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Reform in Polish vocational education

The article presents the essential concept of reforms, implemented in Poland's education system since the early 1990s and some of their outcomes. Special attention is paid to one particular aspect of the reforms, i.e. structural diversification of the system, leading to diversification of education levels and corresponding diplomas. The article argues that this approach promotes better access to education since it takes account of young people's capabilities and educational aspirations. The article refers to selected aspects of the structural reform of post-primary education and its fundamental assumptions; it also highlights some effects of the implemented changes. Looking at the process of implementing a two-cycle structure of education (bachelor's and master's) in tertiary education, attention has been drawn to the difficulties connected with the social acceptance of the first degree of studies (bachelor's = licencjat), which, in the official rhetoric, have been referred to as vocational studies.

Background

The scope and nature of reforms in education, from primary through secondary to post-secondary level, are different from those in higher education. An important distinction between the two areas is the degree of independence in defining educational policies.

Primary and secondary education level is characterised by centralised management, although it should be stressed that schools have been given a certain degree of freedom in this respect (Education Act of September 7, 1991). Meanwhile, particular schools had to wait for favourable conditions facilitating a comprehensive reform of the system as a whole. As a result, implementation started in September 1999.

The Higher Education Act of 12 September 1990, gave HE institutions the right to define their own educational and research policy, limiting the competences of central administration⁽¹⁾. The changes, inspired by the academia since the 1990s, have led to radical structural and curricula transformations over a relatively short time. As a bottom-up process, it has not been progressing evenly, even though it has spread in the majority of HE institutions.

Despite the differences and the time shift, the reform and changes which have been taking place in the two areas seem to have some common traits, partially rooted in governmental education policy. According to that policy, the education system should help to ensure equal opportunities for young people and to expand the coverage of secondary and higher education. This means, among others, the need to adjust the system to the diverse abilities of the young and guarantee them an opportunity to continue education at a higher level, depending on their

educational aspirations. At the same time, there is a need to differentiate the educational offer and to establish closer links between different levels of education, especially secondary and tertiary.

Documents formulated by international bodies seem to point to diversification as a way to enhance credibility in education quality (ISCED, 1997). A view is expressed that shorter education cycles ensure better cross-national comparability of academic degrees and occupational competences (Bologna Declaration, 1999).

The changes in HE occurring in recent years have led, in most countries, to an unparalleled diversification of education levels, diplomas, titles and degrees. In the context of unifying Europe '... this jungle of degrees and systems is the biggest obstacle to mobility in Europe. ... there are even more structures than countries in Europe: in some cases there were up to 100 different academic qualifications found within a single country' (Wende, Westerheijden, 2002, pp. 118-119). In the light of ideas set out in the Bologna Declaration, this factor hampers the development of the European higher education area because it makes cross-national comparisons difficult and sometimes even impossible.

The Bologna Declaration, signed in 1999 by 29 countries, provided Europe-wide momentum for efforts to streamline the structure and adjust the nomenclature associated with diplomas, professional/vocational titles and academic degrees. In keeping with the declaration, many countries from outside the British tradition have introduced or are now introducing bachelor/master programmes (Westerheijden, 2002; Two decades of reform in higher education in Europe: 1980 onwards, 2000).



It is assumed that comparisons of curricula leading to a bachelor degree are more feasible than comparisons across uniform master's curricula. Moreover, the declaration suggests that the first level (bachelor) should be closely adjusted to market requirements.

The article presents some measures intended to facilitate implementation of the existing guidelines, with regard to local conditions and international perspective.

The Polish educational system: reform and changes

Two aspects of the reform seem to be essential: structural changes and establishing standards rendering possible comparison of qualifications, recognition of certificates and diplomas which would certify completion of each stage of education.

The key features of the structural reform of the education system and examination rules are briefly described below ⁽²⁾.

