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Educating for the Labor Market

The “National Development Plan” (2000-2006) has granted human resources the pivotal role in sustainable development. The new orientation has placed education and training in the centre of sector-based policies and established new priorities. At any rate, the public recognition of the fact that economic and social reforms could not be carried out without educational reform is a positive foundation since, so far, education was more a matter of rhetoric than a real priority on the Romanian Governments agenda until late 1990s.

The OECD report regarding the Romanian education system praises the reform project for the system of education (financed with the World Bank support and also benefiting from EU assistance – especially through Tempus, Phare, Leonardo and Socrates programmes for higher education and those of other agencies which offered bilateral or multilateral assistance) succeeded in triggering some important changes: e.g. new education plans, a greater variety of textbooks for teachers and parents of an improved quality, development of expertise in designing the new curriculum in the field of evaluation and educational management etc. The similar project in the higher education, also accomplished with the support of the World Bank, led to the strengthening of university autonomy, introduction of financing methods based on certain formulae for promoting equity and openness, together with a system of providing financial help, on the basis of competition, for research and development projects.

The question is however to what extent these changes managed to lead to the achievement of the general targets, to a real *encompassing reform*, that puts the education system in accordance with the development of the Romanian society towards liberal democracy and a market-based economy, and moreover transforms the education system in the engine of modernization of the country. To what extent do intentions to produce radical changes at the level of education had visible effects for the pupils or students who graduated the different levels of education.

The paper will address the main trends in education policy, including most recent developments, from the point of view of employability of the graduates. Aiming this, we have selected to analyze compulsory education, the level where the pupils are supposed

to acquire the pre-requisites of the skills and knowledge important for their future insertion on the labor market. Further, the focus will shift to the two forms of education that lead directly to the labor market - vocational education and higher education.

I. Compulsory Education

Our analysis will follow the three strategic objectives which, according to the study *Vocational Education and Training against Social Exclusion*¹, grounded the priorities of pre-university education in the period 1998-2001:

- (a) *enrolment* of entire school-age population into a form of education in parallel with ensuring individual education routes and development;
- (b) ensuring *quality* of the overall educational offer and, particularly, of the learning environment in each classroom, using as references the national standards in parallel with paying utmost attention to the observance of equal chances;
- (c) *institutional development* which represents a key-element in the fulfillment of the above-mentioned objectives.

School participation

An important phenomenon which affects negatively the educational process and questions the efficiency of the actions directed towards an increase in the coverage is *attendance*. In the last few years there has been a tendency towards an increase in the number of absences per pupil in the compulsory education, especially in secondary school and schools in the rural areas (probably due to supporting the family in farming activities). Moreover, the cases of dropout and no schooling, although slightly declining as compared to the 1991-1994 period, still register very high rates, as indicated in the table below. Recent research² emphasized that, beside socio-cultural, family or individual factors (poor health, attitude towards education, school achievements prior to the drop out) which cause or favor this phenomenon, a series of school factors have also influence.

Table 1.1 Percentage of graduates of the primary/secondary education in the cohort of the pupil enrolled in the I/V form, between 1990-2000

Debut year in Ist / Vth form		1987- 88	1988- 89	1989- 90	1990- 91	1991- 92	1992- 93	1993- 94	1994- 95	1995- 96	1996- 97
Graduation year IV / VIII-a		1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00
Enrolled (‘000s)	Form I	374.3	350.4	324.2	279.1	334.1	339.8	362.2	376.3	370.4	356.2
	Form V	383.6	378.5	370.9	372.9	357.1	333.4	302.7	262.7	309.0	313.9
Graduates (‘000s)	Form IV	328.8	304.1	273.3	244.5	295.1	303.1	324.6	335.0	330.3	324.6
	Form VIII	331.6	316.9	291.5	311.9	300.0	283.7	261.9	227.9	271.1	278.9
Percentage %	Form IV	87.9	86.8	84.3	87.6	88.3	89.2	89.6	89.0	89.2	91.1

¹ Camelia Gheorghe et al., *Vocational Education and Training against Social Exclusion*, Romanian National Observatory, Bucharest, 2000.

² Jigau, Mihaela, ed., *Participarea la educatie a copiilor si tinerilor din zonele rurale*, ISE, Bucharest, 2001

	Form VIII	86.4	83.7	78.6	83.6	84.0	85.1	86.5	86.8	87.7	88.8
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Source: ISE

One of the important factors is the quality of the system for staff training. This is considered by experts the least developed field from the whole education reform process³. This failure is the result of the absence of truly reforming changes in initial and continuous vocational training for teaching staff. The initial vocational training system stayed practically unchanged after 1989 (with the exception of moving kindergarten and primary school teacher education to university level). The system of continuous training, recently restructured through the establishment of two National Centers (unified in 2001) has failed so far to provide solutions to these problems. Evaluation and accreditation procedures for education services providers and the emergence of a free market in training programs are still wishful thinking.

Without going into too much detail it is worth noting that, at the level of compulsory education, there are still important discrepancies in the quality of human resources between rural and urban education⁴. Taking into account the number of teaching staff, including the student / teacher ratio (in the school year 2000/2001 this was 13.5 in rural areas as compared to 17.3 in urban areas) pupils in the rural environment seem to be better off, but this does not take into consideration the quality of human resources. There is a high proportion of unqualified teaching staff, and in the school year 2000/2001 it was twice as high in rural areas when compared with the urban ones: 25.8% as compared to 13.3% (which means that 67.7% of the unqualified teaching staff works in rural areas). The discrepancy between schools in the rural and urban environment in what concerns quality of human resources has been an issue for many years, with still feeble tendencies of improvement.

School performance has as basic roots individual factors - the level of physical and psycho-intellectual development, the state of health and others - and socio-family ones – e.g. original environment, level of education of parents, material condition. However, the fact that over 10% of the children in the rural areas are not enrolled in secondary education not only affects their subsequent development, but also questions the equality of chances regarding access to education. School failure, especially that which takes on the form of school dropout, occurs more frequently in the case of children coming from disadvantaged areas or population groups. In other words, schooling seems to fail to eliminate influences exerted by the family environment, by community, by the individual character of the educated and, therefore, to achieve complete equality of chances to gain access to education, and even less so in what concerns achieving school results.

Meaningful are also the poor results of the measures taken to improve participation in education of Roma children and youth. Various studies (*Țigani. Între ignorare și îngrijorare* - ICCV, 1998; *Copiii romi din România* - “Salvați Copiii” and UNICEF,

³ Iosifescu, Serban, Mihaela Jigau, Laura Capita, eds., *Impactul măsurilor de reformă la nivelul unității școlare*, ISE, Bucharest, 2001.

⁴ *Ibid.* p. 22

1999) indicate the fact that one of the categories of population that has been most seriously affected by the phenomenon of reduced participation to education are the Roma ethnics. Thus, in the case of preschool education, the participation of Roma children is almost four times lower than that of the entire population, and the inequalities continue in primary education - with approximately the participation rate 25% less than the average - and secondary school, in which case school attendance is 30% lower than average.

