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## The Implications of Demographic Pressure on the Occupancy Rate on the Labor Market and of the Pension System

Oana Claudia Ionescu<sup>a</sup>

<sup>a</sup> Assistant Ph.D., Titu Maiorescu University Bucharest, Romania, e-mail: [oanaclaudia.ionescu@gmail.com](mailto:oanaclaudia.ionescu@gmail.com)

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### ABSTRACT

Social welfare for the elderly is increasingly a challenge to European countries, a situation that is mainly due to demographic changes of recent years and the many difficulties encountered by the current pension systems. The EU's population faces an intense aging process, due to considerable progress of the society and resulted in a substantially reduced mortality and a higher life expectancy. Romania also faces a similar situation, especially as the first wave of the so-called "baby boom" generation is already close to retirement. This makes the "dependency rate", which expresses the ratio between the working populations, young and elderly people follow the growth trend of the recent years, especially since the birth rate declines increasingly more.

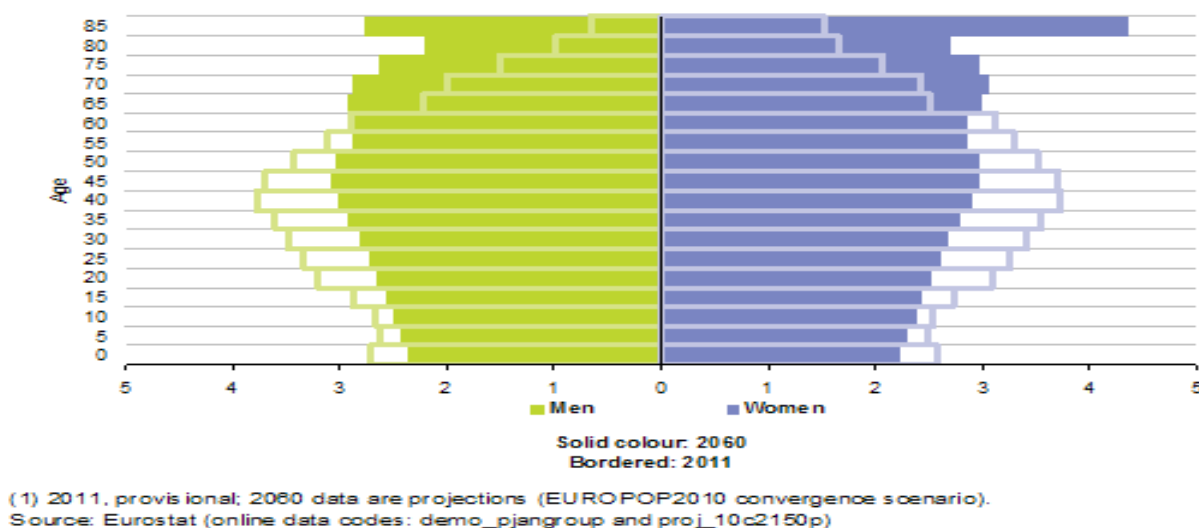
### Introduction

Demographic aging is, in the current context, a real challenge for the labor market, for the health system and quality of life after the retirement age. European Union average age is currently 39.8 years, but according to Eurostat estimates, by 2060 this rate will reach 47.2 years. In this perspective, for the share of population aged over 65 is expected an increase by about 2 mil. people / year. The economic and social consequences of the slow, but continuous aging process of the population are also felt in Romania and they are the main concern of financiers for the next period, raising many questions on the labor market and the pension system. Promoting the concept according to which "aging" is not the same as "being dependent on others" takes on a special connotation, thus "active aging" is not only a reality, but also a necessity of the present times. Analysis of the current labor market highlights the need of reforming it by identifying some measures and courses of action to be taken towards the near future.

## The current context of the change in the population structure by age groups

In the developed countries of the world, fertility rates around 2.10 % of live births / woman is considered to be the replacement rate, i.e. the level at which the population would remain stationary on long term. In recent decades, the average fertility rate of the EU countries was far below the replacement rate, being in 2011 about 1.57 % and the highest rates were recorded in Ireland (2.05 %), France (2, 01 %), UK (1.96%), Sweden (1.90 %) and the lowest in Hungary (1.23 %). On the other hand, the infant mortality rate has been declining in recent decades as a result of improved access to healthcare and living standards, increasing immunization against diseases, etc. being in the EU of about 3.9 deaths / thousand newborns alive in 2011, the highest values being recorded in Romania and Bulgaria, about 11.3 deaths / thousand newborns alive. Also, life expectancy at birth in the past 50 years has increased by about 10 years, being 74.0 years for men ( 2011) in Eastern Europe, including Romania and 80.0 years in countries such as Italy, UK, Spain, Germany and France, the highest male life expectancy being found in the Comunidad Ford de Navarra, i.e. 81.1 years. In women, life expectancy was about 80.0 years in 2011, the lowest value being recorded in the Eastern European countries such as Bulgaria, Hungary and Romania. The highest value was recorded in the Comunidad de Madrid and was 86.7 years. The smallest differences by gender were recorded in the Netherlands, Cyprus and Sweden. So, the age pyramid will undergo significant changes in the increase of aged population.

**Figure 1:** EU population pyramid for 2011-2060 (% of total population)



Another critical demographic issue is the significant increase of the demographic aging rate, due to increase in the life expectancy, combined with low fertility rates and retiring of the

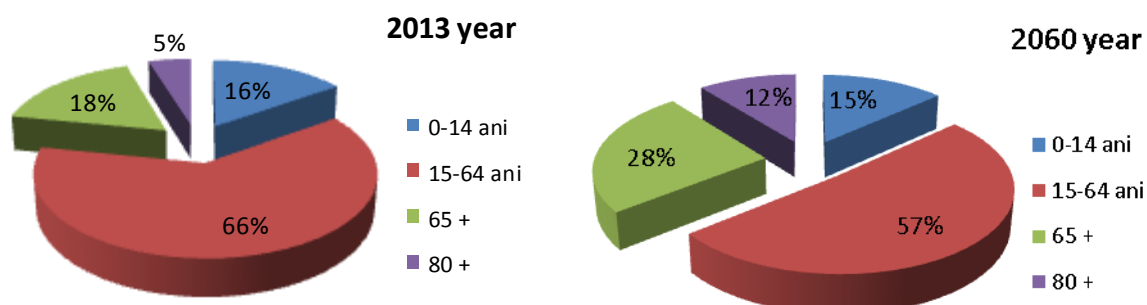
"baby-boom" generation. According to demographic forecasts of the European Commission<sup>1</sup>, the age structure of the population will bear significant changes. Thus, the population aged over 65, who, in 2013 had a share of 18% of the total population will increase by about 59.1% between 2013-2060, when the share of this age group tend to reach 28% of the total population. The largest increase will be among people aged over 80, whose share in the total population was 5% in 2013 and will reach 12% in 2060, representing an increase of 159.7%. Instead, active and young population will witness a decrease by 11.6% and 0.8% during this period, while the share estimated in total of population will be 57%, as well as 12% by 2060, compared to the initial share of 66% and 16%.

**Figure 2:** Percentage change of the share in the total of population on major age groups, in the intervals. (2013-2020; 2020-2060; 2013-2060 (UE 28 )

Grupe de vârstă	2013-2020		2020-2060		2013-2060	
	UE 28	RO	UE 28	RO	UE 28	RO
0-14 ani	+0,8	-1,9	-1,7	-13,4	-0,8	-15
15-64 ani	-2,1	-5,2	-9,7	-24,5	-11,6	-28,5
65+	+13	+13,4	+40,8	+35,5	+59,1	+53,6
80+	+16,6	+18,3	+104,5	+119,5	+138,4	+159,7

Source: Commission services based on Eurostat EUROPOP 2013 data (own graphical representation)

**Figure 3:** EU population structure by age groups (% of total population) in the 2013; 2060 years

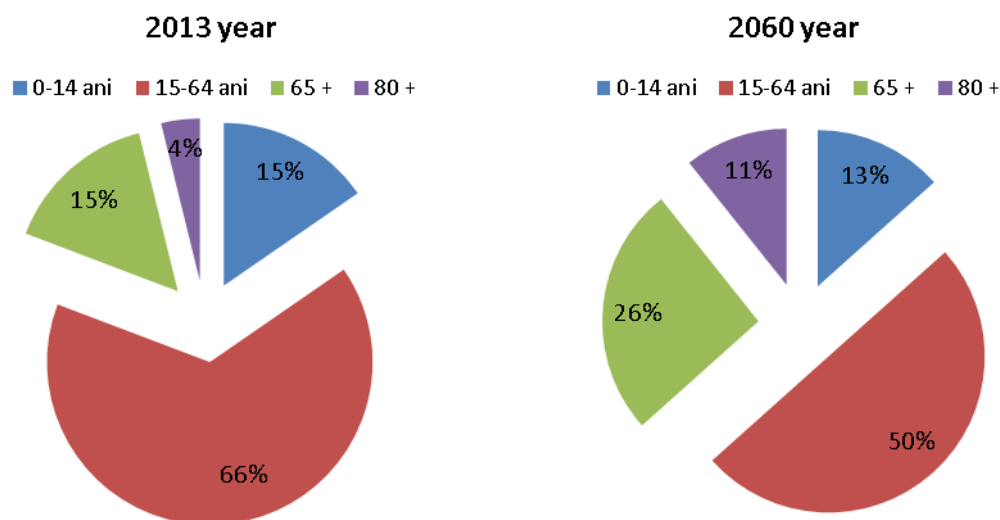


Source: Commission services based, Eurostat EUROPOP2013 (own graphical representation)

A similar situation can be also found in Romania, with significant decreases of the active population in total population, from 68 % in 2013 to 56% in 2060, while higher increases will be recorded for those aged + 65 (from 16 % in 2013 to 28% in 2060) and + 80 years (from 4 % in 2013 to 12% in 2060). If this trend will be followed, the share of population over 80 years will almost equalize the youth and the percentage difference is only 2%.

<sup>1</sup> \*\*\* European Commission, "The 2015 Ageing Report", Underlying Assumptions and Projection Methodologies, European Economy 8/2014, Economic and Financial Affairs, Brussels, <http://europa.eu>, march 2015

**Figure 4:** Share of population on age groups (% of total population) in Romania (2013, 2060)



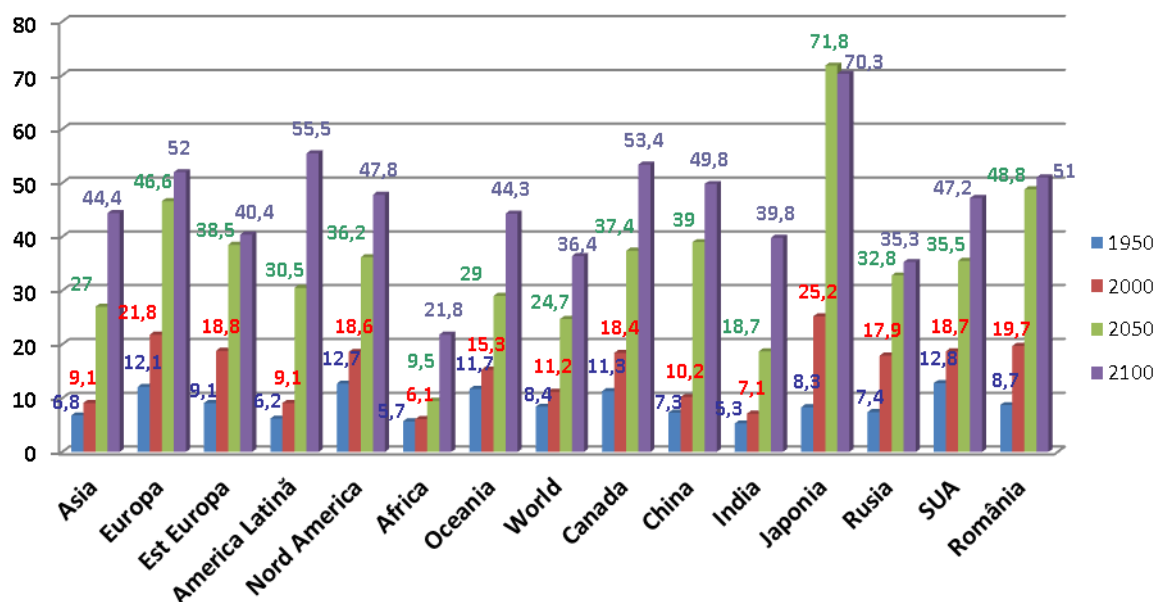
Source: Commission services based on Eurostat EUROPOP2013 data (own graphical representation)

### Changing the dependency rate worldwide and the need to encourage participation of old workers in the labor market

In view of the 2050s<sup>2</sup>, Europe will have a population with a level of aging among the highest in the world and the **dependency rate**, expressed as the ratio of population over 65 years and active population will experience a growth trend and will rank 46.6%, lower than in Japan (71.8%), but much higher compared with countries in Africa (9.5%), Oceania (24.7%), Asia (27%), Latin America (30.5%) and the US (35.5%). The expected level of this indicator will increase steadily, reaching by the year 2100 the level of 55.5% in Latin America and 52% in Europe compared to Africa (21.8%). Across the world, the estimated value of this indicator will grow from 8.4% in 1950 and 11% in 2000 to 24.7% in 2050 and 36.4% in 2100. Forecasts place Europe over the estimated global media and as regards Romania, the growth will be outstanding between 2010 (19.7%) - in 2050 (48.8%), placing it over the expected average European levels (46.6%) and Eastern Europe (38.5%).

