

Changes and challenges in Hungarian vocational training

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Abstract

The Jacques Delors' committee, entrusted by the UNESCO, mentions four basic pillars of 21st-century education. In this paper I present the system and the main challenges of Hungarian vocational training from these aspects. I analyse the changes in the structure of Hungarian labour market and its influences for the system of vocational training. The need has increased for qualified employment that results in a higher number of vocational secondary schools, but the number of vocational schools has been decreasing.

1 Introduction

Jacques Delors' committee, entrusted by the UNESCO, mentions a dual, and partially contradictory challenge for education. On one hand, it is the transmission of knowledge which is ever-changing, ever-renewing, and capable of meeting social requirements, and on the other, it is the offering of a mastery in the independent strategies of information acquisition and processing instead of quantity-oriented knowledge. According to the committee report, education is to simultaneously provide the map of a complex and ever-changing universe as well as the compass to navigate by. [1] In order for 21st-century education to be in harmony with the quantitative and qualitative structure of human knowledge, the committee mentions four "basic pillars":

- "it has to learn how to get to know something", which means the acquisition of comprehensive general knowledge and certain specialised skills, side by side with the formation and development of the ability to think and independently acquire knowledge,
- "it has to learn how to work", which means the application in the world of work of the theoretical knowledge mentioned above, demanding a shift of emphasis towards vocational training, "from skill to expertise",
- "it has to learn how to co-exist", which means the acquisition of co-operation in all human activities,
- "it has to learn how to live", which means the unfolding of the human personality in a broad sense, as a result of the above three points.

The UNESCO committee also shared the view that all four "basic pillars" were equally important within the framework of organised education to make "education, both at a theoretical and a practical level, a lifelong and global experience for the person as an individual and as a member of society."

The report mentions the three main principles of secondary education: the variety of training, the improvement of the quality of education, and the alternating "teach and learn" education. [1]

The enforcement of these principles concerns the organisational, content, and methodological reform of education. In the present paper I wish to show the system of vocational training, its characteristics and problems, after the political transformation, in the light of the UNESCO committee report.

2 Vocational training in Hungary in the years before and after the political transformation

Even in the years before the political transformation (1989), there was a lot of criticism concerning the structure of vocational training adjusted to the socialist economy. It became evident that the structure of vocational training based on large-scale and planned economy, and adjusted to a deformed economic structure could not meet the manpower demands of market economy. Presumably the major fault of the system of vocational training lay in the fact that 70-80% of the trades taught were connected with industry (heavy industry, machine industry, light industry, agricultural large-scale industry, industrial services) and only 20-30% were connected with services, trade, office management, tourism, etc.

According to the 1990 national census data, nearly 50% of manual workers, comprising three quarters of the active population, had only primary education, that is, they were unqualified. With the transformation of employment, in the era of mass unemployment, unqualified workers comprise some 60% of the unemployed, and within that, 80% of the permanently unemployed are unqualified.

The chart (4) based on data published in a study by Andras Benedek [2] shows a steady decrease in the number of unqualified school-leavers.

On examining the composition of the unemployed according to qualifications (4), it is to be seen that there is strict correlation between qualifications and the chances of becoming unemployed. [3]

The significant discrepancy between the demands of a changed labour market and the professional composition of the labour force, as well as the rigidity of the system of vocational training and the immobility of manpower, accounts for the great number of qualified unemployment. Taking into consideration the still high number of unqualified as well as qualified manpower made redundant due to the structural transformation of the economy, the continuous re-training and in-service-training of manpower is an important task (labour market vocational training, vocational training of adults). To achieve this, regional manpower-development and -training centres came into being in 1994, out of which nine are working in the country at the moment.