School results

Annalists emphasize the excessive orientation towards quantitative objectives⁵ (coverage, increasing the number of pupils attending secondary and higher education, multiplying centers of learning etc) as one of the deficiencies of the present system of education, qualitative exigencies often being pushed on a secondary plane.

First indicators we will discuss are related to school performance. As indicated in Table 1.2, with slight variations, both in primary and secondary school about 3.5% pupils never fulfill the minimum academic standards necessary to graduate. Taking into account that a pupil's failure and recurrent failure is one of the main causes of education dropout (a large share of the pupils who drop out of school have repeated at least once), it becomes clear that failure is one of the issues which require closer consideration at policy level. Although most schools declare that they run special preparation programs for pupils, data indicates that the incidence of this phenomenon is far from diminishing. In the rural areas, the rate of failure in compulsory education reaches over 7%.

Table 1.2 Failure rate

	1995	1996	1997	1998	1999
Primary	3,4	3,3	3,7	3,9	3,2
Secondary	3,4	3,3	3,7	3,9	3,8

Source: INSSE

Analysis of results obtained in the capacity examinations (graduation from compulsory education exam) in 1999 and 2000 indicate progress in what regards the number of graduates, but also the fact that practically almost one secondary school graduate out of five does not master the knowledge and competence necessary for passing such an examination. Also, pupils coming from schools in the rural areas have a substantially lower percentage of promotion (by about 15%) as compared to pupils from the urban ones, although in 2000 a 1% progress was recorded compared with 1999.

Table 1.3 Results of the Capacity Examination (1999)

Total number of candidates enrolled	261,345	
Of whom: attended	255,547	97.78%
Passed	198,364	77.63%
- from urban		82.73%
- from rural		67.54%
Did not pass	57,143	22.36%
Were eliminated	40	0.02%

Source: MEC, Direction for Education Informatization

⁵ *Educatia si Invatamintul- Orizont 2015*, Centrul Educatia 2000+, Bucharest, 2000

Table 1.4 Results of the Capacity Examination (2000)

Total number of candidates enrolled	260 350	
Of whom: attended	256 219	98,41%
Passed:	198 702	77,55%
- from urban		82,02%
- from rural		68,91%
Did not pass	57 486	22,44%
Were eliminated	37	0,01%

Source: MEC, Direction for Education Informatization

A truthful image of the performances of the Romanian pupils as compared to the pupils in other system of education at international level is given by the international monitoring Third International Mathematics and Sciences Study Repeat. In Romania, pupils from the 8th grade were tested in May 1999. According to the National Report TIMSS (ed. Gabriela Noveanu), the performances of the Romanian pupils in what concerns Mathematics and Science (Physics, Chemistry, Biology, Geography) lag far behind what specialists expected with regard to the Romanian education system, based on the fact that Romania has constantly ranked among the first nations at these subjects in international contests. This time for the examination pupils were selected on the basis of randomizing procedures, representative for the school population. The results showed that Romania occupies a more modest place, very close to the international average of the 38 participating countries

Thus, both in Mathematics and in Science the scores of the Romanian pupils do not differ significantly from those of the pupils in New Zealand, Lithuania, Cyprus, Moldavia, Italy, Israel or Thailand. Only 5% of the pupils in Romania rank among the first 10% pupils of all countries participating in TIMSS-R in Mathematics. The correspondent number is 6% in Science. By comparison, this group also contains 46% of the pupils from Singapore, 41% of the pupils from Taiwan and 37% of the pupils from Korea in Mathematics, and 32% of the pupils from Singapore, 31% of the pupils from Taiwan and 22% of the pupils from Hungary in Science, respectively.

Table 1.5 The average score on nations as compared to the average score of Romania (Mathematics):

COUNTRY	AVERAGE SCORE	STD ERROR
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Singapore	604	6,3
Korea	587	2,0
Taiwan	585	4,0
Hong Kong	582	4,3
Japan	579	1,7
Belgium (Flemish)	558	3,3
Holland	540	7,1
Slovakia	534	4,0
Hungary	532	3,7
Canada	531	2,5
Slovenia	530	2,8
Australia	525	4,8
....
ROMANIA	472	5,8
....
Chile	392	4,4
Philippines	345	6,0
Morocco	337	2,6
South Africa	275	6,8

Taking into consideration the score estimation procedure for each country and the margin of error of ± 20 points, the pupils from Romania have similar results with those of pupils from other 7 countries participating in the study, have superior results to their colleagues in 10 countries and are outrun by the pupils in 20 countries in Mathematics. In the case of Science the situation is identical, the only difference lying in the case of the countries with poorer results, their number dropping to 8. As compared to the previous evaluation of 1995, there have been no changes in what regards the Romanian pupils. It is to be noted that while especially gifted youngsters compete successfully with their colleagues from other parts of the world, the great majority of the Romanian pupils in Romania are more poorly and even more chaotically prepared than their generation colleagues from other countries. Romanian and foreign experts indicate that in Romania there still prevails a type of education focused on transmitting information at the expense of that focused on forming behavior or attitude, most of the time the curricula are overcharged, erasing the difference between the essential minimum of preparation any graduate should master and the maximum only a few elites can grasp. The introduction of a new curriculum in pre-university education starting in 1998/1999 only partially solved this problem.

The supplementary school year

The discussion on pupils' preparation for the labor market should be carried on starting from the perspective of compulsory education. As we have seen, there are certain losses during primary or secondary school and the rate of study continuation in secondary (higher) education is quite low. Under these conditions, approximately a quarter of the pupils who enrolled in the first form have to face entering the labor market at the end of the eighth form. These pupils will have little chances for an easy and successful insertion in the labor market since almost a third of the unemployed young people have no post compulsory education and account for more than a half of the long term unemployment for the young people (see data in the higher education section).

A solution introduced in the Law of Education was the extension of the duration of compulsory education, starting from the year 2003. The process of extending compulsory education with one year aims first of all to maintaining the youths in the system until the age of 15-16, an age closer to the legal minimum required for entering a job. Nevertheless, although the deadline is quite nigh, no decisions have yet been made regarding the changes necessary: organization, logistics, curriculum, impact upon secondary education. The decision to extend compulsory education implies both gains and losses⁶. One of the most important arguments pro is the opportunity for primary education graduates to acquire a minimum level of professional training, an important gain mainly for the youngsters who will be finishing their studies with this level of education. The risk of unemployment is thus diminished, accomplishing a harmonization of the age of graduation of compulsory education with the legal age of professional insertion in the labor market. A pre-professionalization within compulsory education could also cause a diminution in school dropout in the case of families from disadvantaged environments who, lacking financial means, do not encourage their children participation in compulsory education level unless they depict some practical finality in this effort from the viewpoint of professional insertion.