<sup>2</sup> \*\*\*United Nations, "World Population Prospects. The 2012 Revision", Volume II: Demographic Profiles, Economic & Social Affairs, New York, 2013, <http://esa.un.org>, April 2015

**Figure 5:** Estimating the dependency rate of the elderly population worldwide (%) (1950, 2000, 2050, 2100)



Source: UN World Population Prospects: The 2012 Revision (own graphical representation)

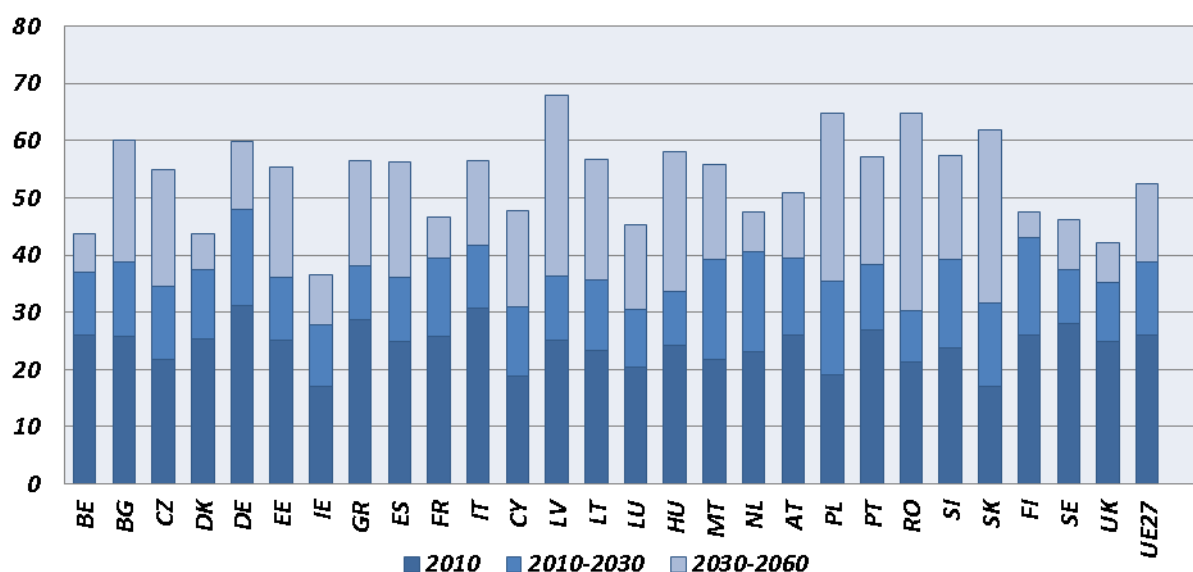
According to estimates<sup>3</sup>, the elderly dependency rate in the European Union will double between 2010-2060, from 26% in 2010 to 52.5% during 2060's. The demographic changes become even more dramatic within certain countries, i.e. the former communist countries such as Poland, Latvia and Romania, along with Slovakia and Bulgaria, which will record levels of dependency rates of elderly between 60% and 70%, with the highest increases (between 20% and 30%) between 2030-2060. The lowest values will be recorded in countries such as Ireland (36.5%), UK (42.1%), Denmark (43.7%), Luxembourg (45.2%) and France (46.6), values below the European average estimated for 2060 (52.5%) and will be due mainly to decreases that are expected to be recorded between 2030-2060. These results are the effect of the high level of implementation of reforms in the pension system, beyond the level of economic and social development, which will also transpose into a standard of living, health and education higher to the other countries.

In Romania, the highest growths in the dependency rates will occur between 2030-2060 (30.3%), compared with 9% growth estimated for the period 2010-2030.

<sup>3</sup> \*\*\*European Commission, "The 2012 Ageing Report: Economic and budgetary projections for the 27 EU Member States (2010-2060)", Joint Report prepared by the European Commission (DG ECFIN) and the Economic Policy Committee (AWG), European Economy 2|2012, ISBN 978-92-79-22850-6, page 380-470



**Figure 6:** Estimated evolution of the dependency rate of the elderly ( 65+ / 15-64 years) at European level between 2010-2060 (%)



Source: Commission services based on Eurostat EUROPOP2010 data (own graphical representation)

In those circumstances, according to the table below, the dependency ratio will increase significantly in the future, from a value of 1 : 3.57 in 2010 to 1: 1.57 (retirees / active people ) ahead of 2060. The most favorable situation is found in Great Britain, where the dependency ratio will rise from 1: 3.57 in 2010 to 1: 2.12 in 2060, while in Romania, this ratio was 1: 4.34 in 2010 and will reach the value of 1: 1.42 in 2060. Thus, the economic dependency rate of the elderly highlights the combined effect of aging on the one hand and the evolution of the labor market, on the other hand.

**Table 1:** Predictions on the ratio between the number of retirees (+65 years old) and active population (20-64 years old)(%)

Țară/an	2010	2020	2030	2040	2050	2060
Germania	34	39	52	61	63	65
Franta	28	37	44	49	51	52
Italia	33	38	45	56	61	62
Marea Britanie	28	33	39	43	44	47
Suedia	31	37	42	45	46	51
Danemarca	28	35	41	47	46	48
România	23	28	33	45	59	70
<b>UE15</b>	<b>28</b>	<b>34</b>	<b>42</b>	<b>50</b>	<b>55</b>	<b>58</b>

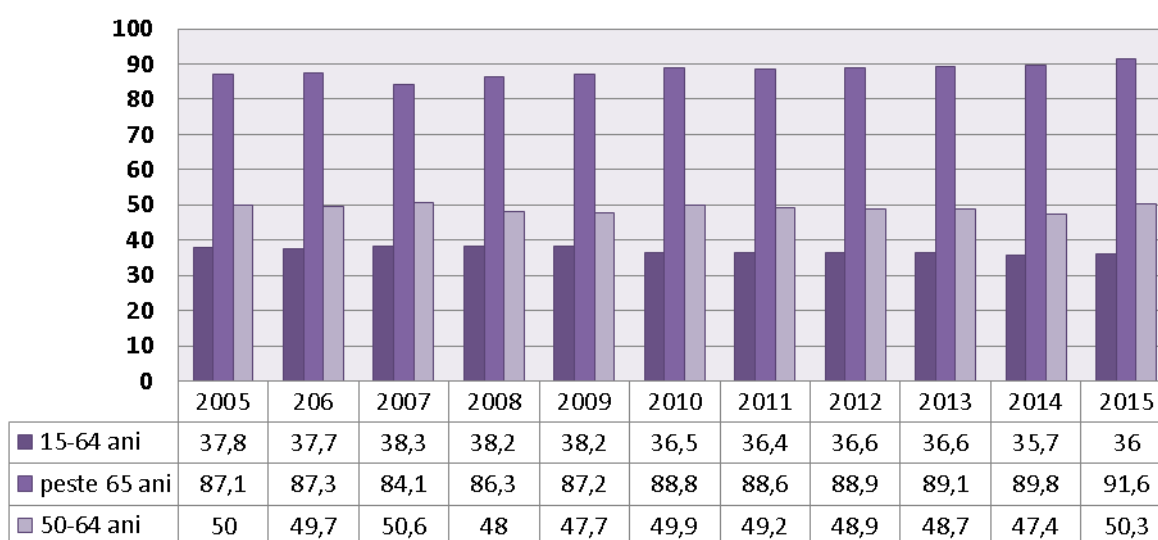
Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2010), EPC (AWG) 2012

At EU level, by 2060, it is estimated an increase in costs caused by aging of population of 4.75 % of GDP, of which the most significant increases will be registered in public pension expenses (2.5 %) and health services expenses (1.5 %). In such circumstances, it is essential to reach the objective of employment of 75 % among population aged between 20 and 64 years, according to the "Europe 2020 strategy" and going on the lines suggested by

the *Employment Guidelines*<sup>4</sup>, on increasing of the participation on the labor market of young people, older workers, of low-skilled workers and migrants.

Providing some viable alternatives on the labor market to people aged over 50 years, is a priority for Romania, given that the share of inactive population in this age group has increased in recent years amid early retirement carried out under economic downturn. This can be also seen from the chart below, which highlights a slight decrease in the share of inactive population in the age category of 15-64 years between 2010-2015 and a stabilization around the value of 36 %, parallel with the share of inactive population in the age groups 50-64 years and + 65 years, whose value will increase significantly from 49.9 % to 50.3 %, as well as from 88.8 % to 91.6 %.

**Figure 7:** Inactive population in Romania, by age group, between 2005-2015, the first quarter (% of total population)



Source: data base Eurostat, European Commission, <http://appsso.eurostat.ec.europa.eu> (own graphical representation)

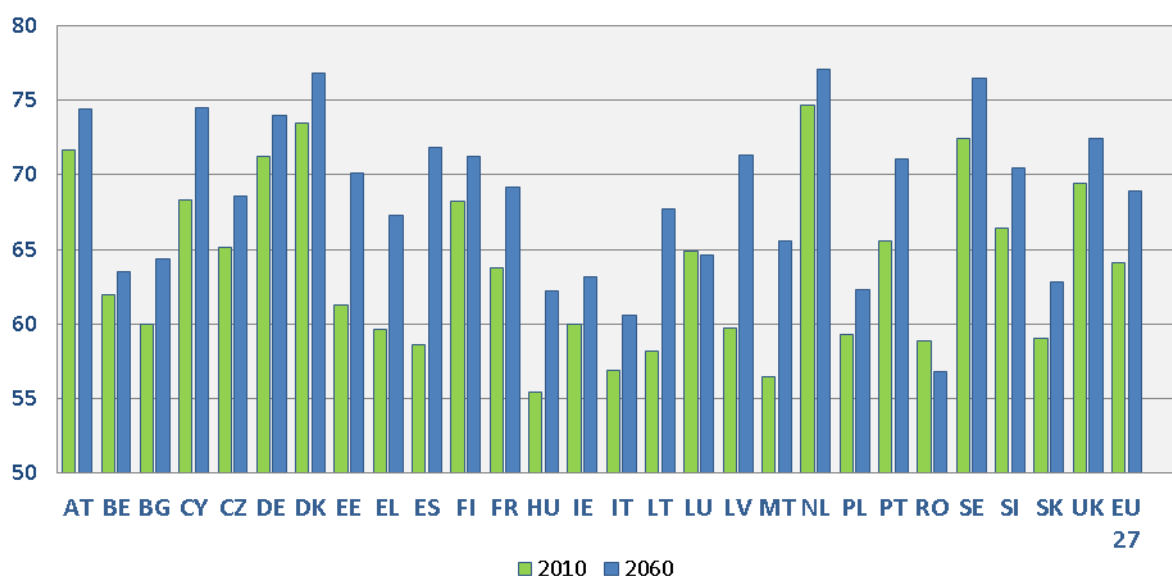
Although with aging, health is getting worse, EU countries must propose promoting some measures and regulations that allow us to live longer, without being dependent on someone else. An endeavor in this respect is to change the perception according to which the elderly "represent a burden on society" and the highlights of potential and skills that these people have, and not the shortcomings or impediments. Thus, the European Union aims to promote participation in the social life of the elderly, encouraging the authorities to create a favorable framework, which highlight the role of the elderly in society by ensuring better conditions for their health, an autonomous way of life and an environment "adapted" to people with health problems and disabilities.

<sup>4</sup> \*\*\*Council Decision 2010/707/EU of 21 October 2010 on guidelines for the employment policies of the Member States (Official Journal L of 24 November 2010), [www.europa.eu](http://www.europa.eu)

## Conclusions on the current trends in employment

Reviewing the forecasts of the **employment rate**, we find a positive growth trend, which however remains below the Economic Union objectives in most of the Member States, the EU estimated average being 68.9 %. The Netherlands will hold the largest share of the employed population, which will reach a level of 77.1 % in 2060, a consequence of the fact that it starts from a very good present situation of this indicator. Also, Denmark, Sweden and Austria will witness a significant increase in the employment rate, reaching values of 76.8 %, 76.5 % and 74.4 %, while in Romania it will decrease from 58.9 % in 2010 to 56.8% in 2060.

**Figure 8:** Employment rate (15-64 years) at the EU level for years 2010, 2060 (%)



Source: European Commission, Eurostat 2010- 2012 Ageing Report (own representation)

In **conclusion**, the European labor market will be significantly influenced by the intense decrease in the working population, so neither the positive contribution of migration, nor increasing in the participation on the labor market of youth and elderly will be able to offset the effects of demography. As regards employment in the current demographic context, increasing in life expectancy and population aging degree, Europe must focus its efforts to improve the occupational prospects of elderly. In this way it will be able to achieve a balanced budget, especially in the pension system, the most affected by changes occurred in the labor market. Providing viable alternatives on the labor market to people aged over 50 years, is a priority for Romania, while the share of inactive population in this age group has increased in recent years amid early retirement carried out under economic downturn. Therefore, demographic change can be managed through a positive approach, focusing on the potential of elderly groups.

The aging of the world population has an impact that will be felt on the labor market by reducing labor supply and labor productivity. To this, out-of-date institutional systems

currently exist in Europe are added, most of welfare protection systems, in this case the pension system, operating primarily based on distribution (PAYG), this generating major imbalances between generations. Typical examples in this respect are the public pension systems in Germany, Netherlands, UK, France and Belgium. Meanwhile, the reverse system, the one based on capitalization, operates on the principle of investment of current contributions to finance future pension costs, based on capital invested plus related interests. An example of this is represented by the British and Dutch pension funds organized on professional criteria. Therefore, public pension systems in most European countries, in their current form operates after the Second World War, have now reached maturity and will not be sustainable for the medium and long term, according to estimates provided by OECD experts.

The main **actions** drawn from this context, refers to:

- the need to increase the support of the classic pension system through complementary schemes based on capitalization, which will limit the demographic impact on the value of the pension ;
- improving the collection rate of contributions by implementing measures aimed at promoting an adequate financial discipline;
- increasing employment rate by extending working lives, as a result of integration and stimulation of disadvantaged age groups and creating new jobs by attracting private sector investment .

Consequently, further reform of pension systems, accountability of the masses with regard to financial planning during retirement, in conjunction with promoting active will represent a priority for ensuring the sustainability of the pension system, efficient exploitation of the potential of the labor market and ensuring a balanced budget, representing very important objectives for most governments of the European countries and more.

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## Evaluation of the Quality of Education and Implication of Romanian Youth of Unmet Training in the Actual Global Context of Technical and It Discoveries<sup>5</sup>

Paraschiva Grigorie<sup>a</sup>, Ilie Alexandru Grigorie<sup>b</sup>, Adrian Ghencea<sup>c</sup>

<sup>a</sup> Teacher, Ph.D. candidate, Viilor Economic College and Orthodox Theological Seminary, Bucharest, Romania, e-mail: [paraschivagrigorie@yahoo.com](mailto:paraschivagrigorie@yahoo.com)

<sup>b</sup> Student, Ștefan Odobleja Theoretical High School Bucharest, Romania

<sup>c</sup> Specialist IT, Bucharest, Romania, e-mail: [aghencea@yahoo.com](mailto:aghencea@yahoo.com)

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### ABSTRACT

This paper is intended to emphasize the possibilities to grow up the Romanian economy within teenagers in spite of all problems related to education, poverty, economic crisis, unemployment, migration, unmet training etc.

