, and as a result of reducing the number of effects, updating the content of the profession and professional tasks,
- b) reducing the number of qualifications distinguished in certain professions,
- c) profiling of certain qualifications common to several professions, for each profession separately,
- d) changing the proportion of hours recorded in part III of the Regulation on the core curriculum of vocational education,

¹¹³ A. Pfeiffer, *Budowanie zaufania...* op.cit., s. 133-134.

¹¹⁴ *Ibidem*, s. 137.

e) changing the duration of apprenticeships.

The above-mentioned conclusions have been largely included in the changes introduced in the vocational education system from the 2017/2018 school year.

Referring to the public perception of vocational education reform, it should be noted that it is better than the other elements of the educational reform introduced in 2017. This is confirmed by CBOS data from February 2017. Nearly three-quarters of respondents (72%) support the replacement of a basic vocational school with a two-tier industry school in a situation where a three-year branch of the first-level school could achieve basic industry education and its graduates would be prepared both to take up employment and to continue education in a two-year industry school II degree, which in turn would end with a final exam and an exam confirming the qualifications in a given profession. Only every tenth respondent (10%) is critical of such a change, and almost every fifth (18%) has no opinion about it. The views of parents of school-age children on the introduction of a two-grade branch school in place of a basic vocational school do not differ significantly from those expressed by the general surveyed¹¹⁵.

The following chart presents the answers of respondents surveyed by CBOS in response to the question: "Another change to be introduced is the replacement of a basic vocational school with a two-level industry school. A three-year 1st degree trade school would make it possible to obtain basic industry education. Its graduates would be prepared both to take up a job and to continue their education in a two-year branch school of the second level, which would end with a final exam and an exam confirming the qualifications in a given profession. Do you think that the introduction of a two-grade branch school for a good solution or a bad one"?

¹¹⁵ Komunikat z badań: Polacy o reformie systemu edukacji, Centrum Badania Opinii Społecznej, Warszawa 2017, s. 12.

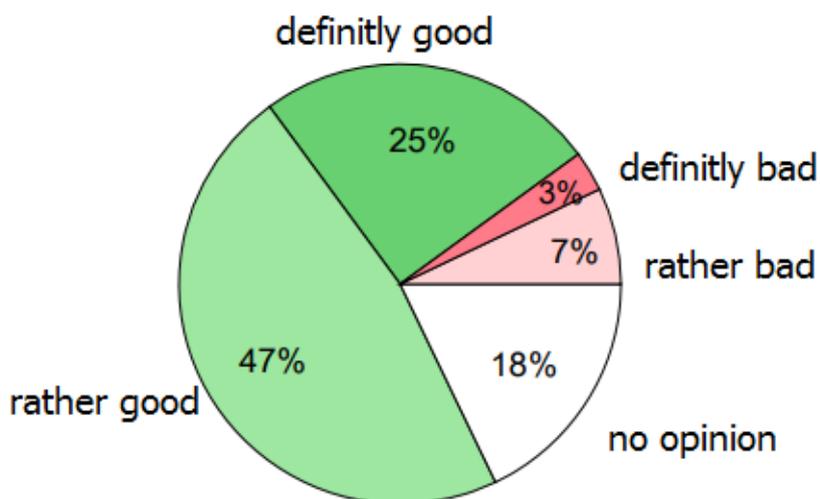


Chart 1. Social reception of the vocational education reform of 2017

Source: Komunikat z badań: Polacy o reformie systemu edukacji, Centrum Badania Opinii Społecznej, Warszawa 2017, s. 12.

A survey conducted by CBOS indicates the fact that the majority of respondents believe that the introduction of two-level branch schools will enable the adjustment of education in schools to the needs of the labor market, improve the quality of education and will enable the full implementation of the curriculum.

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