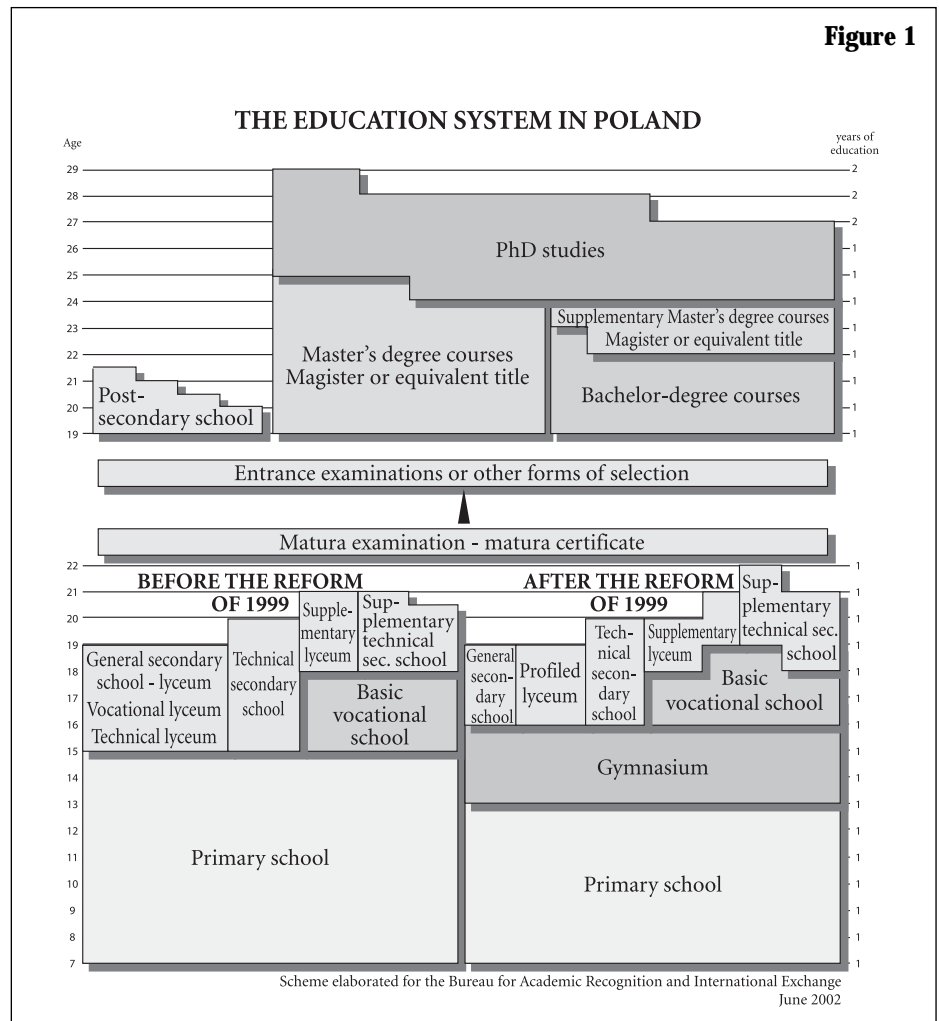
Obligatory common education has been extended to nine years. The former eight years of primary education have been replaced by two levels: six years of primary school and three years of gymnasium. The gymnasium constitutes the lower secondary level of education, providing advances in broad profiles and helping pupils to develop social skills and abilities.

Diversified post-gymnasium education includes six types of schools. A comprehensive secondary school plays two roles:

- ❑ three-year general secondary school, leading up to matura examination, intended for graduates of post-gymnasium schools, who wish to continue their education at higher level;
- ❑ two-year supplementary lyceum, for graduates of basic vocational schools who wish to obtain a complete secondary education.

Among the remaining types of school, three offer a diploma which confirms vocational qualifications:

- ❑ four-year technical secondary school, awarding a vocational qualification diploma; the matura certificate can be obtained after graduation from the fourth grade of the school;



❑ two to three-year basic vocational school, awarding a vocational qualification diploma. Completion of the supplementary schools (iii and iv below) allows graduates to take the matura examination;

- ❑ three-year supplementary technical secondary school for graduates of basic vocational schools. The school awards a vocational qualification diploma and leads up to the matura examination;
- ❑ three-year profiled lyceum, providing general vocational preparation, leads up to the matura examination as well.

The Scheme has been elaborated by the Bureau for academic recognition and international exchange reporting to the Minister of National Education and Sport <http://www.buwiwm.edu.pl>.

The reform of vocational education was founded on the principle of broadly-profiled education, which is intended to support flexibility and vocational mobility

⁽¹⁾ The government retained control directly through the Ministry of Education (now Ministry of National Education and Sport) or delegated competences to representative bodies of the academic community. Among other things, the latter retained control over minimum curriculum requirements and conditions for establishing new areas/subjects of study. Compliance with the regulations in this respect has been entrusted to the National Accreditation Committee (PKA) since January 2002.

⁽²⁾ Details on the reform of education, its stages and particular focus on vocational training are presented in annual reports prepared under the National Observatory programme funded by the European Training Foundation (See National Observatory, 2002).



throughout the career. The reform policy promotes general education and increases its share in vocational post-gymnasium schools.