On the one hand, it identifies and proposes the approach of a new research regarding the decrease of the following phenomena: the migration of young Romanian people and youth unemployment.

On the other hand, the paper reflects the role of vocational training development during the current economic crisis. We investigate how the Romanian labor market and the educational system may contribute to the decrease of the option for emigration as the only saving opportunity for more and more young people. The Romanian economic crisis is a decisive factor that determines young people either to migrate from Romania or to find new solutions in research and development area. The objectives refer to the assessment of the tendencies of Romanian youth migration and reflect the analysis of the impact on the educational system. The results of the research draw attention to the potential loss of our knowledge society.

The paper highlights the new trend influencing the youth labor market and the changes in the interactions between the educational services market and the labor market.

### INTRODUCTION [20, 21, 22, 23, 27, 29, 30]

#### Objectives:

1. An appreciation of the role of vocational Romanian school as a driver of technological change in economic development, past, present and future;
2. Awareness of key models of the education, research and innovation process, their strengths and weaknesses and their implication on the labor market of young people;

<sup>5</sup> This work was partially supported by the strategic grant POSDRU/159/1.5/S/137070 (2014) of the Ministry of National Education, Romania, co-financed by the European Social Fund – Investing in People, within the Sectoral Operational Programme Human Resources Development 2007-2013.

3. An appreciation of policy and regulatory educational challenges for youth in relation to technological change and innovation

#### **Prior work [27]**

From the perspective of unmet training, we examined the new trend influencing the youth labor market and the changes in the interactions between the educational services market and the labor market.

We also discussed the main strategic choices available for the Romanian education in order to successfully integrate in the European area of education and research.

Education and training are crucial to economic and social change. The flexibility and security needed to achieve more and better jobs depend on ensuring that all citizens acquire key competences and update their skills throughout their lives.

#### **Design/ Methodology [27]**

This report presents a study of past, present and future changes to education and training of youth, versus low Romanian standard of life.

#### **Results**

There are the follow results:

- to contribute to this vision-building process on ways of addressing emerging competence needs,
- to contribute to the development of imaginative visions and scenarios of the youth's future of learning and working in order to support priority setting for education, training and skilling policies;
- to decrease young people's migration and unemployment.

#### **Implications:**

New technology in education and labor market; tools and services enhancing learning; open education and resources; assessment, accreditation and qualifications; globalization of education; roles of institutions; individual and profession-driven education; life-long learning; formal education goes informal; individual and social nature of learning, the epistemological and ontological bases of pedagogical methods.

## **1. INTRODUCTION [20, 21, 22, 23, 27, 29, 30]**

*The paradox of the twenty-first century may be that our ability to use technology to our advantage is going to be linked to the quality of our human social networks. The quality of our social networks between students and all actors involved in educational process depends on how well we use technological changes and quality assurance in education and work by improving the communications between them. We are optimistic that is entirely possible to improve our futures in this way [20].*

Scenario planning is the application of visual dialogue. It is a way to structure and facilitate strategic thinking in educational teams and multi-organizational projects where there is increasing uncertainty in the educational and business environment [20]. The beauty of scenario thinking is that it allows us to tell each other stories about how the world might study and work. The key element is not whether we are right or wrong, but rather, that we dig deep down to understand that it is our assumptions and perceptions that underpin the imaginations in each scenario, and evaluate their plausibility. Scenarios are not linear or mechanistic; they are displays of exponential connections.

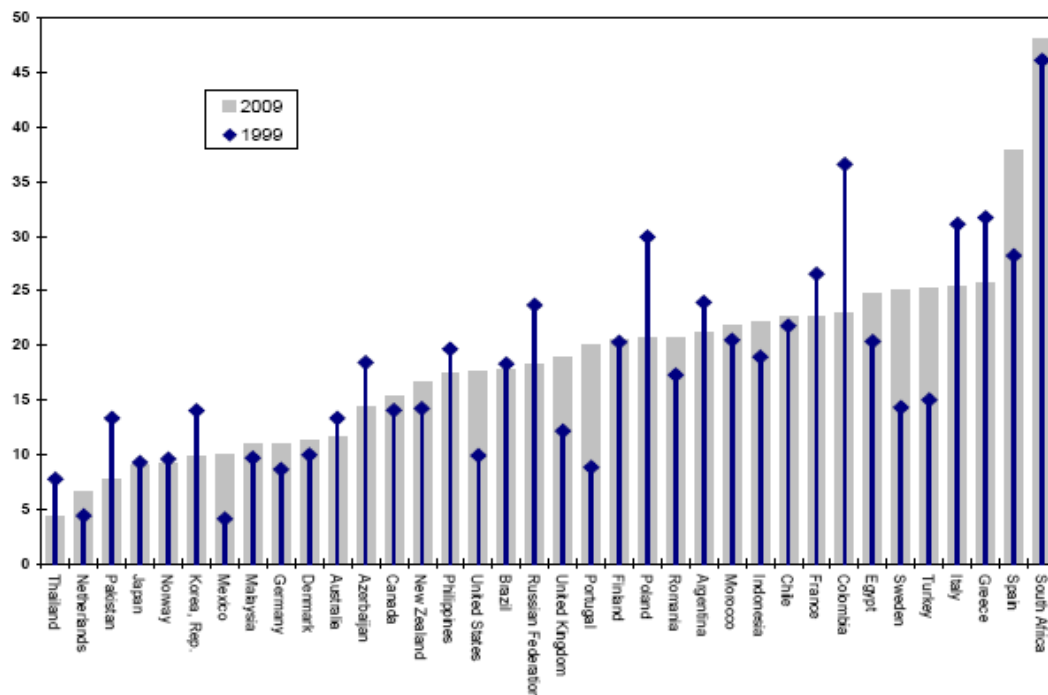
The process of building scenarios starts with looking for driving forces, forces that influence the outcome of events. Driving forces are the elements that move the plot of a scenario, and determine the story's outcome. The problem is that they may seem quite obvious to one person but hidden to another, and without driving forces, there is no way to begin thinking through a scenario [20].

When we approached this subject about economic and psychological implications of Romanian youth of unmet training in the actual global context we started from the researches in this field, and we made the imaginative visions and scenarios of the youth's future of learning and working in order to support priority setting for education, training and skilling policies.

According to follows: Petronela Daniela Feraru's study of the PhD. (Thesis *Religion and Migration in Contemporary Romania. Case Study: Romanians Living Italy* [19]), the reports of United Nation [23], UE [24], and own studies [20], [21], [22] we establish the following aspects.

Explaining differences in youths' transition into employment needs to take into account, first, demographic developments and economic growth, or decrease, and second, the interplay

between these dynamics and long-standing institutional patterns, in particular regulatory provisions influencing the supply of flexible or permanent jobs as well as education and training policies. Both general education at schools as well as different forms of vocational training, either at schools or on the job or combining both elements in a 'dual apprenticeship' are necessary preconditions for the employability and productivity of young people. Vocational training is a crucial element as it can link young people's competences with employers' needs. Bringing vocational training closer to the needs of dynamically changing and evolving labor markets and economies can help young people move into more productive and sustainable jobs. Taking the perspective of young people, a 'good job' is a job that initiates a long-term investment in and attachment to the labor market. A job combined with formal training is by definition a good job. This paper is about the creation of good jobs for the young [20, 21, 22, 23, 29, 30].



**Figure 1.1:** Youth Unemployment rates, 1999 and 2009, in %, Source: World Bank [23]

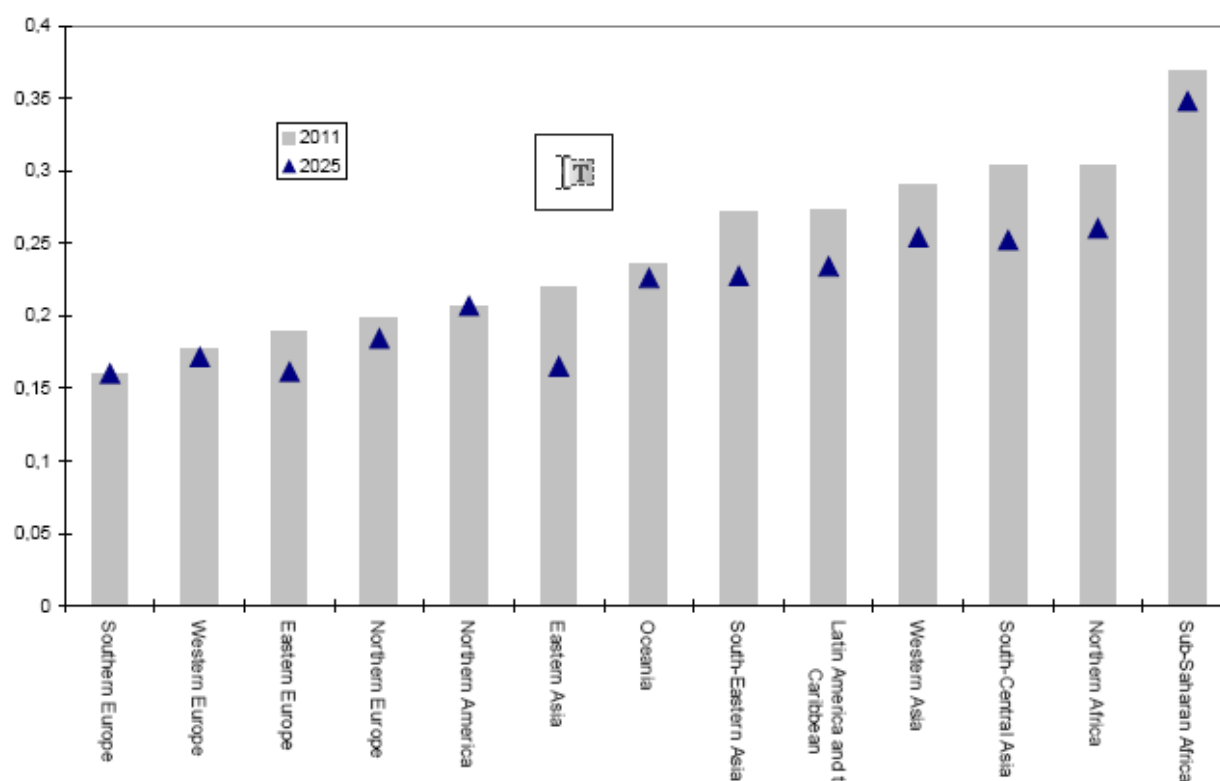
To explain differences in the integration of young people across time and space one has to take into account the interaction of economic and demographic factors on the one hand and labor market institutions on the other:

1. the demographic structure, in particular the size of younger cohorts, determining young people's labor supply,
2. labor demand patterns given by the structure of the economy and economic growth,
3. labor market flexibility as determined by minimum wages and employment protection for permanent and temporary jobs,
4. education and training preparing young people for the world of work, distinguishing between general education, vocational training and learning on-the-job,
5. active labor market policy programs designed to further the labor market attachment of disadvantaged youths, in particular those who failed to enter and complete general education and vocational training.

All these factors interact with each other and provide particular patterns of youth employment or unemployment in different countries or world regions.

Regarding the evidence on demographic factors first, empirical research has shown that demographic factors, in particular cohort size, and economic demand matter in determining youth employment (Korenman and Neumark 2000; Blanchflower and Freeman 2000; Garcia and Fares 2008c). Figure 1.2 shows that there is a large variation in the demographic composition of major world regions. Young cohorts at the age of entering the labor market are particularly large in 13 Northern and Sub-Saharan Africa while demographic ageing is a major phenomenon in most high-income countries in Europe, North America and Eastern Asia [7, 20, 21, 22, 23, 29, 30].





**Figure 1.2:** Share of 15-24 in all 15-64 year olds  
Source: UN World Population Prospects 2010 Revision [23]

Both growth and demographic features cannot explain cross-country and intertemporal variation of youths' integration into employment alone. They interact with labor market institutions in determining youth unemployment or employment and the easiness of a transition from school to work. Institutional framework conditions play a role in structuring the transition of young people into employment, in particular minimum wages and employment protection (Gomez-Salvador and Leiner-Killinger 2008), but also education and training as well as active labor market policy schemes[7,20,21,22,23,29,30].

Turning to the role of minimum wages first, there is quite consistent evidence that high minimum wages tend to have negative effects on young labor market entrants – this is why young workers are often covered by a specific, somewhat lower minimum wage (Neumark and Wascher 2007; Abowd et al. 2000; Gomez-Salvador and Leiner-Killinger 2008).

This report provides an overview of the labor market situation of young people in major world regions covering developed countries as well as the developing world. The paper highlights the role of demographic factors, economic growth and labor market institutions in explaining young people's transition into work. A major focus lies on vocational training and education as the paper assesses the contribution of different types of vocational training on subsequent labor market outcomes. It argues in favor of vocational training systems combining work experience and general education and gives some policy recommendations to implement training systems adapted to a country's economic and institutional context.

## **2. FORCES FOR CHANGE OF LABOUR MARKET AND EDUCATIONAL SYSTEM [25.27] [7, 20, 21, 22, 23, 25, 27, 29, 30]**

### **Learning Skills [25]**

Learning become outdated very soon because new knowledge comes every day and we have to learn more and more. The process of learning goes over the whole life time. We need not only learning but also the learning skills. Education is not the learning process that is completed in one time. it is a complete process. So quality education is useful in developing the learning which is helpful in the further learning.

## Reading and Comprehension [25]

Education is not good until it create the reading habit among the students. Children in their child hood must be provided with the storybooks so that they may develop the reading habit in future. Some students even do not read a single book apart from their text books so developing the reading habit is a part of quality education.

## Creative Attitude [25]

Giving up the right answer is most difficult task in the education community so there are many alternatives answer to the question so always look in the opposite side so this is helpful in creating the creative attitude so being creative is easy by looking at the opposite in the daily life problem.

## Empathy [25]

Education must develop the human who feel and think about the issues which the humans are facing. There are some issues about which we cannot do anything. We need to be thinking and feeling individuals. Quality literature is the key to this education. Study of literature is very important for every student not for the students who are interested in it but also to all the other students so it is part of quality education. Very much students do not read a single book of literature specially the Urdu so we have not to do this because it is against the quality education.

## Effective Verbal and Written Communication [25]

Students must know about the presenting of the idea in the shortest possible time. Listening skills must also be very good of the general student. Apart from the verbal skills students or people working in the office must have good communication skills so they do not need to dependent on other people for writing a letter the main way is to improve communication is through the practice's.