Multinational companies settled in Hungary have a basically high opinion of qualified manpower. To support this I mention the example of AUDI Hungaria Motor Ltd, which created an engine-assembling base with more than 3000 employees in Győr. The satisfying level of vocational training in Hungary and the town's history of machine industry both played a role in Audi's decision, because the replacement of qualified labour seemed ensured. As a result of the strict employment requirements set for manpower by the company, a highly qualified team of experts was selected. However, dynamic development made it necessary for the company to hire a great number of workers within a relatively short period of time, thus bringing to surface the "weak points" of qualified Hungarian manpower:

- "a committed attitude, which is responsible and also capable of seeing the various processes in their correlation, is necessary",
- as work takes place in teams, it is necessary for young people to graduate "young people graduate from schools with a better communal spirit and improved public awareness",
- a qualitative and quantitative improvement of the employee's professional skills, since the majority of applicants "does not seem to have appropriate information concerning modern engine technology",
- "the need for self-development, which is necessary and indeed essential for this kind of work",
- language (Hungarian, German) and professional communicative (oral, written, drawing) competency,
- acquisition of basic skills in computer technology. [4]

The main task of vocational training is the training of experts to meet the requirements of the national economy in numbers demanded by the labour market. Thus vocational training is becoming the "pulling power" of the economy because it has an influence on the competitiveness of the Hungarian economy, too. Indirectly, these expectations are stated in the AUDI survey.

All these facts justify the need to thoroughly update the contents and organisation of vocational training, the elements of which have been:

- the expansion of the circle of people acquiring qualifications,
- a complete transformation of the structure of professions and its placement on labour market foundations,
- elaboration and operation of programmes for re- and in-service training,
- harmonisation of general and vocational training,
- postponing the choice of career to a later age in life,
- the development of the flexibility, traversability and modularity of vocational training,
- the development of a structure of vocational training based on the secondary school leaving examination, and with differentiated times of training,
- the development of a vocational training market, beside the preservation of state supervision,
- the preservation of institutional structure,
- the involvement of employers into vocational training, similarly to dual training (Berufsschule),
- the enforcement of employers' interests in the renewal of the contents of vocational training (chambers),
- the transformation of the financing of vocational training,
- the development of technical teaching aids,
- assuring continual in-service training for teachers taking part in vocational training.

All these objectives are outlined in a unified Law of Vocational Training, passed by the Hungarian Parliament in 1993. The law discusses vocational training as separate from public and higher education. At the same time, it includes traditional vocational schools, school-based vocational training and labour market training in one and the same frame. Every such form of vocational training comes within the provision of the law, which is directed at:

- basic professional training to provide a foundation for vocational training,
- the acquisition of vocational training necessary for a particular field of activity or profession,
- the acquisition of skills necessary for a higher-standard practice of a particular professional activity,
- training to rehabilitate people at a disadvantage,
- training to promote placement and enterprise.

The Hungarian Law of Vocational Training states the right to a first qualification, the financing of which is granted by the state.

The entire system of vocational training is demonstrated by the chart below. [3]

3 The present day situation of vocational training in Hungary

The period of secondary education starts in year 9 and continues till year 10 or 12, depending on the type of school. In year 10 (school leaving age) the end of education is marked by a general knowledge examination, whereas in year 12 by a secondary school-leaving examination. Accordingly, at vocational schools an ISCED level 3.3, and at secondary vocational schools an ISCED level 5 qualification can be obtained, respectively.

As shown by Figure (4) the general knowledge examination can be taken at three kinds of school (grammar, secondary vocational and vocational schools), according to requirements set by different syllabuses. In this respect the Hungarian school system is similar to the German, where the

considerations	forms
aim	providing first qualification
	training course
	in-service training
organisational form	within the educational system
	in the labour market (outside of educational system)
age-group	for youth
	for adult
type of institution	secondary school training
	(vocational school, vocational secondary school)
	higher educational training
	improving and retraining centre of manpower
	educational venture
on the basis of	having any professions
	not having any professions
	having primary school qualification
	having secondary school qualification (e.g. technician)
	post secondary
	any higher professions
financial support	state
	self-governing
	ecclesiastical
	foundation
	venture

Table 1:

equivalent of grammar school is the *Gymnasium*, that of secondary vocational school is the *Realschule+Fachoberschule*, and that of vocational school is the *Berufsschule*. The institutional system in Hungary is rather complex, because the relatively homogeneous structure, which better reflected the school system, has been changed since the political transformation. Especially vocational schools have started secondary vocational classes one after the other, and secondary vocational schools grammar classes. Some schools launching simultaneous vocational, secondary vocational and grammar classes have come into being. At the period of general knowledge acquisition in secondary vocational and vocational schools (years 9 and 10) there is also professional orientation and the teaching of professional foundation subjects. This, however, also applies to secondary vocational schools in the second phase of secondary education (years 11-12).