One of the positive result of the structural reform in post-gymnasium education is the promising attempt to eliminate 'the cul-de-sac of education', i.e. basic vocational education, pursued by a significant proportion of young people ⁽³⁾. Those narrow-profile schools virtually deprived teenagers of the chance to obtain a matura certificate and to continue their education at a higher level. Graduates of basic vocational schools are the highest category of the unemployed in Poland.

In 2002, 77 % of gymnasium graduates attended schools which offered various types of complete secondary programmes; 47 % of gymnasium graduates had chosen general secondary schools, intended for young people who wish to continue their education. Those who decide against going to university can train for an occupation in post-secondary schools. In recent years, there has been dynamic growth at this level of education, especially in the non-state sector, with up to 2.5-year post-lyceum schooling resulting in a vocational qualification diploma.

The structural diversification runs in parallel with the standardisation of examination requirements. The previous principle, which provided for internal examinations only, has been replaced by examinations with elements of external assessment. Alongside the structural changes, this is the second important feature of the reform in education, implemented since 2002.

In 1998, the Minister of National Education and Sport entrusted the Central Examination Committee and regional examination committees with the standardisation of external examinations. At present, nearly all levels of education end with an examination (or a test) based on uniform requirements. The test conducted in the last grade of the six-year primary school is intended to provide feedback for students, showing them the areas where their performance has been satisfactory and those which require harder work.

The school year 2002/2003 was the first year when admissions to post-gymnasium schools depended, among other factors, on the re-

sults of indicative examinations conducted at the end of gymnasium education. The examinations, conducted in accordance with unified nation-wide requirements, were designed to assist students in making the right decision when choosing a post-secondary school. The examinations were held by regional examination committees.

One example of an external examination in Poland is the exam confirming vocational qualifications. Since 2004, graduates of vocational schools have had the opportunity to confirm their qualifications with an exam (theoretical and practical) organised by authorised centres, e.g. schools, educational establishments or employers. Standard requirements are developed for specific occupations listed in the Classification of occupations for vocational education.

The matura also represents a complete departure from the previous practice of internal examinations in favour of an external assessment system. One of the goals of the new matura format was to replace (in whole or in part) higher education institutions entrance examinations. Senates in most public higher education institutions decided to recognise the matura results but, in many cases, additional admission requirements were defined. Matura examinations in the new format will be held for the first time ever in 2005.

At this stage of the reform, it is too early to assess its outcomes. It is also difficult to assess the external evaluation system or efforts to improve transparency of results. Considerable adjustments to original assumptions and delayed implementation of certain elements of the reform distort the rhythm of work and logical sequentiality. As an example, in the preparatory work for external examination confirming vocational qualifications, examination standards were developed before the vocational qualification standards. However, such occurrences are hard to avoid with a comprehensive reform such as this and they are an inevitable element associated with the complexity of the entire undertaking.

Transparency through diversification in higher education: Bologna Declaration and status quo

The essential changes associated with structural diversification of diploma programmes

⁽³⁾ In 1989, education in those schools was continued by 45.9 % of primary school leavers; in 1996, the respective percentage was 34 % and in 2002, 23 % (Education in the school year 2002/2003, Polish Central Statistics Office, GUS, Warsaw 2003).



in Poland occurred in 1991-1994, i.e. long before the Bologna Declaration. Unified at that time, the system began to transform into a multi-level structure.

Alongside the five-year uniform and theory-focused master's degree programmes which prepare students for research work or highly qualified professions (e.g. doctors, teachers, lawyers), a two-level system structure has been gradually implemented. The first level comprises three-year programmes leading to the licentiate title and four-year engineering programmes (equivalent to bachelor degree); the second level is a two-year supplementary master's degree programme.

Programmes leading to a licentiate title were the first ones to arrive in academic institutions of higher education. Most universities were language teaching colleges with an independent organisational status. Short programmes offered a chance to increase the headcounts of first year students (the essential ratio considered for allocation of state funding) and ensure higher subsidies. For academic institutions, such programmes were a way to survive the hardships of reduced government funding rather than a response to public demand or the needs of an economy in transition.

The non-public higher education sector has been developing in parallel with these changes in public education. Non-state HE sector was, and still is, based on short, mostly three-year licentiate programmes, vocational by definition, and, as such, became the starting point for Poland's binary system within higher education.