## Sense of Direction [25]

We need to develop direction of our life no one has the control over his life so everyone has to set it clear goals and make efforts to achieve that goals . Quality education is helpful in developing the sense of direction. To do this we have written goals with our strength and weakness and try to match our goals with our strength. Finally no business in the world is successful without the cooperation of the customers so parents and students are customer of education industry so we have to improve our quality education through them.



**Figure 2.1:** [25]

Every schools and enterprise, personal or commercial, are propelled by particular key factors, such as the human force and goals. Others, such as governmental regulations, are external. Identifying and assessing these fundamental factors is both the starting point and one of the objectives of the scenario methodology [20].

Underlying driving forces can include social dynamics, educational issues, technological issues, economic issues, political issues, environmental realities, technological change, government economic and social policy, demographics, international environmental institutions, and world commodity markets [20]. Is control of driving forces a possibility?

Change is the human experience consists of matching our capabilities against the challenges we face [20]. There are three possibilities [7, 20, 21, 22, 23, 29, 30]:

- Challenge= Capability



**Figure 2.2:** [27]

That means:

Ability / Willingness= Design/ Opportunity

We seek this kind of balance because it makes us feel that things are predictable and thus is easier to manage.

Real change occurs when the balance is disrupted. There are two ways the status quo can be disrupted, Positive Change or Negative Change.

- Challenge< Capability



**Figure 2.3:** [27]

There is a Positive Change.

When people believe their capabilities exceed a challenge, they generally feel positive because the outcome is not only desirable but expected ( for example the birth of child).

- Challenge> Capability

When the reverse is true, people feel negative not only because the outcome is undesirable, but also because such situations lack predictability.



> Negative Change

**Figure 2.4:** [27]

Two opposing forces influence change of labor market:

One that drives for change and one that resists [20].

Which of the following forces affect your organization?

Check the ones which apply to your group.

**Driving forces** initiate change against and keep it going.

**Resisting forces** act the driving forces for change.

They may be:

- Your source of founding is to do being reduced or increased. been done.

- \* Your group fears new ideas and prefers things the way they have always

- The interest and needs of twenty people involved in educational process in your keeping busy
  - Government support is increased or diminished.
  - There is pressure to use modern technology. syndrome[4].
- \* Your group function the same way it do years ago, out of habit.
  - \* Your group performs activities just for the sake of organization are changing.
  - \* Your group's executive has very few changes or low turnover.
  - \* Some of your actors involved in educational or process could have accelerated thinking

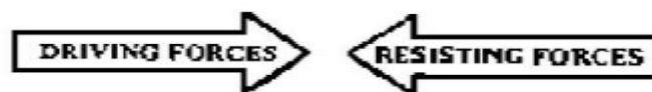


Figure 2.5 [27]

- Some of your actors involved order to in educational process could system have a charming reflection of between the power of intelligence and critical thinking[20]. the Land
  - Membership is increasing or persons dropping. attend
  - Members have different views of the groups purpose. of
  - Revolutionary teachers show that all of us have the ability to strong increase children the brilliant and fascinating students.
  - When projects or programs are the
- \* There aren't still a lot of things well done in reach a high quality level for the educational and to reduce the present disparities existent rural and urban space.
  - \*According to the statistics, in the rural area, in of Severin, only 83% of the total number of (9,721) with an age between 6 and 19 years old a school[20].
  - \* A correlation between poverty and the degree participation to education.
  - \* The lack of stability of family incomes has a effect upon the students and their future.
  - \* There are reasons for school abandonment, noticed especially in the case of children from

evaluated a need to change which

isolated rural communities, or young students

is identify.

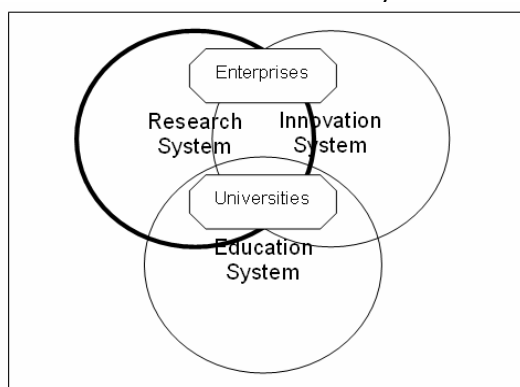
work to help their family, but also in the communities of Gypsies.

\* The weak motivation regarding the economic profit due to education.

We have little control over driving forces, and the only way we can leverage them is to recognize them for what they are, understand their effects, and contribute to creating new driving forces if we do not like the ones we find. In addition, it is very important to identify and understand the underlying forces, so that there is a framework in which to relate the deeper, more fundamental forces acting behind the scenes. The opportunities lie in understanding the arc of change and moving in that direction.

Scientific discoveries are key drivers of economic growth, driving and fueling the economy [20].

Leading economists have identified technological progress as the single most important determining factor in sustained economic growth. While some technologies can be anticipated, especially those that are improvements or new uses of old technologies, there is such rapid change in fundamentally new areas that it is hard to fully understand the implications [20].



**Figure 2.6:** [20]

Examples are the human genome project, the explosive changes taking place in information technology, the growth of nanotechnology, and biotechnology, which has the potential to transform areas as different as farming and computer technology [7, 20, 21, 22, 23, 29, 30].

### **3. BACKGROUND [7, 20, 21, 22, 23, 29, 30]**

All members of our team are actors of educational process as teachers, managers or parents and we try to understand and to grow up the potential of our tooth students and children. This paper is first step but not the last.

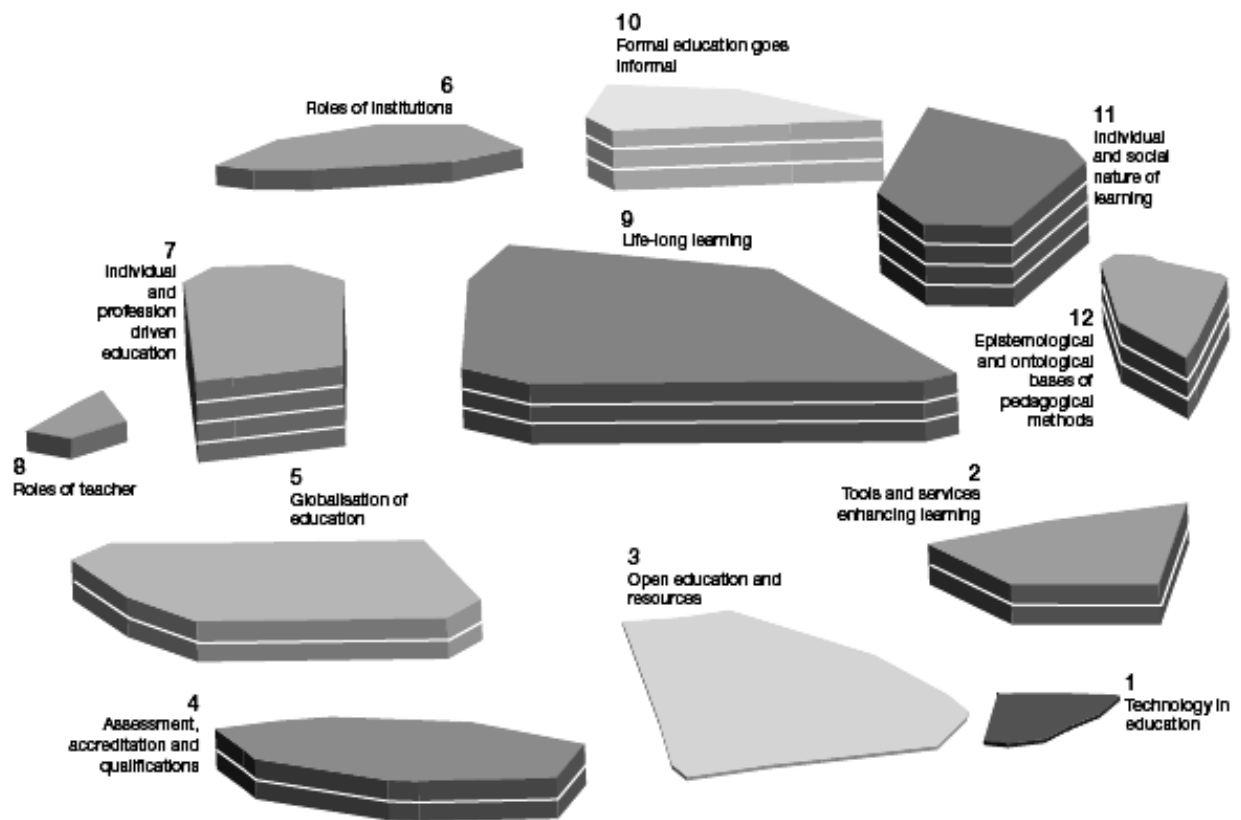
Our group takes a look at Group Concept Mapping (GCM) [10] and we applies a structured participative approach to facilitate groups of experts to arrive at a consensus about a particular issue, characteristics of Quality Assurance of Education in the future, regarding to its interdependence with Change, Technological Changes, Innovation and Competitiveness, R& D and revival of Romanian economy [20 ].

As GCM model, this analysis depicts, in the form of thematic clusters, the experts' common understanding of the issue under consideration. We use a structured facilitative multi-step approach including a number of simple and intuitive activities such as idea generation, and sorting and rating of ideas. The research method, by its "hybrid" nature, can easily integrate any qualitative method for data collection and analysis, such as individual interviews, surveys, focus groups or Delphi method.

That means [21]:

- All educational systems in Europe will be connected in a central system to identify the best students in order to support them no matter their country of origin.

- In Europe (EU) many students will learn with and from each other in international collaborations.
- We will cease to rely on experts as the source of knowledge and curriculum and move towards quality based on use and endorsement through internet systems.



**Figure 3.1:** [20]

### 3. DATA AND METHOD [7, 20, 21, 22, 23, 27, 28, 29, 30]

The study was carried out by using the statistical data collected from the Institute of Statistics from Drobeta Turnu Severin, Princeton and Bucharest, and the Reports of World Bank, UN, or UE Commission. We examined to underline the aspects regarding the quality of educational sector from the studied area, both by outlining the major problems and also by finding adequate solutions for a long-term quality improvement of interdependence within another sectors of activity.

For a better understanding of the above-mentioned phenomena, the data and the results required a graphic representation in order to emphasize the spatial distribution of the studied elements, as well as the size of the actual phenomenon. In this respect, we used some column graphics and maps using the ArcGis 9.3 software, made by Tudora D. [12], the research of Feraru P.D [7] and the statistics made by experts from World Bank, United Nation [23] or UE Commission [24] .

Concept maps are graphical tools for organizing and representing knowledge that explicitly express a person or group of persons' understanding about a domain [28]. A good way to delineate the context for a concept map is to define a *Focus Question*, that is a question that clearly specifies the problem or issue the concept map should help to resolve. Every concept map responds to a focus question, and a good focus question can lead to a much richer concept map, as will be examined below. When learning to construct concept maps, learners tend to deviate from the focus question and build a concept map that may be (somewhat) related to the domain, but which does not answer the question. This is fine in the sense that the map built probably answers another focus question, and so the focus question of the map should be changed to reflect this. (CmapTools provides a field for the focus question as part

of the information that is stored with a Cmap, and the focus question is displayed in the header of the window when a map is displayed, making the focus question explicit to the viewer). In the case of a school-learning environment, it may be important to have the learner go back and construct a concept map that responds the original focus question[28].

#### Beyond the Focus Question: Asking Students Questions [28]

Starting with a single focus question does not imply that the 'job is done' when that question is answered. Fagundes & Dutra (2006) emphasize in their work with teachers and students the importance of questioning each individual concept in a concept map (do I understand what this concept really means and its relationship with its linked concepts?) This leads to further research and searching, and to the generation of focus questions for other concept maps that may end up linked to the original map[7,20,21,22,23,29,30].

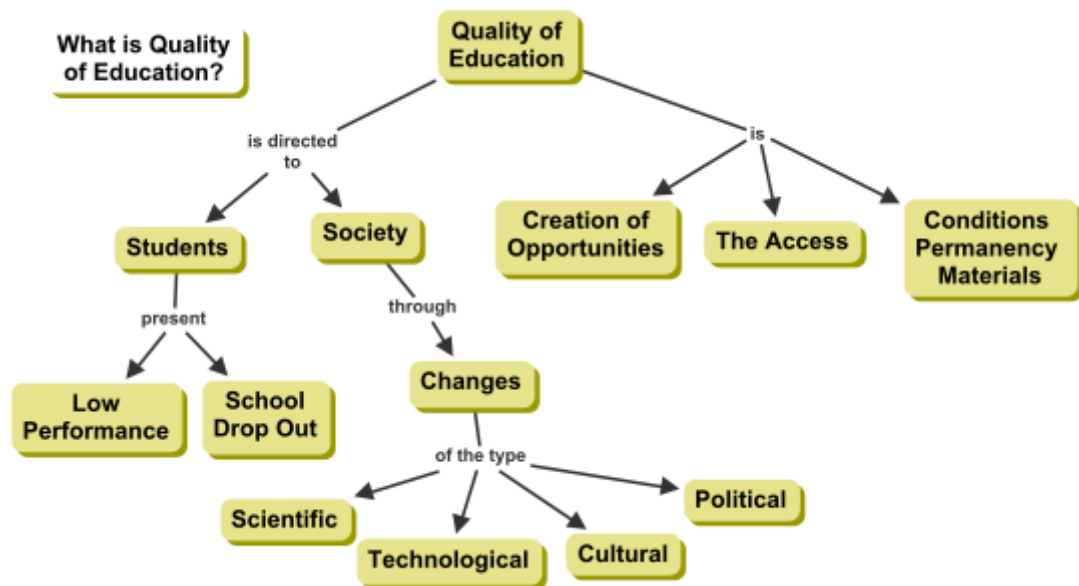
As a student is building a concept map, the teacher should probe the student to (a) find out how much the student knows about the topic and how his/her understanding evolves, and (b) help the student go deeper into understanding the subject and thereby improve, refine or expand the concept map. Unfortunately, there is little research on question-asking during concept map construction. Chacón (2006) has reported on the "pedagogical question" and its use as a mediating instrument during concept map construction. She refers to three moments during the construction of concept maps: (a) defining the context, where she proposes that questions be asked that help determine the context, such as "Why are we addressing this problem?", "Why use concept maps to solve this problem?", "Where do we find information?" among others; (b) development of the concept map, where the focus question is constructed, inquiry questions such as "where? what? who?" help establish what the student(s) already know, verification questions are used to verify whether propositions in the concept map are true or not and if they are coherent or not, and amplifying questions help find out if information is missing or concepts need to be expanded and crosslinks added; (c) awareness, where through questions the student can take cognizance over how he/she is building his/her Cmap both during map construction and when finishing the construction. Questions at this time are aimed at the metacognition, becoming aware of how the concepts and propositions are build, decision making has taken place, with students offering explanations: "I am describing...", "I am deducing...", "I am establishing a relation...", "I am applying...", "I am assuming..."[28]

#### The Focus Question and Dynamic vs. Static Knowledge [28]

In companion documents we have discussed how concept maps focused on events tend to be richer in explanations whereas concept maps focused on objects tend to be more descriptive ([What is a Concept? ... from a Concept Mapping Perspective](#), [What are Linking Words? ... from a Concept Mapping Perspective](#)), and examined the distinction between static and dynamic propositions ([What is a Proposition? ... from a Concept Mapping Perspective](#)). In general, concept maps showing explanations require more deep or dynamic thinking. We have observed, however, that most concept maps deal with objects, not with events, and propose that through the proper focus question, and through questioning in general, we could move towards the dynamic thinking that is required to build concept maps showing explanations.