School-system vocational training, following a general knowledge or a school-leaving examination, may prepare students for a professional exam or provide them with skills necessary for employment. School-system vocational training programmes can be organised for students having taken part only in elementary education until the school leaving age (age 16) (ISCED- level 3.1).

Examining the three types of secondary education mentioned above (grammar school, secondary vocational school and vocational school), we can see a significant demand both at the level of students and the labour market, for more and more qualified experts, which affects the qualitative reorganisation of manpower. This fact is supported by Figure 4, prepared on the basis of data published by Istvan Luko [3]. It shows that in 1995 about 70% of school leavers obtained a secondary school-leaving examination, and this was followed by studies at an institution of higher education or ISCED level 5 vocational training, thus contributing to a higher standard of vocational training. This way, the choice of career is postponed to an age later than 18, and it is founded on well-grounded general knowledge as well as basic professional skills.

According to the Law of Vocational Training, qualifications accredited by the state are contained in the National Qualifications Register (NQR). The NQR is issued by the Education Minister, but the professional and examination requirements are prepared by the departmental ministries. The NQR has been supervised every year. Figure 5 presents a detail from the NQR. The system of designations and requirements for qualifications is in agreement with international recommendations and standards (ISCED, ISCO). A general knowledge or a secondary school-leaving examination is prerequisite for the majority of professions, and training takes 1, 2 or 3 years accordingly.

The professional and examination requirements have a uniform structure. They include the NQR data on qualifications, employability with the given qualification, as well as the professional and examination requirements.

4 Challenges facing vocational training in Hungary

The Hungarian system of vocational training has experienced great changes over the last 10 years. Having studied the system of vocational training in EU countries, we have succeeded in elaborating a system true to the traditions of Hungarian vocational training, and, at the same time, compatible with the systems in Western-European countries. A system, however, can never be closed; it is organically developing. The system of Hungarian vocational training is no exception. Let us see, then, the challenges Hungarian vocational training is to face in the future.

Training for professions that have a lowered esteem at the labour market needs to be limited. This shows the measure of labour market sensitivity that the system of vocational training has, as it presupposes immediate feedback from employers to vocational schools.

- The development of professional requirements and curricula on a modular basis will have to be made general, ensuring traversability between professions. They can also contribute to a decrease in significant dropping-out - especially typical of vocational schools - and to the acquisition of a qualification best suited to the student's abilities.
- The efficiency of vocational training could improve by a unified professional foundation for related professions, and this would be followed by specialisation. A possible realisation of this could be vocational group training at special group training schools. The Hungarian educational system has already seen some such experiments.
- It is important to draw attention to the anomalies of the system of vocational training, the elimination of which is still a task of the future. I would mention two of them now: post-

secondary vocational school specialist studies and the question of further studies following vocational school.

The secondary vocational school plays a dual role: on the one hand it provides a NQR profession, and, on the other, it prepares students for further education. Up to year 12 at secondary vocational schools professional founding only can take place, which comes useful with further specialist studies but is by no means sufficient. It is a lot more advantageous for the student to get a secondary NQR profession (in year 13 and 14, or possibly 15) and to continue their studies at a special institution of higher education. It might therefore occur that two students, who attended the same secondary vocational school, finish their studies with three years' difference, since one of them enters the particular institution of higher education after year 12, that is the secondary school-leaving examination, while the other does it after the professional examination. Which way is more beneficial to the individual, the society, and from the point of view of higher education requirements and economic efficiency alike?

Vocational schools prepare for the acquisition of basic level NQR professions. The question rises whether capable young skilled workers can make use of the traversability of the system of vocational training: whether they can take a secondary school-leaving examination and find a NQR profession. The present system allows students to take a secondary school-leaving examination at correspondence courses in secondary vocational schools and get trained for a profession in adult education. This means being downgraded to year 9. The solution could be a unified general knowledge examination, because in this case studies could be continued in year 11 of the secondary vocational school.