In legal terms the concept of higher vocational education first appeared in 1997, when the Act on higher vocational schools of June 27, 1997 came into force. Under this act ⁽⁴⁾ the binary system was legally sanctioned. It paved the way for public schools which responded to local market needs ⁽⁵⁾.

Data provided in Table 1 reflect the diversification of higher education levels in the past decade. Between 1994 and 2002, the share of students in licentiate programmes in the total number of students rose from 25.4 % to 43 %. Hence, this phenomenon has had a considerable impact on the overall picture of higher education in Poland. Notably, while the proportion of students in master's and licentiate programmes in the

Students by level of higher education

Table 1

Level of study	Academic years / students (%)						
	1994/95	1996/97	1997/98	1998/99	2000/01	2001/02	2002/03
Uniform master degree programmes (5 years)	71.2	58.3	53.5	49.3	44.8	44.0	43.4
Supplementary master-degree programmes (2 years)	3.4	6.0	7.1	8.4	10.8	12.4	13.6
Licentiate/engineering programmes (3-4 years)	25.4	35.7	39.4	42.3	44.4	43.6	43.0

Author's own calculations based on yearbooks: *Szkoły wyższe w roku szkolnym 1994/95 -1996/97* [Higher education establishments in 1994/5 -1996/7], *Szkoły wyższe i ich finanse w latach 1997-2002* [Higher education establishments and their finances in 1997-2002], - Polish Central Statistical Office GUS, Warsaw, 1992-2003.

public sector tended to stabilise, the proportion in master's programmes in non-public universities has been growing steadily since the 1998/99 academic year (Table 2). This reflects the aspirations of the non-public HE community to assume attributes of academic institutions (a phenomenon known as academic drift), the right to conduct master's degree programmes being one of such attributes.

According to the official rhetoric, all first level of higher education programmes (e.g. leading to licentiate/engineer degree) are considered vocational. Otherwise, the programmes are supposed to have:

- (a) industry-orientation and a significant proportion of specialist knowledge in curricula;
- (b) practical training as an important component;
- (c) a shorter period of study (usually three-four years).

Are there enough reasons to justify this 'aggregated' view on licentiate/engineer programmes ⁽⁶⁾?

The question arises whether programmes with such varied origins can have any congruent teaching profiles and, moreover, a vocational profile, as suggested by the legal regulations? Further on, does the position of such programmes within academically focused institutions ensure the market-orientation expected of vocational studies? Doubts stem from the fact that the academic community is commonly thought to perform poorly in teaching practical skills, whereas academic education is focused on knowledge disciplines (see Barnett, Dunne and Carre, 1999).

⁽⁴⁾ This direction of systemic transformation (transition from integrated to binary HE systems), initiated in the 1960s, still finds supporters today (Teichler 1999).

⁽⁵⁾ After the act became effective, non-state HE establishments have also been founded on this basis; earlier on, they operated under the legislation applicable to academic institutions. The 1997 Act imposed several detailed requirements (i.e. mandatory 15-week practical training for schools founded under this act) which were not applicable to academic institutions.

⁽⁶⁾ Further on in the text we will use the term *licentiate* to refer to short, three to four-year studies. Approximately 2/3 of students in such programmes are enrolled in licentiate.



Students in master's and licentiate/Engineering programmes by state and non-state HE institutions (%)

Table 2

	Level of study	Academic years / students (%)						
		1994/95	1996/97	1997/98	1998/99	2000/01	2001/02	2002/03
Total	Master's	74.6	64.3	60.6	57.7	55.6	56.4	57.0
	Licentiate/engineer	25.4	35.7	39.4	42.3	44.4	43.6	43.0
State	Master's	77.5	72.7	72.1	71.8	70.5	70.3	69
	Licentiate/engineer	22.5	27.3	27.9	28.2	29.5	29.7	30.4
Non-state	Master's	38.6	18.3	16.8	17.7	20.6	23.6	26.4
	Licentiate/engineer	61.4	71.7	83.2	82.3	79.4	76.4	73.4

Author's own calculations based on yearbooks: *Szkoły wyższe w roku szkolnym 1994/95 - 1996/97* [Higher education establishments in 1994/5 - 1996/7] *Szkoły wyższe ich finanse w latach 1997-2002* [Higher education establishments and their finances in 1997-2002], - Polish Central Statistical Office GUS, Warsaw 1992-2003.

In public perception, government-funded academic institutions carry students in licentiate programmes to the level corresponding to the first degree of university studies with a theoretical focus (e.g. bachelor degree, academically oriented), whereas programmes offered by other types of HE institutions are thought to have a vocational profile.