In a series of studies, Safayeni, Derbentseva and Cañas (2005) have found that the structure of concept maps can be indicative of the level of thinking expressed in the map. For example, concept maps modeled with a circular structure (see Figures 1 and 2) lead to significantly more instances of meaningful or dynamic propositions when compared with concept maps modeled with a tree-like structure. In work presented at the Concept Mapping conferences (Derbentseva, Safayeni, & Cañas, 2004, 2006) they further report on experiments comparing two strategies to encourage the construction of more dynamic relationships: the use of quantifiers on the root concept of a concept map and a dynamic focus question. Interestingly, although a more dynamic focus question has an effect on the nature of the propositions generated, it is adding a "quantifier" to the root of the concept map that has the greatest impact. Although the results of the experiments are preliminary, they report on three

methods by which more dynamic thinking can be encouraged: cyclic maps, a dynamic focus question and a quantified root concept[7,20,21,22,23,28,29,30].

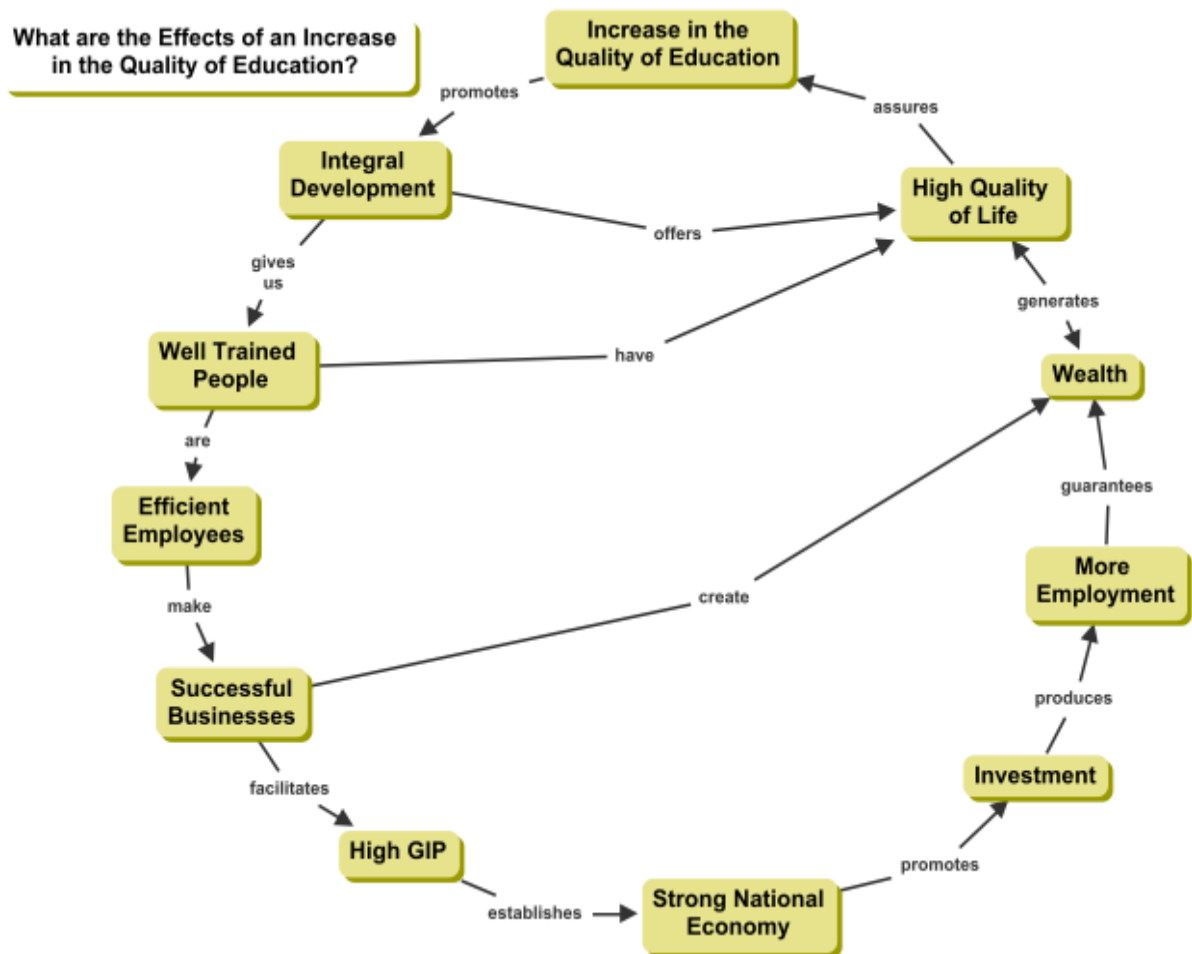


**Figure 3.2:** Tree-structure concept map generated from a static focus question[28]

We have started applying these ideas in our work with concept mappers, and have found that although a more dynamic focus question can generate a more dynamic map, concept mappers often ignore the question's nature and construct a declarative concept map. Adding a "quantifier" to the root concept, as reported above, tends to force the mapper to generate a more dynamic set of propositions. This is shown in two concept maps on the topic "Quality of Education" constructed by teachers during workshops, where the concept map in Figure 1 was constructed from the focus question "What is Quality of Education?" and was not given a root concept, resulting in a declarative type map, and Figure 2 was constructed from the Focus Question "What are the Effects of an Increase in the Quality of Education?" and a root concept of "Increase in Quality of Education" (an event), resulting in an interesting cyclic map based on dynamic propositions.

Lets not misinterpret our recommendation for more dynamic concept maps as implying that declarative concept maps are no good and should be avoided. There is room for both types of representations, both declarative and explanatory. A good descriptive map will definitely show understanding by the map builder. We are emphasizing the need to not stop there and move on to also elaborate maps that are more explanatory[7,20,21,22,23,29,30].





**Figure 3.3:** Cyclic concept map generated from a dynamic focus question and a quantified root concept [28]

Some Examples

#### Static Focus Questions

- What are the parts of a plant?
- What is the Ozone Hole?
- What is the Panama Canal?
- What is a compound interest rate?

#### Dynamic Focus Questions

- How do the different parts of the plant help to produce food for the plant?
- What effects does the Ozone Hole have on health and global warming?
- How has the Panama Canal influenced Panama, economically and culturally?
- How can we take advantage of compound interest rates to save for retirement?

The studies by Safayeni and colleagues serve to illustrate how much we have yet to learn about strategies for optimizing the use of concept maps for the encouragement of high levels of dynamic thinking and meaningful learning. Their work also serves to illustrate the importance of defining and using good focus questions. This has long been recognized, and it is one reason why CmapTools calls for the inclusion of a focus question whenever a concept map is saved. Unfortunately, we often see that concept mappers fail to define a focus question in advance of building a concept map, or they simply ignore the question as their map construction progresses.

The relevant final stage for the study was the analysis and the interpretation of the results obtained, which completed the general image over the quality assurance of educational system, as first step to improve the access of youth to Romanian Labor Market marking the positive and negative aspects with the problems that determine a defective system influenced by factors that are internal and external to the respective region.

Using the statistical data available, we have indicated the index of accessibility to Education [20] (calculated by Tudora D.), the values being represented on accessibility maps to different types of educational services, starting with the ones that are compulsory, primary and secondary, up to the facultative ones, college and higher education (academic and post academic). Besides the accessibility of the population to educational services, we have indicated other basic indicators to emphasize the major disparities existent, at regional level, between the two spaces. One is the gross rate of school inclusion or indicators based on Tudora's research [20] when she made comparative analysis regarding the human resources (the average number of pupils/teacher) and the material resources (the number of schools from the pre-academic education).

By using the descriptive analysis of the data, we presented the distribution of the values for the indicators calculated in relation to the standards or the reference objectives established by the National System of Indicators for Education. In addition, by processing the statistical data regarding quality of education, we obtained the necessary information to describe the functionality and the level of performance of the educational system and to examine the evolution in quality assurance of education in time and space [20].

#### 4. RESULTS AND DISCUSSIONS [7, 20, 21, 22, 23, 26, 27, 29, 30]

Evaluation of the quality of education

The quality of education is an entity consisting of various components.

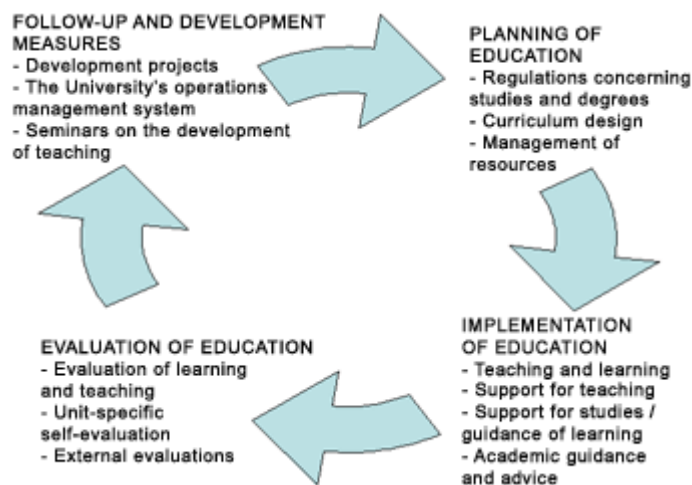


Figure 4.1: [26]

- **Quality assurance in the faculties and departments**  
A significant part of measures concerned with assuring the quality of education take place in the faculties and departments in the form of the procedures that are followed in the planning, implementation, evaluation and development of education and teaching.
- **Strategic planning and operations management**  
The focal starting points of education are defined in the University's Strategic Plan and in the Programme for the Development of Teaching and Studies. The evaluation of education and development measures, as well as the evaluation of the attainment of set objectives, is part of the University's management system, strategic planning and operations management.

- **Networking and University-level guidelines**

The University Senate decides on the most important guidelines on educational policies, which are prepared by the University's Academic Affairs Committee. The guidelines are prepared in cooperation between various experts (including faculty heads of academic affairs, vice-deans in charge of academic affairs and the Student Union)

### **Distribution of responsibility for the quality of education [20, 21, 22, 23, 26, 29, 30]**

- The provision of education is managed in the departments, as a whole. The School is responsible for the overall quality and resourcing of education.
- Faculties are responsible for the quality of their degrees, the attainment of agreed objectives, and for the allocation and prioritizing of resources.
- Departments are responsible for the quality of teaching and completed studies in their fields. More specifically, their responsibility encompasses curriculum design, setting learning objectives and defining field-specific learning assessment criteria and methods, and ensuring the professional qualifications and competence of their teachers.
- Each teacher is responsible for the quality of his or her teaching and for the assessment of learning outcomes as part of the teaching duty.
- Each student is responsible for the progress of his or her learning and studies

### **International evaluation of education [7,20,21,22,23,29,30]**

The strategic aim of our school is to reinforce its position among leading European schools both in research and teaching.

### **Self-evaluation**

The faculties and departments regularly evaluate their own teaching activities against the common goals and development challenges of the school community. Evaluation is part of the school's operations management process, in addition to which the school has a separate tool for self-evaluation, the Teaching Evaluation Matrix.

The Teaching Evaluation Matrix investigates teaching and its planning, implementation and evaluation as comprehensively as possible from the point of view of the entire faculty or department. Each aspect of teaching is considered in the light of a four-level framework, which sums up the spectrum of quality from passable to excellent. The definitions of quality are based on the School's Strategic Plan and the Programme for the Development of Teaching and Studies.

### **Centers of excellence in teaching [7,20,21,22,23,29,30]**

The school rewards its faculties and departments for high quality teaching by selecting every three years centers of excellence in teaching and granting these departments or institutes performance-based funding. The evaluation of performance is based on the self-evaluations of the quality of teaching conducted at the departments. The assessment criteria consist of the criteria compiled in the Teaching Evaluation Matrix, which specifies in concrete terms the School's strategic aims and development challenges. All the departments that submit a proposal for performance-based funding will receive feedback as part of the evaluation process.

## Awards

### Teachers' Academy

The Teachers' Academy is a network of teachers who have invested their time in the development of teaching, teaching skills and students' learning processes. The establishment of the Academy is an indication of the value the school community places on the quality of teaching.

### Outcomes of the evaluation

The evaluation of education and development measures, as well as the evaluation of the attainment of set objectives, is part of the School's strategic planning and operations management processes.

### The results of the evaluation are transferred to the following processes [7, 20, 21, 22, 23, 29, 30]:

1. The development challenges noted in the evaluation report will be considered in the preparations for the next strategy period.
2. The faculties will plan development measures which will be discussed in target negotiations between the Headmaster and the relevant units.
3. The faculties will devise three-year target programmes.
4. Reports will be drafted of the implementation of the target programmes and development projects.[28]

On the one hand, the scope of this paper is to present low results of quality educational sector, with implications for jobs of youth in the rural area from the Land of Severin, and to apprehend the way in which the spatial distribution, mainly deficient, of some general social services, leads to the occurrence of territorial disparities aimed to keep different chances of human development for the social categories considered equal from the political point of view (Tudora, D., 2009) [7,20,21,22,23,29,30].