The risks this measure imply are generated mainly by the collateral costs that the family will have to support by the extension of the duration of compulsory education with one more year (two if we take into account the generalization of the preparatory year).

There could be adverse effects on the pupils who are interested in achieving a higher standard of education, and are thus less interested in job training at this age. A solution implemented at European level in the systems of education with unitary compulsory education is the introduction of a number of optional subjects, beside the main curriculum, that all pupils have access to, according to their interests. In Romania, the curricular reform included the school decision on curriculum, which entered practice in 1999 / 2000. Unfortunately, after the change of government in 2000, the weight of these classes has decreased, reaching only one hour per week.

Institutional development

Institutional development of education units has advanced slowly over the last decade. Schools still have a reduced managerial capacity, and little competence in attracting funding through projects. Managers from the education sector still spend half of their time preparing and teaching classes, and attendance of local or national training programs failed to improve the performance of their institutions in this respect.

A good indicator of the managerial capacity of the leader(ship) of the institution is the quality of its development plan. Unfortunately, even if the management has the expressed responsibility of drafting it, less than one third of all schools have produced a document

⁶ Cerkez, Matei, Mihai Jigau, "Prelungirea duratei invatamantului obligatoriu la noua ani: oportunitati si constrangeri", ISE, Bucharest, 2001

meeting the minimum standards. The low rate of following the education to the secondary level underscores the failures of the current management model of education performance that does not include the academic performance of pupils, and pays little attention to performance standards and evaluation criteria.

Even if a new system of school inspection has been introduced, and the majority of inspectors have taken part in training programs, the impact upon the management of schools has been meager. As the OECD report states, the inspectors face the challenge of changing themselves while they also act as change factors for schools and local authorities. That is why, as long as the staff roles and responsibilities are not defined on the basis of a development plan, establishing the general objectives, and the criteria for measuring success in achieving them, all these problems identified here will have little chance of finding a solution.

Compulsory education has changed least when compared with other segments of the education system. Hidden behind some spectacular achievements of bright pupils, there is a large mass of average results and declining coverage. Poor management at the local level and untrained teaching staff are the inner problems that have to be tackled.

II. Vocational education

The transformations on the labor market are very important for vocational and technical education (VET). This form of education has an important share in the total number of students and educational units at the upper secondary level of education, even if at the present the figures are less than half compared to '90 (see table 2.4). However, as a consequence of the restructuring of the industrial sector, the expansion of services and the expected decline of employment in agriculture, the structure of manpower demand is radically changing, requesting immediate adaptation of VET specialisations. At the same time the lack of growth of the Romanian economy works as a powerful constraint for the capacity of central and local authorities to finance and assist VET schools in their attempt to adapt to new realities, raising high hurdles for the reform process at this level.

Enrolment

The technological high schools have the focus on developing vocational competencies, by integrating the theoretical knowledge and practical skills, specific to the various trades and specializations. The structure of contents provides more extensive and profound knowledge than vocational schools. The vocational schools aim to provide the first level of training and qualification based on acquiring knowledge, social and action skills. Post-high school education is focused on advanced vocational training, on specialization and deepening vocational training.

The relative importance of initial VET is highlighted by an analysis of the Romanian upper secondary system. In the period 1990-1999, the percentage of general compulsory

education graduates who are admitted to secondary education oscillated between 98 and 92.5%, lowest in 1992 (88.4%), and showing a tendency to drop at the end of the interval. At the same, the gross rate of participation at this level of education was considerably reduced (by more than 20 %).

The difference between the (high) rate of passage from compulsory to secondary education and the (low) coverage rate in post-compulsory education is the result of the high ratio of children either not included in the system of education (3,5% in 1999), or who abandon school before completing the cycle of compulsory education.

Table 2.1 Rate of admittance to secondary education and the ratio of pupils in technical secondary education (1990-1999)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Rate of admittance to secondary education.	...	...	88,4	98,0	93,6	94,6	93,5	95,4	95,9	92,5
Approximate rate of pupils in secondary education	90,7	76,1	65,7	63,7	66,1	68,6	69,1	68,6	67,8	69,4
Percentage of pupils in secondary technical education out of the total number of pupils in secondary education	84,4	75,5	70,3	67,3	65,3	65,8	64,8	64,3	63,8	57,0

Source: INSSE

According to experts on Romanian VET⁷, the main reasons for the important decrease of technical secondary education are the diversification of the educational offer and the rising number of theoretical high schools. To these, the weakness of initial VET providers in upgrading equipments/technologies used in the teaching process and the limited use of information technology should be added

To increase participation in secondary education, implicitly vocational training, a series of measures were initiated, beginning with the school year 1998/1999: e.g. monitoring participation in education, identifying the causes of social exclusion; institutionalizing social partnerships between school, local public administration and parents organizations; increase the flexibility of the system, providing the possibility to continue the studies in high school education for graduates of vocational schools, based on transferable credits.

Table 2.2 Number and percentage of pupils in technological high schools and vocational education (1990-2000)

⁷ *Modernization of Vocational Education and Training in Romania, National Report – 2001*, Romanian National Observatory, Bucharest.

School year	Technological high school		Vocational and apprenticeship education		Total	
	Number	%	Number	%	Number	%
1990/91	782878	68,2	365860	31,8	1148738	100,0
1994/95	394562	57.7	288674	42.3	683236	100,0
1998/99	375976	62.3	227585	37.7	603561	100,0
1999/00	300627	57.5	222234	42.5	522861	100,0
2000/01	302209	55,8	239550	44,2	541759	100,0

Source: Romanian National Observatory

Post-secondary education (post-high school and foremen education), open to both graduates of the theoretical network of high schools, and the technological and vocational one, have developed in a spectacular manner since 1990. Although fluctuations occurred in 1993 and 1994, when unemployed increased and unpredictable changes took place on the labor market, the upward tendency remained. The approximate schooling rate in post-high school education has risen from 4.6% in 1995/1996 to 6.4% in 2000/2001 (dropping, however, compared to 1999/2000 – 8.2%).

Provisions of the Law of Education and a series of other regulations were aimed at encouraging and facilitating access to education, in particular to apprenticeship education. The measures were meant basically to i) develop institutional capacity - the possibility to establish apprenticeship schools on the premises of compulsory schools in rural areas and ii) to adapt contents - the curriculum for the technologies curricular area, designed on the basis of the national curriculum framework, is developed at school level together with social partners, consequently increasing the chances of local development and social-professional integration of graduates.

However, the effects of these measures meant to encourage participation in education are not yet visible, as the rate of admission to secondary education was smaller in the school year 1999/2000 compared to 1998/1999, similar to the case of pupils admitted to secondary technical education. The dropout rate is also high, as presented in the Table 2.3.