- The content reform of vocational training cannot be postponed, either. At the moment, the subject matter lags 5-10 years behind up-to-date technologies. Unfortunately, the expansion of the sources of the vocational training system is not to be expected in the near future, therefore a greater involvement of employers into education is important. Laszlo Varadi and Laszlo Futerer [4] write about a possible solution: "AUDI Hungaria Motor could provide the practical experience - professionals, even contracted instructors, and advanced technical and technological information, both theoretical and physical -, while the institutions of vocational education could contribute pedagogical experience concerning the development of curricula and transfer of knowledge."

At the same time, the dual quality of vocational training has been realised, because professional theoretical training takes place at vocational training schools, whereas practical training is linked with companies and entrepreneurs. Students can do their professional practice in lifelike situations. Employers do not, unfortunately, have modern apprentice workshops, etc. yet.

The fact that professional practice is only possible in the third out of three years at vocational schools contradicts all this. It is questionable whether this is sufficient for workers to acquire all the skills necessary for effective work.

- Up-to-date vocational training is impossible without well-trained teachers. After the political transformation vocational teacher training has also been renewed in content and structure alike. At present there are 8 institutions of higher education where future professional teachers are being trained. Training takes place at college or university level and provides two qualifications: degrees in engineering and engineering education. The degree of the qualification is determined by that in engineering: B Eng. or M Eng. The problems mentioned earlier doubly apply to higher education: outdated technical background, lack of resources, etc., because teacher-engineers trained under such circumstances should be teaching modern technology in vocational training, not to speak of specialist teachers who have been working in vocational education for decades. Taking all this into consideration, we believe that the pedagogical (methodological courses) and professional (engineering courses) in-service training of specialist teachers with some work experience is equally important. In-service teacher training programmes first appeared in Hungary in 1996. These primarily take place in institutions of higher education, which bears a positive influence on the quality of training.
- As can be seen from the AUDI report, the development of young skilled workers' knowledge of computer technology is important. In the last 5 years information technology as a subject has appeared at the level of primary and secondary education. At the level of vocational training profession-related subjects in applied computer technology have appeared.

- The development of an innate need in students for self-education has to be a significant pedagogical programme at the level of school-system training. This need is enhanced by the IT revolution, therefore professional in-service training courses are becoming more important. These may take place at companies in an institutionalised form, through correspondence courses (like Open University), self-education, or vocational training programmes of educational enterprises (lifelong education).
- It is a special objective to bring the eastern, more backward regions of the country into line by enabling the masses of unemployed, the majority of whom are gypsy, to learn competitive professions.

As it has been seen, vocational training in Hungary has experienced an essential structural, organisational and content renewal. There are always two motivations at work for development: on the one hand it is the preservation of the values of the several-century-long traditions of Hungarian vocational training, and on the other hand, their successful combination with the relevant experience of the European Union. These two points of view enjoy a priority with respect to future development, too. These priorities lead to Hungarian education living up to UNESCO committee recommendations mentioned in the introduction.