On the other hand, we present high results of quality educational sector in two educational units where Romanian students are brilliant. That means good jobs for our young people [20]. The synthetic index of accessibility to education has the advantage to estimate the accumulation of social capital (Flores M., Rello F., 2003; Putman R., 1993; Coleman J., 1988), being calculated using the following formula:

$$A_{ed} = A_{ep} + A_{ep} \times A_{eg} + A_{eg} \times A_{es} + A_{es} \times A_{eu}$$

where:  $A_{ed}$  represents the accessibility to education;  $A_{ep}$  is the accessibility of the population to primary educational services;  $A_{eg}$  represents the accessibility to secondary education;  $A_{es}$  represents the accessibility to high school education; and  $A_{eu}$  represents the general accessibility index to services of higher education. Each of these partial indicators was calculated using specific formula regarding the accessibility of population to different levels of education and the local and regional polarizing centres.

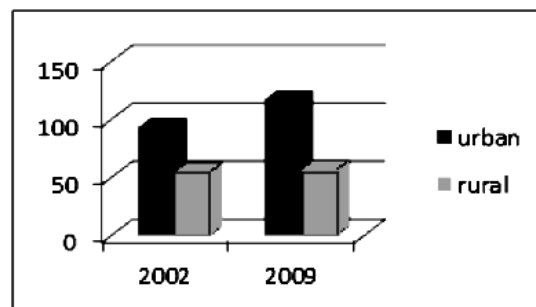


Figure 4.2: [20]

The gross rate of school inclusion for all education levels, expressed in percentages, represents the total number of kindergarden children, pupils and students included in all levels of education, irrespective of their age.

The rate is calculated as ratio between the total of registered pupils and the population having the official age corresponding to all levels of education (3-23 years old)[20].

It is calculated using the following formula:

$$RBC^t = \frac{E_t}{P_{tv}} \times 100$$

Where:  $RBC^t$  – the gross rate of school inclusion in all levels of education in the academic year  $t$ ;  $E_t$  – the total number of pupils and students included in all levels of education, irrespective of their age, in the academic year  $t$ ;  $P_{tv}$  – the total population having the official age corresponding to all levels of education (3-23 years old), in the academic year  $t$  [7,20,21,22,23,29,30].

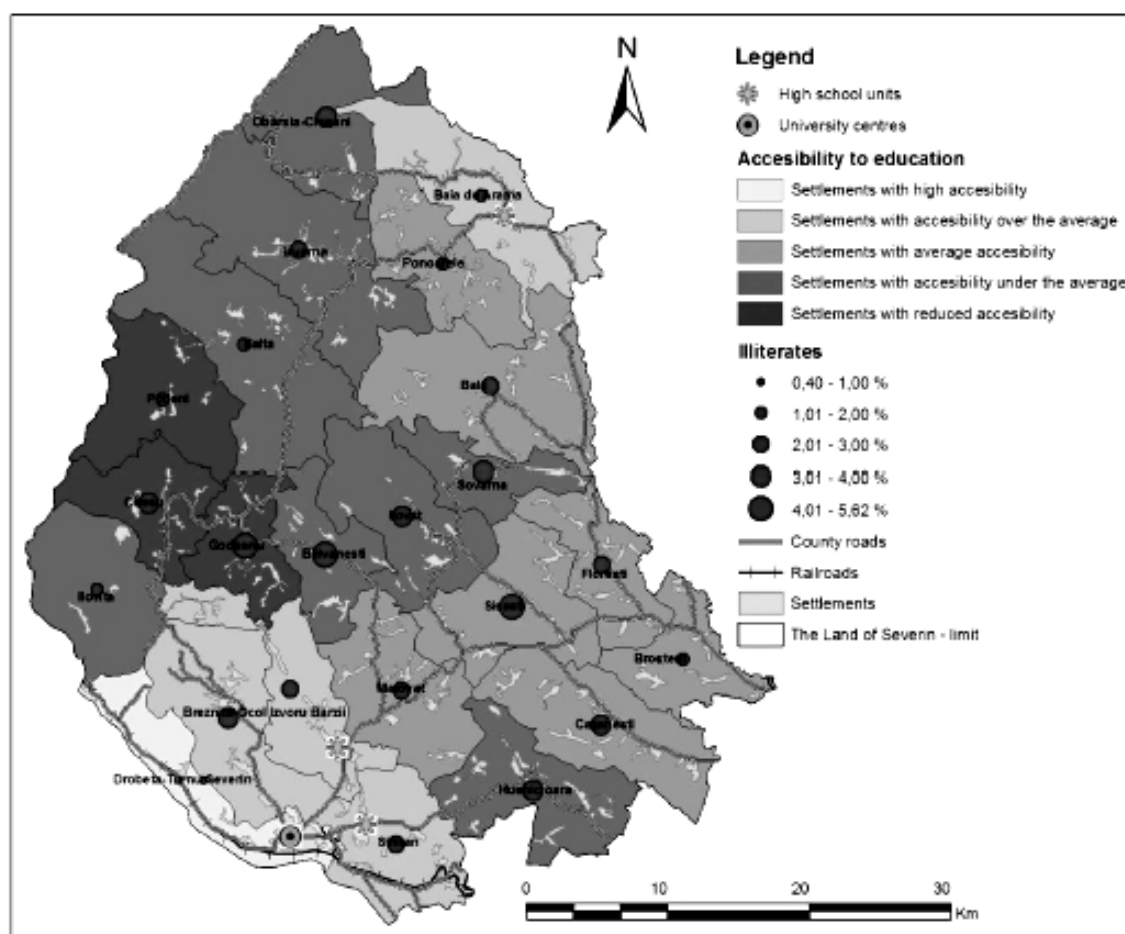
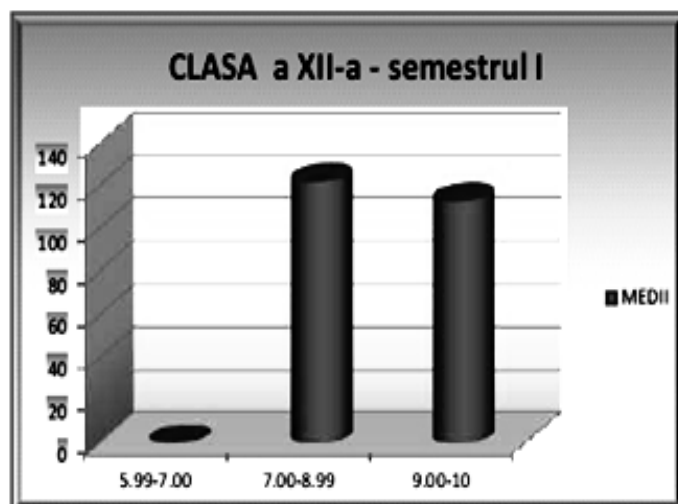


Figure 4.3: [20]

The human capital is of great importance for development, and the development and the diversification of the economy in the Land of Severin, especially in rural areas, depend on the level of education, skills, and qualification [20].

Although the improvement and the maintenance of an adequate level for the basic infrastructure is an important element in the social-economic development, the professional formation is the basic pillar for a healthy development [20].

Clasa	Medii între 5,99-7,00	7,00- 8,99	9-10
XII A	0	17	13
XII B	0	12	14
XII C	0	17	10
XII D	0	20	10
XII E	0	16	8
XII F	0	18	9
XII G	0	11	18
XII H	0	21	9
XII I	0	7	22
TOTAL	0	122	113



**Figure 4.4:** [20]

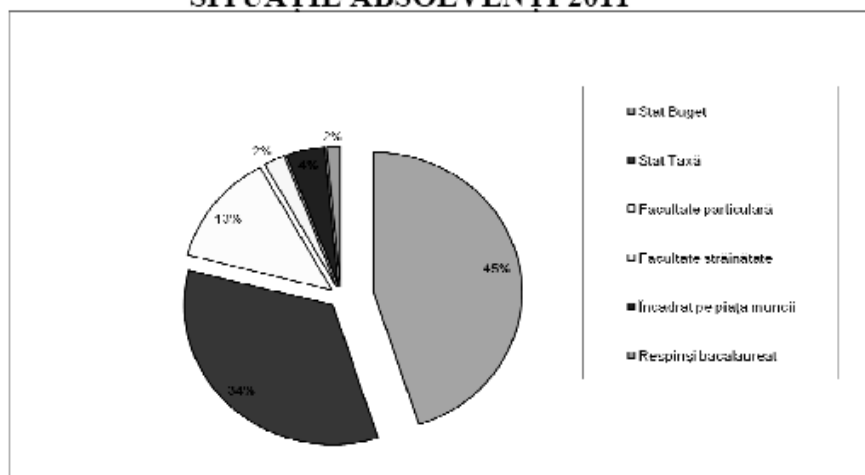
When we talk about quality assurance of education at "Virgil Madgearu" Economic College from Bucharst we can see very good results [20].

*Raport privind starea și calitatea învățământului*

*An școlar 2010-2011*

Facultatea					Facultate particulară		Facultate străinătate		Încadrat pe piața muncii		Respinși bacalaureat	
Total	Stat Buget		Stat Taxă									
262	118	45%	89	34%	34	13%	6	2%	11	4%	4	2%

#### SITUAȚIE ABSOLVENȚI 2011



**Figure 4.5:** [20]

At one of the most valuable in the world universities, Princeton University, was established in the last 20 years an interesting Romanian nucleus by remarkable members: Liviu Iftode- PhD Professor, Department of Computer Science, Rutgers University; Radu Popescu - Ph.D., P.Eng., Consulting Engineer, URS Corporation, Research Professor, Faculty of Engineering& Applied Science, Memorial University of Newfoundland; Ana Caraiani - Ph.D. Harvard Department of Mathematics [7,20,21,22,23,29,30].

## 5. YOUTH UNEMPLOYMENT AND VOCATIONAL TRAINING [7, 20, 21, 22, 23, 29, 30]

There are some general points to be made which are relevant for most medium- and low-income countries [7].

- *Promoting general education*
- *Stimulate the creation of formal and sustainable jobs*
- *Modernize vocational school*
- *Bring academic education closer to the private sector*
- *Starting from regional or sectoral clusters*
- *Upgrading vocational training in the informal sector*

### 5.1 Challenges of the German dual vocational training system [7, 20, 21, 22, 23, 29, 30]

Germany and many neighboring countries are characterized by 'dual' vocational training combining work experience, learning on-the-job and classroom education as the dominant pathway from school to work. Apprenticeship graduates generally have a smooth transition into employment [23].

Five features lying at the core of Germany's quite successful dual vocational training system have been identified. They are partly being implemented by the above mentioned organizations and their partners abroad. However, one should note that it is impossible to merely copy the system as a whole due to differing institutional and economic structures.

First, a **close cooperation between government and economy** (mainly the private sector) is indispensable if functioning vocational education structures are to be established.

Second, **'learning while working'** in workplace training conveys practical skills to the trainees and enhances their future employability. It also secures that the skills learnt match current la-bor market needs efficiently. At the same time, young people as well as trade unions should be willing to accept lower temporary earnings in exchange for quality skill acquisition.

Third, **society should accept common standards** that both employees and employers have to meet in order to provide for comparable outcomes at the end of the vocational training phase so that job movements between companies become feasible.

Fourth, **qualified teachers contribute to a successful procurement of general skills** in the school-based training.

"Curricula for general education at vocational schools are essentially developed by the individual *Länder*. The Federal Agency for Employment (BA) is responsible for consultancy on and provision and promotion of vocational education and training for young people and companies, on the basis of the *Sozi-algesetzbuch III* (SGB III)" (Hippach-Schneider, Krause and Woll 2007, p. 19-20). Employer and employee representatives contribute to facilitating examinations and ensuring that training venues fulfill all required criteria for vocational training [23].

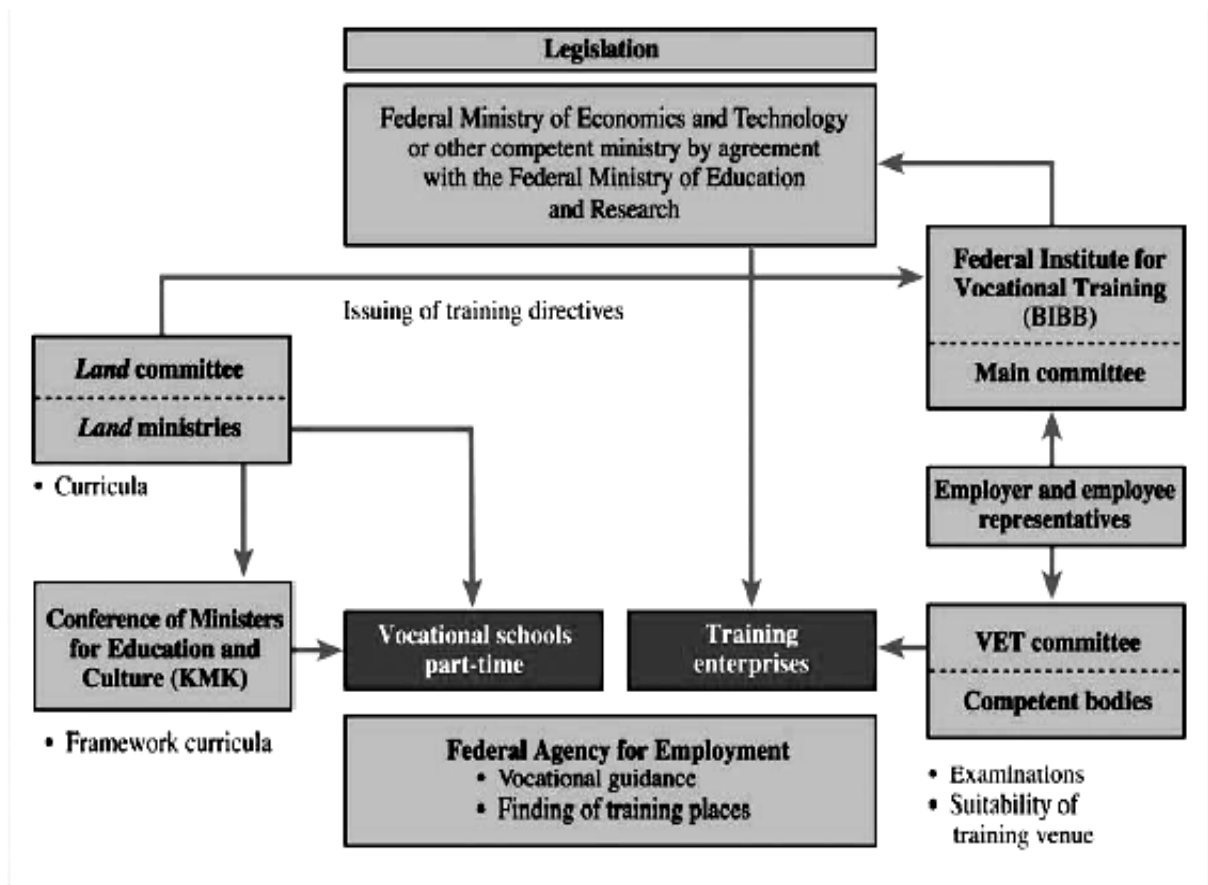


Figure 5.1 [23] Responsibilities in the field of vocational training

Source: Federal Institute for Vocational Education and Training, 2006 in: Hippach- Schneider, Krause and Woll 2007, p.18.