Table 2.3 Drop-out in secondary education

Year	General Education (theoretical high schools and vocational schools*)			Secondary VET with maturity exam (technological high schools**)			Secondary VET with qualification			Total Secondary VET		
	M	F	T	M	F	T	M	F	T	M	F	T
1999/00												
No. drop-out	5152	4189	9341	9808	7143	16951	8420	5229	13649	18228	12372	30600
% drop-	3,3	1,8	2,4	6,2	5,0	5,6	5,8	6,8	6,1	6,0	5,6	5,9

out												
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* The vocational routes cover the following profiles: plastic art, music, choreography, sports, pedagogic, teacher training, military, theological.

** The technological routes cover the following profiles: technique, agriculture, mountain-agriculture, forestry, economic, administrative, veterinary, special education.

Source: Data provided by Romanian National Observatory

Quality

The reform of the VET system in Romania was built around the Phare VET Programme, signed in March 1995. The wider objective of the programme was to support the Government of Romania in its policy reforms of the VET system, in particular secondary VET, to improve its relevance to the developing market economy and to assist the economic restructuring process. It started at two educational levels: that of the vocational schools and that of the post-high school, though it also had some influence on developments in the apprentice schools and the technical high schools. The Final Evaluation Report of the Phare VET Programme describes it as a success, especially in what concerns the reform occurred during the last few years. The programme had the aim and the ambition to modernise the VET system in view of its links to the labor market and covered 25 pilot schools and 50 demonstration schools. It was taken into account that the modernisation would have consequences for all kinds of aspects in the delivery of education: e.g. the content of curricula, teacher education, school management, qualification and certification.

The programme dealt with only two training and qualification levels, i.e. those of the *qualified worker*, through the vocational schools and the *technician*, through the post-high schools. These levels were considered to be the keys to enhance the process of reform and to deal with the concept of competitiveness as required by the economic transition. However, two other components of the VET system remained marginal, namely the *apprentice schools* and the *technical high school*. The Ministry of Education was recommended to counteract these limits by developing an integrated approach to VET, and introduce a community based type of apprenticeship, and a three-branch type of training and qualification in the technical high school.

However, despite the fact that some of these recommendations have been adopted and included in the amended Law on Education (1999) and the institutional framework of the social partnership was further strengthened by the creation of *social Partnerships* (multipartite consultative structures at national, county and local levels) there are several weaknesses and threats in ensuring the quality of the VET system, as will be presented below.

Institutional development

Studies of VET⁸ reform have signaled its importance in institutional development. Partnership projects, especially in rural areas, where the main partners are local community and agriculture based economic agents, are very difficult to put through. The poverty of resources of the rural local councils and the poor development of agriculture in many of these areas make it difficult to conclude a real social partnership in training. These same difficulties exist in under-developed regions of the country.

In the mean time there are a series of factors that block or make more difficult the collaboration with social partners, even when the dialogue has been initiated:

⁸ *Studiu de fezabilitate al continuarii reformei VET*, Romanian National Observatory, 2001

- the absence of a study on socio-economic development and of analysis on the local and regional needs of human resources development
- the instability of local companies, many of them under restructuring
- the absence of a monitoring system for VET graduates, what impedes upon the evaluation of the supply of training in professional and technical education, and prevents a feed-back on the quality of school training.

The determination of the number of school places and of specializations or training fields is based many times on ad-hoc decisions, taken under the pressure of unexpected external phenomena, without being based on the demand in the labor market. For exemplification, the entrance in the post-compulsory education based on the results in the capacity (i.e. end of compulsory education) examination has led in the academic year 2000/2001 to a flux of the demand for registration in vocational education. This situation determined a number of schools to supplement the number of places, without consideration for the employment perspectives of the future graduates.

Mismatches are also determined by the survival of specializations that are no longer demanded by the market, because it is a difficult decision for the manager to fire experienced and well performing professors, who used to teach these subjects.

Another matter of concern is the matter of internships with companies. Usually, co-operation in this field is difficult since there is no contract between the school and the economic agent that would provide benefits for both parts. The collaboration, when exists, is based more on pre-existing relations between the school and the company, and not upon a strategy of creating shared benefits for the companies working with the school.

Future needs

From the qualifications point of view, all levels should be refined and strengthened:

- *apprentice schools* should have curricula based on existing occupational standards;
- *vocational school* and *technical high school* should be defined as a more inclusive and flexible itinerary, allowing students to follow individual learning paths and exits;
- *post-high schools* should strengthen their capacity of dealing with high technology oriented specialisation.

Moreover, the restructuring process of the complex system of education and training has to redefine the pro-active role of VET in relation to the labour market, and to promote VET schools as centres for continuing education and training. Looking at the European experience, so far only Great Britain (colleges of further education) and The Netherlands (ROCs = Regional Training Centres) have created centres which provide initial VET, continuing education and other training.

The priority is now to continue and extend the reform, through the generalisation of strong points and opportunities, and finding ways for dealing with weak points and threats. This process will be assisted by the new Phare program launched in 2001 that will focus on priority areas, defined by potential for economic growth and industrial recovering.

A summing up of issues VET schools are facing leads to the following list:

- directors of schools are faced with responsibilities, for which they have not been trained;
- absence of adequate equipment;
- lack of appropriate school textbooks and auxiliary materials;
- lack of opportunities for practical training;
- difficulties in getting collaboration and involvement of enterprises and social partners in areas such as the local input in the school curriculum, the organisation and implementation of practical training.

In this context the following recommendations could be made:

- training of all school directors in the required management skills;
- training of all teaching staff of each VET school for the new tasks;
- identify new ways of solving the problem of lack of equipment;
- develop appropriate school textbooks;
- identify ways to make social partners become aware of the benefits resulting from their involvement in VET;
- provide an efficient methodological framework in order to continuously adapt school curricula to changes taking place in the labor market in various trades/specialisation;
- revise curricula to solve discrepancies between the level of vocational training, content and labor market demands.

Economic developments and instability of local enterprises, many of them undergoing restructuring, make it difficult to estimate training needs for a period longer than 3-4 years. Enterprises often need employees trained for specific skills at short notice. VET centres and schools have faced situations when enterprises contract private training providers, which offer training at short notice and with a limited duration of the training course.

In the delivery of training to adults on demand of enterprises, VET centres and schools have faced several obstacles. The future educational policies in the field of VET should take into account that:

- the amount of time it takes to have a curriculum accredited causes delay in the presentation of a training offer – instead, it should be considered to allow VET centers and schools to offer non-credit courses, as long as the centre and its customer reach an agreement on the content of the course;
- incoherent legislative regulations regarding the accreditation of training providers has led to an unfair competition for VET centres;

- the unclear legal status of VET school networks for the delivery of continuing training creates difficulties in the management of project activities.