Figure 1: Division of education system leavers

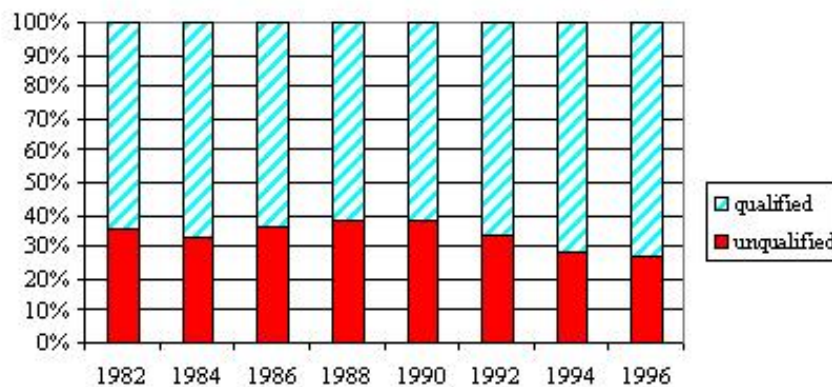


Figure 1

Figure 2: Division of the unemployment

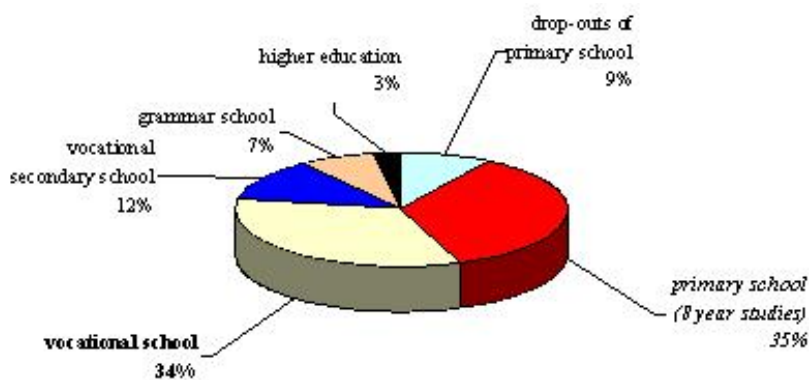


Figure 2

Figure 3: School system in Hungary

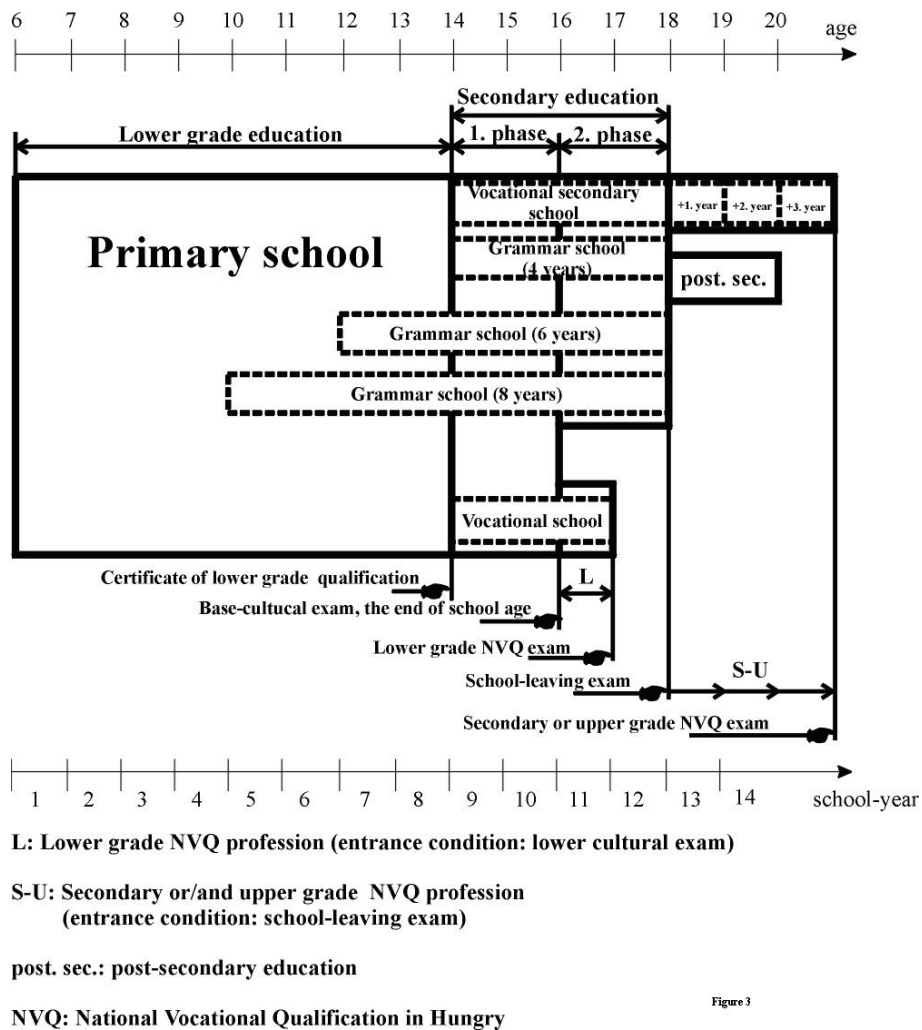


Figure 3

References

- [1] *L'éducation - un trésor est caché dedans. Rapport l'UNESCO de la Commission internationale sur l'éducation pour le vingt et unième siècle, présidée par Jacques Delors* UNESCO - Editions Odile Jacob, Paris, 1996
- [2] Benedek András és mtsi. *Szakképzés - versenyképesség - költséghatékonyság - fejlődés.* Szakképzési Szemle 1995/1. 6-21p.
- [3] Lükő István *Környezet - társadalom - szakképzés.* Műszaki Könyvkiadó, Budapest, 1999. p170
- [4] László Váradi - László Futterer *AUDI's requirements and the potentials of vocational education in Hungary.* Vocational Training review 1999/4. 557-561p.

Figure 4: Division of the ratio of the students is plotted against type of the school

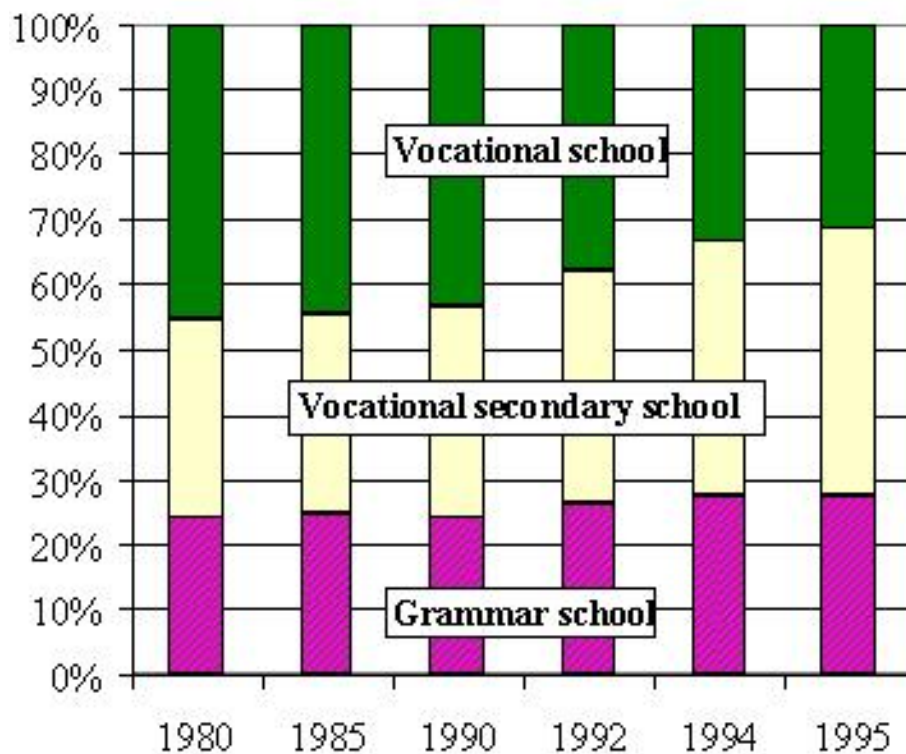


Figure 4

Figure 5: Particulars from Hungarian National Vocational Registration

Level of qualification	ID number of qualification		Name of qualification	Hungarian Standard Classification of Occupation by ISCO	Year of registration	Qualification exclusively obtained in school-based vocational training	Training time			Previous training	Aptitude (career and professional)	Minister entitled to define the system of professional and examination requirements	Chamber entitled to organize master's examination	Notes
	Study area	Number					Number of years	Theory percentage	Practice percentage					
54	4641	04	Computer technology programmer	3132	1993	in and out of	2	60	40	s	-	EM	-	-
52	4641	03	Computer technology software operator	3139	1993	in and out of	1	60	40	s	-	EM	-	Maybe EC DL exam
33	4641	01	Computer operator	3139	1993	in and out of	0,5	40	60	b	-	EM	-	Maybe EC DL exam

Marking and abbreviation:
 ISCO - International Standard Classification of Occupation
 EC DL - European Computer Driving Licence
 EM - Educational Ministry in Hungary
 s - school-leaving (final) exam
 b - base-cultural exam

Figure 5