There has been an attempt to validate these views in empirical research ⁽⁷⁾ based on opinions collected from students, rectors and employers. Below are the findings from surveys conducted in 2001 with third year full-time students in licentiate programmes ⁽⁸⁾.

The problem is illustrated in analysis of students' expectations of licentiate programmes set against the chances of those expectations being fulfilled.

Despite the polarisation, the prevalent view is that the main goal of three to four-year programmes is to prepare students to work in the respective occupations (Table 3). A significant proportion of those surveyed (40 %) see licentiate studies as the first level of general studies, which enables students to continue their education. Notably, this duality of expectations, sometimes parallel but often intertwined, occurs regardless of the place where the expectations are put to the test: in a vocational or an academic establishment.

Students who are most inclined to enrol in such programmes are those who have previously failed entrance exams to master's studies. This means that they see licentiate

as their 'second chance'. Hence, students at short programmes have postponed but not abandoned their educational aspirations. From their perspective, the three to four-year programmes are a way to achieve a master's degree. Consequently, they expect to acquire general education, which will enable them to continue their studies since the master's degree continues to be highly valued by the public.

A significant percentage of licentiate-to-be (more than 80 %) declare their willingness to continue their education (Table 4). At the same time, there is a clear trend to combine education with career, which explains the dual student perception of licentiate: an introduction to a job with an option to continue education, preferably in a public, academic-type establishment. This model seems to be most popular among students of non-public schools and public vocational schools.

The survey shows that students' expectations - irrespective of what they mean - are most effectively fulfilled by state vocational schools. Non-state schools are at the opposite extreme: a significant percentage of those surveyed negatively viewed their performance in preparing for career or education at higher level. Public academic establishments are widely recognised for fulfilment of academic goals but perform less effectively with regard to job preparedness (Table 5).

Higher vocational schools are more likely to address the needs of students who are primarily focused on learning an occupation and gaining some practical training. Conversely, academic, especially state, institutions will be more likely to fulfil the aspirations of young people who seek a general education even though they also offer industry-focused programmes ⁽⁹⁾. The question of fulfilling the aims of the Bologna Declaration has a two-part answer: fulfilment is broad in the quantitative sense but not very transparent at the qualitative level. We are dealing with a fairly advanced diversification of curricula but there are considerable problems with identifying qualifications confirmed by a licentiate diploma. In practice, some of the programmes concluding with the licentiate title - mostly offered in state academic institutions - are a counterpart to the first level of general studies, while some of them are vocational. The aims and objectives of the programme are not clear



enough to be explicitly understood by students. Consequently, employers are not certain whether a licentiate confirms higher education qualifications or perhaps just post-secondary education.

Those difficulties are less conspicuous at a local level. There are extensive information campaigns run by individual HE establishments, with media support. There are also popular rankings of schools and departments which offer a general idea of what to expect of school X or school Y regarding the education it provides.

Undoubtedly, at an international level, Polish licencjat and its underlying educational content would become clearer if a distinction were introduced between general studies and industry- or sector-oriented studies preparing students for a specific career. Furthermore, this solution would introduce greater clarity of diplomas, confirming an academic degree in the former case and a vocational title in the latter.

However, such changes would require amendments to current legislation, a time-consuming process with unpredictable outcomes. Thus, supplements to diplomas, listing the subjects and the associated skills, seem to be a more realistic solution.

Conclusions

The effects of the structural reforms in Polish education, initiated in the 1990s, are evident only in higher education. At lower levels, adopted measures will produce an outcome in the longer term because the new structure in post-gymnasium education was started quite recently, i.e. in 2002.

However, the first positive effects of efforts towards system integration deserve mention. The academic community, which had previously defined its own admission rules, generally accepted the idea to replace matura and entrance exams with a single exam (new matura) based on transparent standards developed as a collaborative effort between secondary schools and higher education institutions.

Essential goals of licentiate/engineering programme: students' opinions by type of HE establishment (%) **Table 3**

Top-of-mind goals	State vocational schools	Academic establishments	
		State	Non-state
Preparation for work	56.3	53.9	54.2
First level of general studies	40.4	40.2	41.5
Other responses	3.3	5.9	4.3

Students in licentiate/engineering: plans after graduation by type of establishment (%) **Table 4**

Plans after graduation	State vocational schools	Academic establishments	
		State	Non-state
Supplementary master's degree studies	31.4	42.7	25.7
Supplementary master's degree studies combined with a job	55.2	34.8	63.1
Job	2.5	4.7	1.4
Other plans	1.5	1.8	1.1
Not sure yet	9.4	16.0	8.7

At higher education level, the introduction of two-cycle studies alongside uniform five-year master's degree academic programmes (preparing students for further research or highly-skilled professions) improves young people's opportunity of further education as it takes account of different levels in educational and academic abilities.