## 5.2 Transition Countries: Russia and Eastern Europe [7,20,21,22,23,29,30]

1. In the aftermath of the transition, young people in Eastern Europe were among the losers of the transition to a market economy. Despite some improvement the situation remains difficult. Among those young people who work, many do so in second-best jobs (with lower wages and high turnover) or in the informal labor market. Since the early 1990s, the returns to education have risen rapidly. Similarly, the employment prospects have improved with education, leading to an increase in secondary and tertiary education enrollment (especially in the EU new member states).

2. With the industrial restructuring, the communist vocational training system came to an end, and the dual apprenticeship system of the socialist era was replaced by school-based training. The lack of on-the-job training or coordination of employers and training providers led to an increase in skill obsolescence and mismatch as well as increasing skills shortages.

3. The poor labor market prospects combined with the increased returns to education and the inadequacies of the vocational training system set in place during the transition are factors explaining the increase in the relative demand of general secondary education granting access to tertiary education. Creaming the most socially advantaged students towards the academic track is exacerbating social inequalities [23].

Youth unemployment is a relatively recent phenomenon in the countries of Central and Eastern Europe. And similarly to the dynamics of the overall unemployment rate, there was a downward trend in youth unemployment during the first decade of the century, interrupted by the 2008 financial crisis. The crisis drove a considerable rise in youth unemployment in Central and Eastern Europe, from 21% in 2007 to 27% in 2009 (unweight data) (Koettl, Oral and Santos 2011).

While the virtual collapse in the demand for labor explains the surge of youth unemployment in the transition region in the 1990s, its dynamics in the later periods was more and more closely determined by the institutional aspects of the labor market as well as of the education



system. Recent analyses suggest that institutions, such as employment protection and ALMP indeed play a role in defining youth unemployment in the region. In particular, stricter employment protection is associated with higher youth unemployment, and larger spending on ALMP is associated with lower youth unemployment (Lehmann and Muravyev 2012). Overall, however, the countries of the region have a rather modest level of the rigidity of labor market institutions. For example, employment protection in most transition countries is less stringent than in the old EU member states and much less stringent than in the countries of Southern Europe. This is often coupled with poor enforcement of labor laws in Central and Eastern Europe and similarly to the dynamics of the overall unemployment rate, there was a downward trend in youth unemployment during the first decade of the century, interrupted by the 2008 financial crisis. The crisis drove a considerable rise in youth unemployment in Central and Eastern Europe, from 21% in 2007 to 27% in 2009 (unweight data) (Koettl, Oral and Santos 2011) **[7,20,21,22,23,29,30]**.

Overall, however, the countries of the region have a rather modest level of the rigidity of labor market institutions. For example, employment protection in most transition countries is less stringent than in the old EU member states and much less stringent than in the countries of Southern Europe. This is often coupled with poor enforcement of labor laws in Central and Eastern Europe (Eamets and Masso 2005) **[23]**.

The migration of the human capital increased all over the world **[7]**. The international mobility of the human capital follows the pattern of "brain circulation", which implies to a great extent immigrants temporarily qualified. In the developing countries, including the ones specific to the area in the South-East of Europe, mobility is, for the most part, in the form of "brain drain", which is an international transfer of unidirectional highly educated professionals. This second category of the people educated on a permanent basis is the object of the present study. Starting from the form of migration called brain drain, we gradually reached the form of migration of young men for study, which we generically call "intelligence migration". The migration of young Romanians is nowadays one of the crisis social solutions for critical life situations with short-term advantages **[7, 20, 21, 22, 23, 29, 30]**.

The study argues in favor of promoting vocational education and training tailored to labor market needs, but taking into account peculiar starting conditions found in a given national or local context. While good education and training can contribute to economic productivity and social cohesion, vocational education and on-the-job-training with young workers and companies also need to involve governments, social partners or other societal actors to be stable and effective.

Challenges, but also capacities to act vary across countries and world region, depending on economic, institutional and societal context. Yet, there are some general points to be made which are relevant for most medium and low-income countries **[7, 20, 21, 22, 23, 29, 30]**.

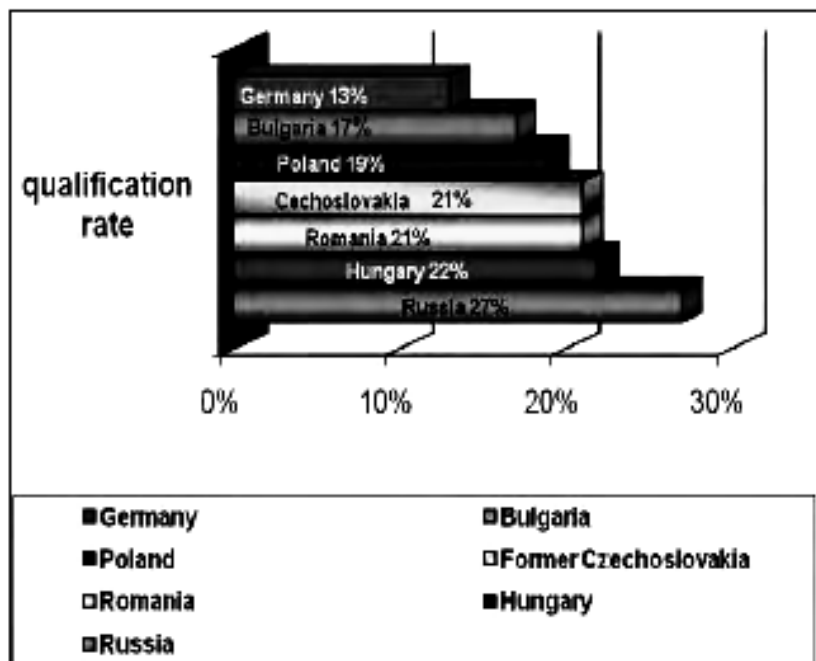
## **6. YOUNG PEOPLE, MIGRATION AND SOCIAL CHANGE IN ROMANIA [7, 20, 21, 22, 23, 29, 30]**

The external migration from Romania is a phenomenon that started after December 1989 and for the past years Romania has become one of the most important origin countries of the East- European migrants **[7]**.

Most Romanians who choose to emigrate are young men with a high degree of education and only a small part come from ethnic minorities. According to the data supplied by Caritas Romania and Caritas Italy, half of the Romanians who emigrate are between 22 and 44 years old, of which three quarters are high school graduates and a quarter are university graduates (Pittau, Ricci and Timșă, 2010, p. 14) **[7,20,21,22,23,29,30]**.

The characteristics of the Romanian emigration include the characteristics of the "brain drain", thus those of a selected emigration, including mainly highly qualified workers rather than less specialized workers. The flow of professionals and highly qualified workers from the past years has become a notable phenomenon. According to the National Institute of Statistics, the percentage of emigrating university graduates increased from 6% in 1990 to 23% in 2002. According to a study of UNESCO Higher Education Statistics, the number of the Romanian young men studying abroad increased by 56% during the last decade, becoming over 22,000 in 2009. Until the beginning of the global economic crisis, their number increased by 52%. According to the representatives of the educational fair Romanian International University Fair (RIUF) and the years 2010 and 2011 follow the same ascending route regarding the young Romanians' desire of studying abroad (Murgu, 2011). In an estimation of the qualification rate

of the stock of immigrants, or the proportion of qualified migrants from the total number of migrants and the comparison to the autochthonous resident proportion, the result is a surprisingly significant difference between groups in favor of the Eastern countries: in Germany, the qualification rate is 13%, while in the former U.S.S.R. is doubled to 27%, in Hungary it is 22%, in Romania and the former Czechoslovakia 21%, in Poland 19%, in Bulgaria 17%. It is noticeable that this rate is high in Romania (21%) (Figure 13).



**Figure 6.1:** [20] Qualification rate (or the proportion of qualified migrants in the total number of migrants and the comparison to the autochthonous resident population)

Source: According to the data on <http://www.econtext.ro/eveniment--2/social/numarul-tinerilor-romani-plecati-la-studiu-in-strainatate-a-urcat-cu-52-in-ultimii-zece-ani.html>

What is interesting is the quantification of the consequences of the intelligence migrations on the economies of the origin countries especially as in most cases of these migrations people have no choice but to work in fields under their professional formation level[7]. This phenomenon is called "brain waste". As we will ascertain from the outcomes of the study achieved in Italy, most (42%) students state that they do not want to return to their origin country, while actually the highly qualified want to remain in their own country in certain life and labor conditions. This happened starting with 2008, along the beginning of the economic crisis, while 23% of the Romanian population was running the risk of poverty, namely having incomes below the threshold of poverty (Eurostat, 2009)[7].

The analysis of the migration phenomenon among Romanian young men, namely among the young men that go to Italy to study started from the interview done in the summer of 2010 in Bologna, Italy, with Ioan Eugen Popițiu, the coordinator of the Italian Branch of the League of Romanian Students Abroad. The purpose of the research was to analyze of the reasons for which this special segment of the Romanian immigration does not want to return to Romania after CES Working Papers 330 The descriptive character of the overview of some studies in the field illustrates the main national changes regarding the situation of the Romanian young people and the values that dominate this young segment of Romania nowadays. A series of data is presented from studies achieved between 2005 and 2011 in Romania and Italy, for the age category 18 – 35 years [7]. Romanian young men go abroad to work and study, as in their origin country their true value is not appreciated. The study "Romanians and the Migration of the Manpower to the European Union"\*, discusses by Stoian in a national newspaper, shows that the main reason of the Romanians' departure is the need of esteem (Stoian, 2005). The top of the favorite destinations of the Romanians who emigrate is, according to the quoted source, made of countries such as Italy, Spain or Germany. The young men between 19 and 35 years old and high school graduates have the most acute feeling of lack of value appreciation. Hence, according to the study, 85% of the respondents said that they knew personally someone who worked in a country of the European Union, of

whom 29.5% asserted that they knew someone in Italy, 22.4% in Spain, and 13.5% in Germany [7, 20, 21, 22, 23, 29, 30].

The study was achieved between September 20th and November 1st 2005, on 884 persons, mostly young men between 19 and 35 years old (49.43%), who responded to questionnaires in the counseling offices for citizens all over the country [7].

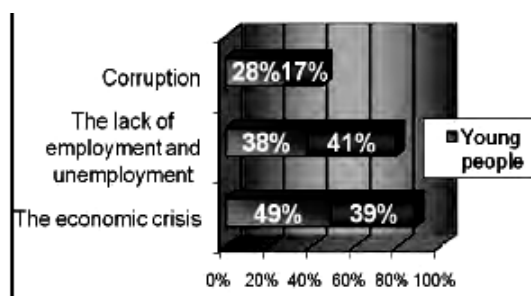
Germany is included in the top of the favorite work destinations, first of all due to the Romanians' impression regarding Germans as a nation: we know that they are responsible people, who pay correctly; a country where you do not expect any unpleasant surprises (Stoian, 2005) [7,20,21,22,23,29,30].

Romanians (75%) want to leave to the countries of the European Union for reasons such as: a higher wage, a better life. Most reasons invoked by most questioned people as regards departing fall into the category "need of esteem": our people leave abroad to have their value appreciated, to earn the respect they do not get in Romania. The people who felt the need of esteem most frequently as an emigration reason were young people between 19 and 35 years old (77%) and high school graduates (76%). The second place is occupied, quite far from the first place, by the reasons that fall in the category need of safety, indicated by 13% of the respondents. What is interesting is the standard answer falling into this type of need, namely the search for a work place: people leave because they cannot find a job and cannot live decently in Romania. Romanian young men expressed in 2005 certain fears regarding what the integration of Romania in the European Union would bring in 2007. According to the same study previously quoted, of the total number of people that in 2005 expressed indirectly their fears regarding the integration, most are persons highly educated (48.7%) and young men (44.6%). The conclusion of the study is that people who emigrate are not necessarily the poor people from a former communist country, but professionally qualified young people, prepared to receive all the advantages of this opportunity [7].

The situation from 2008, according to the barometer created by the National Authority for Youth\*, is different, meaning that young people do not want to leave the country any more. Therefore, continuing to study in the origin country and finding a well-paid job prove to be the main targets of young people between 14 and 35 years old (Bardas, 2010). Only 9% of the Romanian young men want to leave the country, while one year before the percentage was 38%. In exchange, 11% stated that their main purpose was to continue their studies and 50% stated that they wanted to emigrate as tourists, and 29% stated that they wanted to work temporarily in the host country. School is not seen by young men as having a determining role in their formation for life: 55% of the young men between 14 and 35 years old consider that the subjects taught to them in school help them only partly to find a work place. The main values important to the Romanian young men nowadays are family, personal accomplishment and faith in God, though only 1% of them value tolerance and 1% value responsibility [7].

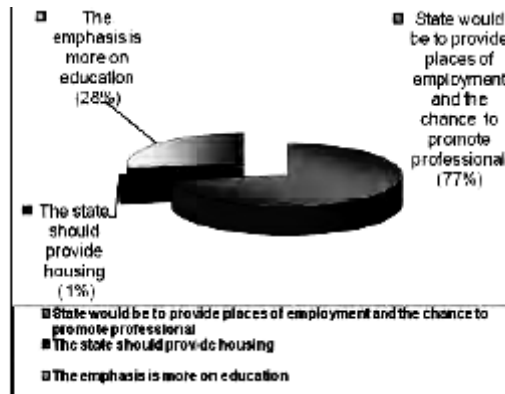
\* The research included 1.205 persons between 14 and 35 years old. † The poll was done between May 6th and 10th 2009, on 2,004 persons.