School by ISCED level															
	0-2			3 general (theoretical high schools and vocational schools ¹)			3 vocational (technological high schools, vocational and apprenticeship schools)			4			5-7		
	Total	Public	Non-public	Total	Public	Non-public	Total	Public	Non-public	Total	Public	Non-public	Total	Public	Non-public
Number of schools															
1990/91	26040	26040	-	555	555	-	1350	1350	-	310	310	-	48	48	-
1994/95	26628	26617	11	607	605	2	1433	1407	26	596	570	26	...	63	...
1998/99	26555	26471	84	636	631	5	1479	1445	34	628	511	117	111	57	54
1999/00	25985	25915	70	689	678	11	748	729	19	90	33	57	121	58	63
Students (in thousands)															
1990/91	3482,4	3482,4	-	212,8	212,8	-	1148,7	1148,7	-	29,2	29,2	-	192,8	192,8	-
1994/95	3247,7	3247,0	0,7	363,1	362,5	0,6	683,2	670,7	12,5	45,3	41,9	3,5	369,7	255,2	114,5
1998/99	3181,7	3177,9	3,8	342,0	341,1	0,9	603,6	590,6	13,0	96,1	58,2	37,9	407,8	277,7	130,1
1999/00	3114,4	3111,0	3,5	393,7	392,1	1,6	522,9	513,2	9,7	94,7	55,5	39,2	452,6	322,1	130,5
Graduates (in thousands)															
1990/91	331,6	331,6	-	17,6	17,6	-	286,8	286,8	-	2,3	2,3	-	25,9	25,9	-
1994/95	305,0	305,0	-	83,8	83,6	0,2	167,1	163,3	3,8	17,2	15,8	1,4	53,2	47,8	5,4
1998/99	275,6	275,6	-	88,7	88,5	0,2	172,5	168,8	3,7	34,9	22,3	12,6	63,6	46,7	16,9
1999/00	283,7	283,7	-	99,6	99,2	0,4	144,8	141,4	3,4	39,2	22,2	17,0	67,9	49,1	18,8

Table 2.4 Structure of school system by type of school

III. Changing Higher Education

Higher education has undergone a process of massification in the last decade. The number of students has tripled, while the teaching staff has doubled. There was a strong increase in the number of universities, and an even stronger one in what concerns the number of departments and disciplines, supported by the emergence of private higher education. The increase in resources failed to keep pace with this expansion, what fuels concerns over the quality of the education process.

I shall look first at the relative advantage that more education brings to job searchers. Further I shall assess the response of the higher education system to the signals of the labor market, by analyzing the quantitative and qualitative changes in higher education enrollment. Finally, I shall look at the strains these developments has put on the resources of the system.

Impact of higher education

Data in tables 3.1 and 3.2 support the view that higher education graduates are more employable than less educated people. The share of higher education graduates is higher among all employees, compared with all unemployed. There is an exception however in the youngest age bracket where being a university graduate has a slight negative effect on

the employability chances. This underscores the difficulty fresh graduates face when looking for the first job, and supports the policy of the *integration allowance* – the employment subsidy for young people.

Table 3.1 Structure of employed population on age groups and education level in 1999

Education Level	T O T A L	Age Groups				
		15-24 years	25-34 years	35-49 years	50-64 years	65 years and more
A. TOTAL	100,0	100,0	100,0	100,0	100,0	100,0
Higher	8,5	2,3	10,2	11,3	9,1	1,0
Post-high school	4,5	2,8	3,8	6,0	6,0	0,5
High school	29,3	35,4	49,8	31,3	9,0	1,3
Vocational	21,6	23,4	25,7	28,5	12,4	2,2
Secondary	21,4	30,8	8,9	19,4	31,9	28,0
Primary or no formal education	14,7	5,3	1,6	3,5	31,6	67,0

Source: INSSE

Table 3.2 Number and structure of the unemployed (BIM) on education level in 1999

Education Level	Total		15-24 years	
	Number	%	Number	%
Total	789913	100,0	306931	100,0
University	29504	3,7	7631	2,5
Post-high school	21365	2,7	5566	1,9
High school	267610	33,9	122247	39,8
Vocational	234655	29,7	74654	24,3
10 year	55133	7,0	10243	3,3
Secondary	141441	17,9	69237	22,6
Primary (forms I-IV)	29902	3,8	11688	3,8
No formal education	10303	1,3	5665	1,8

Source: INSSE

System failures. Reform priorities

A number of recurrent failures are blamed for the lack of competitiveness of the Romanian higher education. They have been targeted by successive governments and the most important are summarized below, according to a 1999 official document of the Ministry of Education:

- the university system is centered on information stocking, and does not insist sufficiently on the production of knowledge or on the encouragement of creativity; it aims more at having the student memorize and reproduce information than use it analytically or creatively
- it does not permit sufficient room for individual training choices, and does not allow individual achievements to receive complete recognition,
- does not employ international standards of achievement

- it emphasizes general qualifications, even though educational priorities world-wide have moved on to postgraduate studies
- it is organized on a centralist basis, in which detailed decisions are only taken by high ranking managers
- it is too much inured to the pressures of corruption - in grades, competitions, job offers, and examinations.

Directions of reform

Starting from these identified failures, a number of reforms have been introduced, or are under consideration. First, the administration intended to improve the infrastructure of education and to promote the development of information technology use. Large investments were granted to universities from the central budget on a competitive basis, including the ability to match funds.

Second, a change in the 'character of education' was envisaged that should have resulted in a shift from the volume of information to the ability to make use of it to generate knowledge. This included new curricula, based on inter-disciplinarity and compliance with European standards, and their harmonization at the national level. A related priority was the development of post-graduate studies (advanced studies, masters, doctoral studies), supported by 'centers of excellence' from high performance universities. Moreover, a reform of the examination system to produce reliable nation-wide comparable evaluations is envisaged.

The role of scientific research is re-valued. The aim is to connect research with teaching by re-integrating it into universities and making it the backbone of the post-graduate studies. This will also support an increased status of the teaching profession, another goal of the reforms. However, the latter will require a substantial raise in income, correlated with performance payment.

Expansion

The quantitative increase is the most dramatic of the features of the new higher education system. Romania has started the 1990s with one of the lowest higher education attendance rates in Europe. The number of students has substantially increased after 1989 (see table 3.4). It is now three times larger when compared with 1989. This trend was supported by the establishment of new universities (table 3.3).

An important contribution comes here from the development of the higher education private sector. The upwards trend of the public sector has stalled from the mid 1990s. The number of public universities even went into decline. By contrast, the private sector registered sustained growth. The share of private sector students has stabilized around 25% of all students.

Overall, the rate of higher education attendance⁹ increased from 8% in 1989 to 22.2% in 1996 and 27.4% in 2001, when the total number of students has reached 533,200. Over the period the share of high school graduates moving to higher education increased from one third to two thirds.

The priorities seem now to be in reverse. The new leadership in the Ministry of Education appears more concerned by the ability of the system to cope with this stretch, and introduced a controversial policy for 2002, penalizing the universities that enroll fee-paying students above the schooling numbers approved by the ministry.