However, it should be noted that licentiate (equivalent to a bachelor's degree, both generally and vocationally oriented) is a new category, still struggling to attain social legitimacy in Poland. University education and master's degrees continue to be highly valued by the public. The new vocational sector, embracing state and non-state higher vocational institutions, is still seeking its identity. A significant proportion of those institutions are inclined to follow the ethos of academic institutions (academic drift) but the conditions in which they operate, especially problems with finding qualified staff, seriously limit these aspirations.

Essential goals of licentiate/engineering programmes and their fulfilment: students' opinions by type of establishment (%) **Table 5**

Answer	State vocational schools	Academic establishments	
		State	Non-state
Job preparedness			
Very good	13.3	7.5	3.8
Quite good	76.3	67.4	63.1
Very bad or none	10.4	25.1	33.1
Preparation for second level of higher education			
Very good	5.1	9.2	5.3
Quite good	79.3	80.2	73.4
Very bad or none	15.6	10.6	21.3



Bibliography

Bennet, N.; Dunne, E.; Carre, C. Patterns of core and generic skill provision in higher education. *Higher education*, 1999, No 37.

ISCED *International standard classification of education*. Paris: UNESCO, 1997.

National Observatory -Poland. Report, Task Force for Training and Human Resources Cooperation Fund, Warsaw: National Observatory, 2002.

Teichler, U. Higher education policy and the world of work: changing conditions and challenges. *Higher Education Policy*, 1999, No 12.

Two decades of reform in higher education in Europe. 1980 onwards. Brussels: Eurydice; European Commission, 2000.

Van der Wende, M. C.; Westerheijden, D. F. *Międzynarodowe aspekty jakości kształcenia - ze szczególnym uwzględnieniem szkolnictwa wyższego w Europie* [International aspects of quality assurance with a special focus on European higher education]. *Nauka i Szkolnictwo Wyższe*, 2002, No 2/20.

Westerheijden, D. F. *Mental and actual shifts to Dutch higher education in reaction to globalisation*, EAIR Forum, Berlin (paper), 2000.

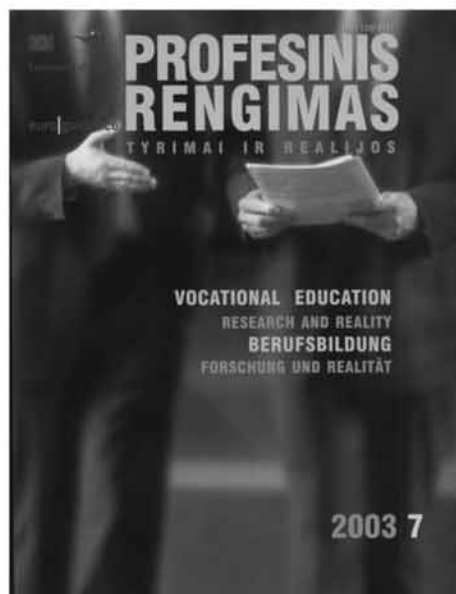
Wójcicka, M. *Studia zawodowe w Polsce*. Problemy i perspektywy [Higher vocational education in Poland. Problems and perspective], Warsaw: UW CBPNiSzW [Warsaw university, Centre for science policy and higher education], 2002.

Key words

Secondary education,
university studies,
non-university higher
education,
certification of competences,
vocational qualification,
academic degree



VOCATIONAL EDUCATION: RESEARCH AND REALITY



Vocational education and training journals have been published in all the countries of West Europe. In **Lithuania**, it is the first publication of this kind. Increasing world integration of science and activity has been the main factor that caused scientists and politicians to devote more attention to vocational education and training which aims at responding to complicated questions raised by contemporary society: how do human existence and human role change in the context of social and economic changes in the world? What is the mission of education and vocational education and training with regard to continuous learning and development of a democratic society? What principles should vocational education and training policy be based on? What structure, contents and methods of vocational education and training best satisfy the paradigm of meaningful life of a human?

This Journal has appeared as the result of a long-term co-operation between the Centre for Vocational Education and training at Vytautas Magnus University and many countries from West Europe, firstly, Hohenheim University, Germany. Therefore, even six vocational education and training scientists from foreign countries are the members of the editorial board of the Journal. One of the major

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