Table 3.3 Evolution of the number of higher education public institutions 1989 – 1999

Academic Year	1989/1990	1990/1991	1991/1992	1992/1993	1993/1994	1994/1995	1995/1996	1996/1997	1997/1998	1998/1999	1999/2000
Number	43	48	56	62	63	63	59	58	57	57	58
*including private education							95	102	106	111	121

Source: INSSE

Table 3.4 Evolution of number of students – including private education

Academic Year	Population in education ('000s)	Students		
		Number ('000s)	%	Evolution index (1989 = 1)
1989/1990	5545	165	3.0	-
1990/1991	5066	193	3.8	1.2
1991/1992	4805	215	4.5	1.3
1992/1993	4665	236	5.1	1.4
1993/1994	4569	361	7.9	2.2
1994/1995	4595	369	8.0	2.2
1995/1996	4703	336	7.1	2.0
1996/1997	4688	354	7.6	2.1
1997/1998	4643	360	7.8	2.2
1998/1999	4631	407	8.7	2.5
1999/2000	4578	452	9.87	2.7

Source: INSSE

Shifting emphasis

The picture is more complete if we look at the diversification in the specializations offered by the Romanian universities. This trend is expressed by data in table 3.5 that show that the number of departments has increased quicker than the number of universities.

Table 3.5 Evolution of the number of departments and colleges

Academic Year	1989/1990	1990/1991	1991/1992	1992/1993	1993/1994	1994/1995	1995/1996	1996/1997	1997/1998	1998/1999	1999/2000
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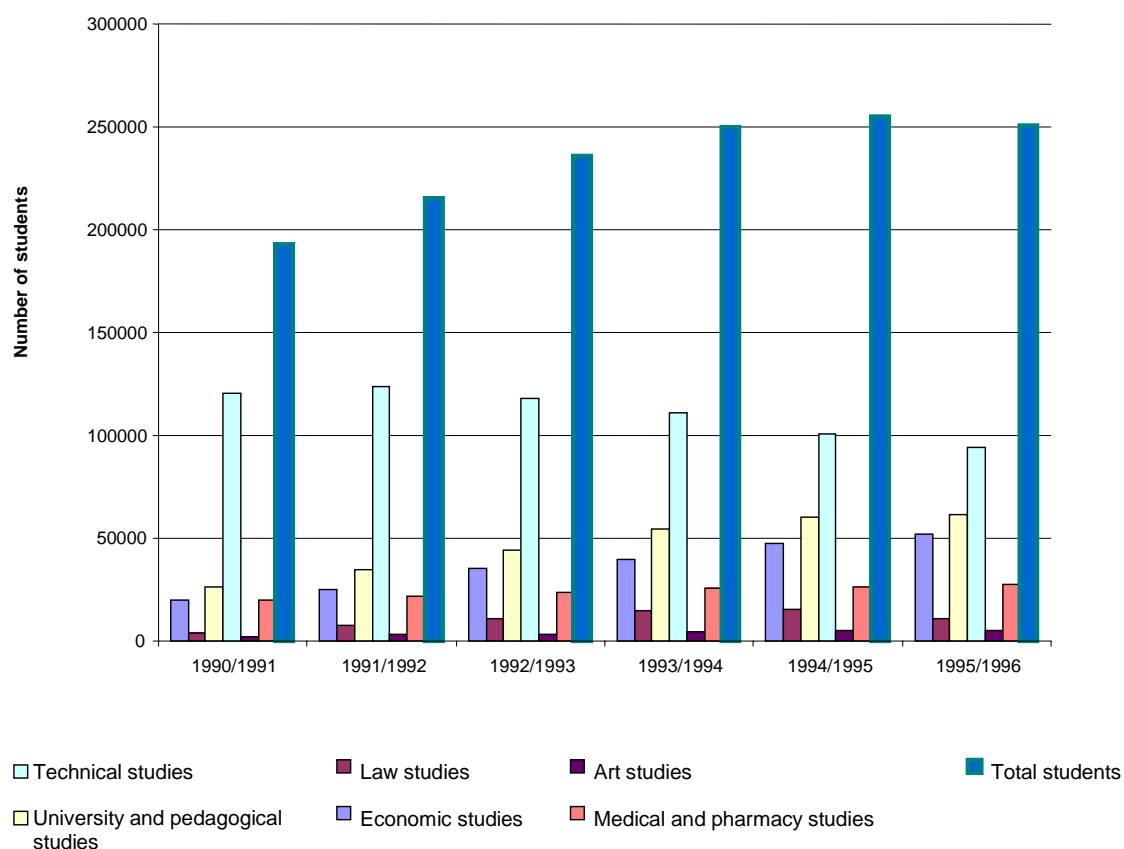
⁹ The rate of higher education attendance represents the proportion of students in the relevant age cohort in a specific year.

Number	101	186	257	261	262	262	318	324	324	361	411
* including private education							437	485	516	556	632

Source: INSSE

It is also interesting to analyze the dynamics among different specializations – presented in figures 1 and 2. With reference to state higher education, data show a decrease in the number of students enrolled in technical disciplines, in both absolute and relative terms. In contrast, the growth in student population is accounted for by the expansion of social sciences and humanities departments, which quadrupled their capacity.

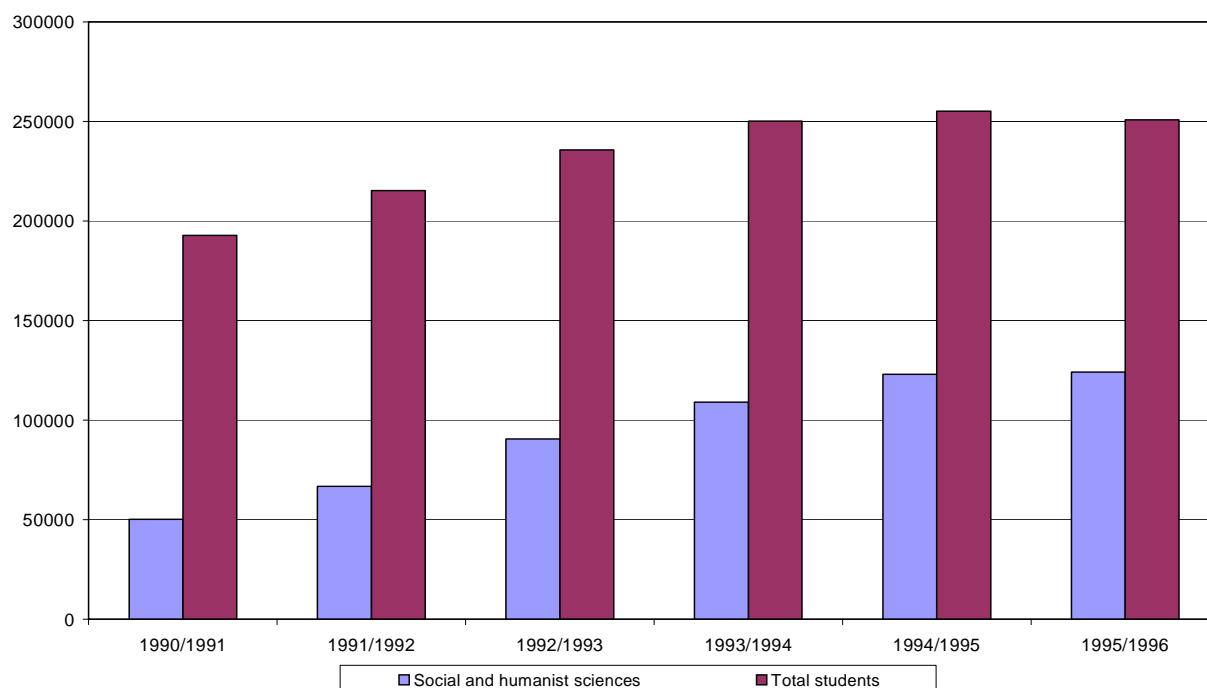
**Fig. 1. EVOLUTION OF STUDENT NUMBER BY FIELD OF STUDY
STATE UNIVERSITIES**



Note. Art studies include fine arts, music and theatre studies; university studies include humanist and hard sciences study

Source: MEN

**Fig. 2 EVOLUTION OF NUMBER OF STUDENTS IN SOCIAL SCIENCES
1990-1996**



This trend is even more marked in the private sector. Data presented in Table 3.6 show a percentage of 75.4% of the students enrolled in economic and law studies in the academic year 1995/1996.

Table 3.6 Student relative importance by field of study

Fields of study	90/91	91/92	92/93	93/94	94/95	95/96		
						State	Private	State and private
1. Economic studies	10,4	11,5	15,0	15,9	18,7	20,6	37,8	24,9
2. Law studies	2,1	3,5	4,6	5,9	6,1	4,4	37,6	12,8
3. University and pedagogical studies	13,6	16,0	18,8	21,7	23,5	24,4	18,1	22,8
4. Technical studies	62,5	57,5	50,1	44,4	39,5	37,6	0,1	28,1
5. Art studies	1,0	1,4	1,5	1,7	1,9	2,1	0,6	1,7
6. Medical and pharmacy studies	10,4	10,1	10,0	10,4	10,3	10,9	5,8	9,7
Social and humanist sciences	26,1	31,0	38,4	43,5	48,3	49,4	93,5	60,5
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0

Source: Mihailescu, 1996

Financing

The public spending on education increased after 1989. The shift that took place in public finances priorities in the early 1990s is illustrated by data in table 3.7. Even so, education's share continued to stay below the mandated 4% of GDP, as provided in the Law of Education, article 169, and is one of the lowest in Europe. Table 3.8 shows these

data for the similar period with table 3.7. This trend was maintained for the rest of the decade, the number for 2000 being 3.66% of GDP allocated to education expenditure. Moreover, the increase in percentage terms is not commensurate with the higher absolute amount (due to the GDP fall over the transition period).

When corroborated with the increased number of students, the situation looks bleaker. While the public sector spent 696 USD per student in 1990, this number decreased to only 307 USD in 1999: a 56% drop. While this situation is mitigated by the shift away from (expensive) technical higher education towards the (cheaper) humanities and social science studies, it remains worrisome.

Finally, an important tool for the re-structuring of higher education was the move to formula funding, based on the number of students enrolled. This forced departments to restructure and become more attractive to potential students. The higher per capita amount provided for master programs have contributed to their development.

Table 3.7 Evolution of Public Spending (% of total)

Year	1989	1990	1991	1992	1993	1994	1995	1996
Education	6,1	7,6	10,4	9,7	9,8	9,2	10,1	9,6
Health	7,3	7,9	9,5	8,3	8,7	8,6	8,1	7,6
Defense	10,8	7,1	10,4	8,8	6,5	7,1	6,2	5,2
Local government	7,1	4,2	2,9	3,0	3,5	3,8	3,9	3,0
Public Order	9,1	4,3	2,6	2,6	3,4	3,9	3,9	4,0

Source: Miroiu, 1998

Table 3.8 Education spending as GDP percentage

Year	1989	1990	1991	1992	1993	1994	1995	1996
%	2,2	2,8	3,6	3,6	3,2	3,1	3,4	3,5

Source: Miroiu, 1998

Teaching Staff

Table 3.9 illustrates the fact that the increased (in relative terms) resources have been directed mainly towards the increase in staff numbers. However, the average wage in the education sector is still the second lowest in the economy, surpassed only by the health sector.

Higher education has been the main beneficiary of the increase in staff numbers. It is worth mentioning though that teaching staff doubled over the period, while the student population tripled, what resulted in an overall deterioration of the student/professor ratio.

Table 3.9 The personnel increase (1989 = 100)

Period	Total	Pre-schooling	Primary	Secondary	High school	Higher
1996	+37	+25	+19	+24	+120	+101
2000	10.93	-3.75	+6.09	-1.17	+29.97	+93.70

Source: INSSE

Institutional restructuring

The post-1989 and current reforms aim to get the Romanian university system closer to the European model. As mentioned in the discussion about reform strategy, master programs were introduced, and the license examination and the doctoral program were modified. The credit system is also being introduced.

Scientific research was previously institutionally connected to the government bodies or the Romanian Academy. It is now re-coupled with university teaching through the grants offered by the National Council for University Scientific Research to research teams organized inside top university departments. These teams will also supervise master and doctoral programs.

Privatization

As mentioned above, the private sector is quickly developing, and is responsible for a big deal of the increase in the student population. Public higher education is more rigorous in student selection, while private universities have as a rule copied state universities and fail to offer an alternative. Scientific research in private universities is unsubstantial or non-existent. Private universities do not have their own academic staff, except for about 5 or 10% (at the 1996 level), employing mainly the academic staff of public universities or persons who are not qualified to teach. Wide discrepancies exist even among the private universities themselves: some private universities are comparable to the most competent public universities, while others can barely observe the national standards. These conflicting trends in the private sector were brought under spotlight by the decision in late 2001 by the Ministry of Education to withdraw the license from a number of private universities.

The meaningful feature of the private universities is that they have a lower status than the largely fee-free public universities (even if the quality of their education is increasing) and attract students from lower income status. This counter-intuitive state of fact is explained by the 'informal' privatization – the continuous increase of private-tuition (averaging at present around USD 600-700 per year), a main (tax-free) source for supplementing the income of teachers. The decrease in quality of public institutionalized teaching, and the extension of this informal privatization are curtailing the ability of less prepared students to pass the competitive entrance examinations of public universities. However, other research has found that private university students spend more money on living expenses than their colleagues from public universities.

Assessing the Reforms

In spite of the apparent convergence with the Western education system, the Romanian education, university system included, remained focused on the needs of the provider rather than of the student population and of the society in general. The disciplines, the number and geographic distribution of places and the funding are directed according to

the existing labor force, and many changes reflect the need for increased status of the teachers, and not those of the economy.

What can be said in its defense however is that the trends in economy are not very well defined, and the market mechanism that should translate the increased social demand of certain skills in the supply of the education system takes time to work its effects through. The development of post-graduate studies offers a glimpse of hope here: they are shorter, more flexible, and more responsive to the signals of the economy.

The higher education sector is undergoing a large expansion, answering the strong demand pressure and improving the Romanian statistics in comparison with both Western and neighboring countries. This means however that quality concerns are placed backstage. The most important arguments herewith are: i) poor organization of more sophisticated education programs (further studies, post-graduate studies), which still have an ambiguous status in Romania, and are mostly extensions of mass education programs, both in what concerns the content and structure; ii) the low average quality of license (graduation), PhD or research papers (e.g. lack of originality) and iii) an institutional hiatus between university and research.

Most of the shortcomings inherited from communist regime are still present. The Ministry of Education launched a large number of fancy ideas; it wants to connect the education system to the society / economy needs: to replace the mechanical reproduction of information with the generation of knowledge through new study programs and new teaching and testing methods, to re-unite teaching and research and to improve the training of the professors. However, little of this vision has reached the classrooms so far. We propose three factors responsible for this situation. First of all, the material resources are clearly insufficient. Then, the Ministry does not possess any longer the administrative leverage to impose changes upon the universities. From this perspective, the main legal innovation, university autonomy, did not bring the expected improvements. It may well be that autonomy requires more time to deliver the goods. However, with neither hierarchical subordination, nor effective competition for the public resources there is no pressure on universities to change, innovate and adopt best practices. As mentioned in the respective section, the new private sector has not been so far an adequate alternative to the public sector either. Finally, the array of task forces, and committees created have to move beyond institutional building and put more flesh on their proposals to make them really operational.

IV. Conclusion

So far, despite the various reforms initiated by the Ministry of Education, the school interaction with the social, cultural and economic environment was rather limited. Transforming the school into a community centre of educational resources, able to contribute to the development of human resources of the respective local community is still an ideal. Few concrete modalities of ensuring the adaptive function of education in a

context that involves multiple actors in the educational development, including vocational training were so far identified.

The students are facing problems that the school is not able to cope with. It is true that educational reform is ahead of economic reform, but it is exactly this lead together with the lack of support from the economic sector that have given rise to most of the current problems, i.e. the impossibility to generalize innovations, an incapacity to absorb external programs, and the minor contribution of human resources to the process of development. It is also true that education benefited from considerable external funds. Yet, in the absence of a coherent policy and adequate internal support, external contributions failed to yield the expected results. Reform is progressing, but many central and intermediate bodies are staying ahead of the grass roots level; consequently, there is a need to generate capacity building at this level. Moreover, many studies highlighted that key county institutions (inspectorates, teacher staff centers, universities, and schools) have difficulties in making reform practical while the community involvement and school-based approaches are lacking.

One more example could be offered by the education of the Roma minority, an important structure of the educational system. After many years in which this topic was absent from the official policy document, international organizations and Roma and non-Roma NGOs assisted the Ministry of Education to promote Roma identity through the educational process, by providing Roma children equal opportunity and schooling. In a first stage, important decisions for all minority groups in Romania were implemented: drawing up school textbooks dealing with the history and cultural tradition of the minority groups in Romania, ensuring proper representation among school leaders of specialists belonging to minority groups, the initiation of a program for the translation of school books from Romanian – promoting diversity and dialogue. Next followed specific measures addressing Roma students: new institutional structures were created, Roma language as mother tongue was introduced in schools, a syllabus was designed, and some curricular instruments were developed. At present, things are still far from the systematization stage since Roma language teachers are few and most of them lack proper qualifications; also, the initiatives within the new curriculum framework allowing schools to design and develop a 30 percent school-based curriculum fail to consider the specific values, traditions, and needs of this community. However, at present, things are still far from the systematization stage due to the fact that Roma language teachers are few and most of them lack proper qualifications. Moreover, the new curriculum framework allowing schools to design and develop a 30 percent school-based curriculum was reduced (in primary education) and often fails to consider the specific values, traditions, and needs of this community.

Once again, it should be stressed that the input of international assistance is decisive for the initiation and implementation of major reforms. However, in the case of institutionalization, the international assistance input is decreasing while the role of all levels of governance (central, regional, and local) has become crucial. It is quite possible for these tendencies to be encountered in other transition countries as well. In the '90s,

these countries made significant efforts to invest in education, but with modest effects from the point of view of sustainable development.

Until 10 years ago schools had close relations with local state companies. In the context of a command driven economy schools had to respond to the specific needs of the factory, which in ensured places for practical training of the students and recruited their workers from the subordinated school.

In the new socio-economic context of Romania, with its focus on the private sector and the restructuring of the entire economy, a new relation between the VET system and the labour market is developing. It was experienced that VET provision had to meet the demands of the labour market and that VET schools could play an active role in the regeneration of their communities by taking care of human resources development. This has become a major goal of human resources development strategies in Romania

The reform is necessary because the current education system is no longer compatible with the society taking shape in Romania, based on market economy and democratic participation. The present system emphasizes too much the transfer of information, instead of understanding, memory instead of creative thinking, separation instead of subject integration, collective learning tracks, instead of individual ones, centralized decision-making instead of institutional or individual, general rather than specialized training, does not adhere to international performance standards, is based on poor competition (on teaching jobs), and lacks partnerships.

Ad-hoc re-grouping of resources and institutions usually takes place to allow participation in development programs financed by PHARE, Open Society, World Bank, and/or the Government. The system is extremely dynamic as it succeeds, on the one hand, to encourage local initiative and, on the other hand, it succeeds in bringing together the most diverse of partners in a joint project. Therefore, the link with the economic environment is possible. While the system of education depends on economy for its financing, the economy needs school graduates whose attitudes and abilities should favor a higher labor productivity and managerial competency. The link between economy and education is definitely acknowledged by the Romanian authorities and has been included in the reform of education.

These objectives could be reached through public programs monitored by the Ministry of Education and Research, financed from public sources and state-guaranteed loans (e.g., the World Bank). Currently, as accession processes advance, the main support for these programs is no longer offered by the World Bank but by the European Union. Complementary to these top-down and state-controlled programs, there are numerous punctual projects initiated bottom-up by schools and the civil society. The projects - focused mainly on aspects like alternative education, education for democratic citizenship, school-community partnership, non-formal learning, youth participation, education for Roma/gypsy minority, etc. - could represent an important input to the current reform. Therefore, continuation should have been ensured not only by co-financing programs by the Romanian counterpart, from the very moment the programs

are launched (at minimum 30 percent of the total cost) but also by timely setting up of follow-up structures, to take over activities and spread them throughout the educational system.

Failing to include these directions on the current agenda, the significant steps forward in the reform process, as described in this study, could be ultimately ineffective. And the evolution toward a systemic reform, set as the major objective of the reform process in education, is impossible to attain unless the lessons taught by failure are learnt.