Another interesting study is the national poll "Young people and their Preoccupations"† done by the Ministry of Youth and Sports in which the adult population feels to a larger extent than young men – 41% in comparison to 38% - the lack of jobs and unemployment (Hainarosie, 2009) (Figure 2). At the same time, 28% of the young people identified corruption as one of the most serious problems that Romania is facing, while 17% of the adult population considers corruption a true problem [7].



**Figure 6.2:** [7] The problems of young men in comparison to adults in Romania

Source: According to the data on <http://www.ziare.com/economice/tinerii-resimt-criza-economica-mai-degraba-decat-persoanele-adulte-751452>



**Figure 6.3:** [7] The needs of Romanian young people

Source: According to the data on <http://www.ziare.com/economie/tinerii-resimt-criza-economica-mai-degraba-decat-persoanele-adulte-751452>

To young people in Romania the most important issue is professional career, which is put first by 37% of the respondents, while the objective of 1% of them is having a house. In comparison, as regards the purchase of a house, in the above quoted study, this was a dream of 90% of the young men, because of the lack of money. Asked about their needs, young people mentioned that the state is the one that should offer jobs and the opportunity of professional promotion (77%). A little more than a third considers that the state should offer houses, and 14% stated that education should be more emphasized [7].

According to the poll done in 2010 by the magazine Reader's Digest, by means of the Institute of Marketing and Polls, 91% of the Romanians with ages between 18 and 27 years consider that for the past five years the economic situation of the country has changed for the worse, almost 70% think that the quality of the educational system and of the medical services has lowered, and more than half (58%) assert that people are less civilized than five years before (Bardas, 2010)[7]. The research revealed the fact that the perception according to which the young people in Romania are confused, have not a well outlined value system and prepare, for the most part, to leave the country, does not correspond to the present Romanian reality. The most important values for the questioned young men are safety (79% of the young people placed it first as importance) and family life (75%). Only 29% of the young men dream about a thrilling life. Young people also appreciate education and skills and self-esteem – these qualities were placed by young people among the first five factors that determine the success in life, along with their influential family and friends, financial situation and good luck. The poll points out a new element related to the wisdom of these young people, which shatters the myth of the gap between generations, as most young men (almost 60%) "agree" or "somewhat agree" to the principles and life style of their parents. As regards the emigration intension, 33% of the young respondents are sure they will not leave Romania, while 17% of them are convinced that they will take this step.

## 7. MEASURING CHILD DEPRIVATION IN THE EUROPEAN CONTEXT [24, 29, 30]

The availability of EU-SILC data for 32 European countries of child specific indicators alongside household variables, and our experiences with monetary poverty and deprivation analyses, have inspired us to construct a child specific deprivation analysis[24]. The obvious start for such an analysis is the work of the Indicators Subgroup of the EU Social Protection Committee and the work of Guio (2009) who explored the deprivation indicators in EU SILC 2005. The results of the analysis for children based on the EU SILC data for 2009 are given in next figure.

The table shows the distribution of the number of items lacking in each country. Over all countries 78 per cent of the children lacked no items ranging from 97.3 per cent in Sweden to 19.3 per cent in Romania [24].

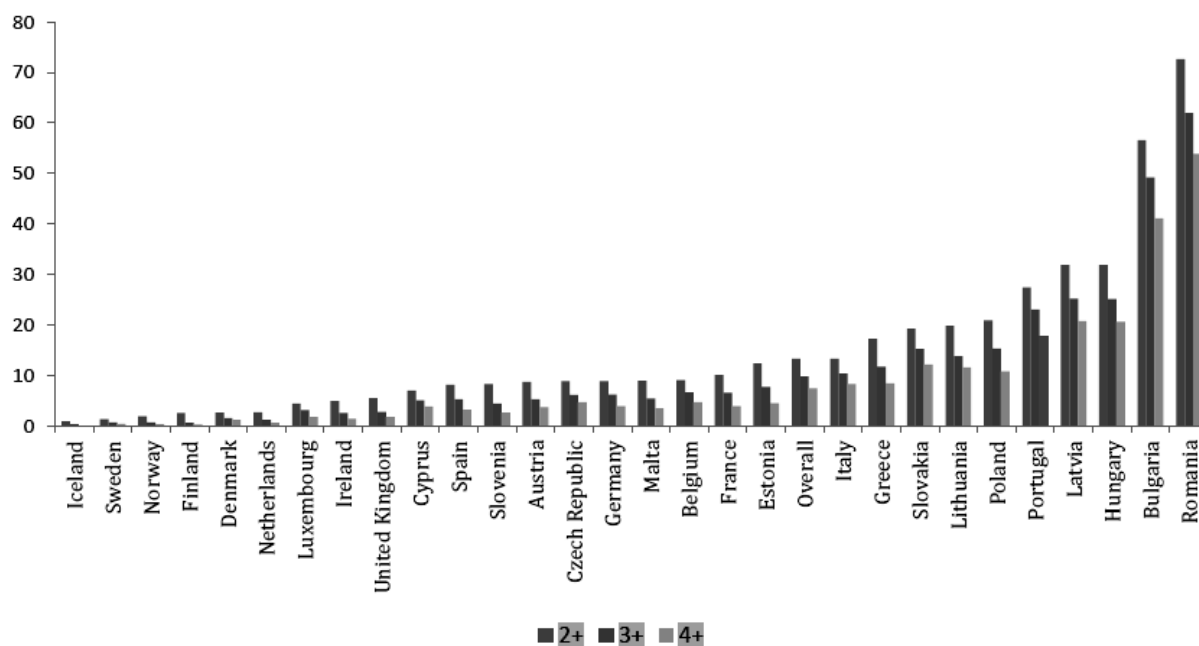
In general the countries fell into four groups: in the Scandinavian countries and the Netherlands less than 10 per cent of children lack one of the items on the deprivation scale (Denmark, Finland, Iceland, the Netherlands, Norway and Sweden); the large economies of "old Europe" (Germany, France, Spain and the UK) plus smaller countries like Austria, Belgium, Cyprus, Czech Republic, Ireland, Luxemburg, Malta and Slovenia show a score

between 80 and 89 per cent of children who do not suffer from deprivations measured by the scale indicators. Approximately a quarter of children in Estonia, Greece, Italy, Lithuania, Poland and Slovakia suffer from deprivation in at least one indicator compared to 40 per cent of children in Portugal, while only one fifth of children in Romania and slightly more than one third in Bulgaria do not suffer from any deprivation. Table 5 indicates the depth of child deprivation in each country and reveals the pattern of grouped countries; figures in all 14 columns indicate deprivation of all 14 items. In Bulgaria and Romania for example, respectively 1.6 and 2.2 per cent of children lack all 14 items; in Iceland 4.3 per cent lack just one item while the Scandinavian countries do not exceed four, and so on. All values of one per cent or less are omitted in the Table 1 [24].

**Table 1:** Proportion of children lacking each item by country [24]

	fruit	three meals	meat	clothes	shoes	inter-net	books	home work	fest-ivity	friends	school trips	equip-ment	leisure	games
Age	1 to 16	2 to 16	2 to 16	1 to 16	2 to 16	6 to 16	3 to 16	6 to 16	1 to 16	3 to 16	6 to 16	2 to 16	2 to 16	1 to 16
Overall	4.2	0.9	4.5	5.6	4.3	7.6	4.6	5.1	5.4	6.1	6.3	6.0	11.1	4.8
AT	1.0	0.1	2.2	3.0	1.0	3.9	1.5	3.1	3.7	5.3	3.0	2.4	10.5	1.4
BE	1.6	2.1	2.7	5.9	3.4	5.4	3.2	5.1	3.0	3.0	2.8	3.2	7.2	1.8
BG	35.1	7.4	31.0	35.1	43.5	24.7	26.7	16.6	26.1	44.0	33.1	44.7	47.7	34.0
CY	0.7	0.0	0.6	0.7	0.5	5.8	2.8	3.5	4.6	2.3	0.7	2.9	6.7	2.3
CZ	2.2	0.1	3.9	4.9	2.1	7.4	1.8	5.5	2.1	2.6	3.2	5.9	4.5	2.5
DE	2.4	1.1	4.9	3.1	3.7	3.0	2.4	4.4	2.6	2.7	2.1	2.3	6.7	0.9
DK	.5	0.1	0.5	1.6	1.0	0.5	0.8	2.2	0.4	1.4	0.7	1.4	2.5	0.6
EE	9.8	0.5	5.8	5.1	4.1	4.4	3.6	3.1	4.0	4.3	3.9	6.3	5.5	2.2
ES	0.6	0.3	0.5	3.1	1.4	12.1	0.7	2.6	5.0	3.8	4.4	2.4	4.3	1.3
FI	0.5	0.1	0.0	3.2	0.9	0.4	0.3	2.0	0.0	0.0	1.0	0.7	1.3	0.3
FR	4.7	0.3	2.1	5.2	5.5	4.9	2.0	3.1	3.0	3.0	4.1	2.0	6.7	1.1
GR	1.4	0.3	4.4	0.6	0.9	15.2	6.1	11.0	10.0	4.7	6.3	5.6	10.2	3.9
HU	17.0	0.9	12.4	22.0	5.1	17.2	12.2	6.0	8.9	28.0	11.6	17.9	23.4	13.0
IE	0.7	0.5	1.9	2.6	3.8	9.9	1.1	2.2	0.9	1.1	3.6	1.2	5.2	0.4
IS	0.5	0.3	0.6	1.3	0.5	0.4	0.1	0.2	0.0	0.0	0.5	0.1	1.1	0.0
IT	2.5	1.2	4.4	6.2	2.6	5.0	6.0	9.3	6.1	6.7	6.1	4.0	12.2	4.6
LT	8.6	1.3	8.5	14.1	1.0	11.4	7.8	4.9	10.2	9.2	7.3	9.7	14.8	6.9
LU	0.3	0.1	0.6	2.4	0.5	2.1	0.6	5.5	2.5	2.7	2.7	1.6	2.7	1.0
LV	15.1	5.1	10.6	24.4	10.6	11.1	12.0	4.1	13.9	19.9	12.2	18.8	22.0	11.6
MT	2.1	4.6	4.3	6.0	2.6	3.0	1.0	3.1	3.8	4.0	.9	4.7	3.9	1.5
NL	0.6	0.1	0.7	1.4	2.5	0.4	0.2	2.7	0.5	0.6	0.2	0.4	3.3	0.2
NO	0.7	0.0	1.1	0.4	0.5	0.7	0.3	2.0	0.1	0.2	0.7	0.1	1.9	0.4
PL	6.9	0.9	5.2	3.6	3.0	14.1	8.4	4.0	11.3	7.5	10.3	9.3	19.2	7.7
PT	4.3	2.1	4.7	14.1	4.6	14.8	12.0	12.3	11.6	19.7	11.5	7.4	26.6	10.8
RO	24.2	4.0	29.2	25.4	19.0	32.9	32.9	21.7	34.2	37.0	48.2	57.8	64.4	52.7
SE	0.1	0.1	0.1	0.4	0.9	0.2	0.3	1.6	0.6	0.7	0.4	0.6	1.1	0.2
SI	1.6	0.2	2.1	9.9	2.1	2.7	1.0	4.3	2.4	1.8	1.4	0.5	7.9	0.8
SK	10.2	3.1	13.5	12.9	7.0	13.1	9.4	6.9	7.5	11.7	10.7	11.3	6.9	6.3
UK	1.0	0.3	0.5	1.8	2.5	4.6	0.4	2.2	0.9	1.5	2.2	1.4	6.5	0.7

This table provides the basis for the European Child Deprivation Index. The table shows the distribution of the number of items lacking in each country. Over all countries 78 per cent of the children lacked no items ranging from 97.3 per cent in Sweden to 19.3 per cent in Romania.



**Figure 7.1:** [24] Countries by number of child deprivation items lacking ranked by 2+

A general problem with the items available relates to the degree of variance in the items for the richer countries (this also explain why the scale performs worse for these countries). This may reflect a technical measurement problem (we have no items that allow to identify the deprived children in richer countries) or the fact that there simply are few deprived children in richer countries.

## 8. CONCLUSIONS [20, 21, 22, 29, 30]

Innovation and competitiveness of education can contribute to overcoming socio-economic disadvantage of youth. But it may also perpetuate it. Inequity in education and training brings huge costs. These are often hidden, but are no less real. Ensuring equity of access, participation, treatment and outcomes must therefore remain a priority [20].

Brilliant children, fascinating students [20]- here it is a charming reflection of the power of intelligence and critical thinking. We talk about a real story, with revolutionary teachers. They show that all of us have the ability to increase the brilliant and fascinating students.

It is a first step of a new education which aims to develop the highest characteristics of each person: critical consciousness, responsibility, decision-making capacity and tolerance and, especially, the ability to dream and to action [22].

Our Intelligence Educational Units prepare executives, educators, doctors, psychologists, lawyers, academics and anyone interested to broaden the horizons of the mind, the emotional reactions to educate and improve quality of life [20].

The economic integration of Romania into European Union is important for the sustainable development of our country not only under the circumstances of traditional models of economic growth, but in the light of the increasing role of knowledge-based society and digital

economy, the core of which are the increasing contribution of intellectual property represented by large variety of intangible assets [21].

The narrowing of digital divide, technological gaps and R&D discrepancies between Romania and the developed member states of the EU is depending to a greater extent of promoting in our country the increase of the quality and the contribution that could be obtained by an increasing amount of intangible assets [21].

Teachers need better professional preparation and continuing development. This will improve education and training outcomes. Involving teachers and trainers in innovation and reform is also very important.

The way to follow is [20,21,29,30]:

- More education to raise the qualifications of young workers;
  - On-going training to upgrade skills to keep pace with changing needs;
  - Extension of the retirement age and removal of disincentives to work beyond the retirement age;
  - Policies and incentives to facilitate part-time work so that those who are unable or unwilling to work full-time can still participate in the work force.
- Implementing lifelong learning to achieve efficiency and equity;
- Near innovation and creativity, education is a key element of the knowledge triangle [22, 29, 30];
  - Education is fundamental to the knowledge triangle, to boosting jobs and to growth the economy.

Pre-Universities are the heart of the triangle. Centers of excellence which focus on teaching, research and knowledge transfer is vital. Much more needs to be done to enable higher education and business to work in partnership [22]. In the youth labor market; research and innovation need a new broad skill. The key competences, particularly those relating to entrepreneurship, creativity and learning-to-learn, must be developed in all systems and levels of education and training [20]. Reflections on an updated strategic framework for European cooperation in education and training should therefore start now. Give the crucial role of education and training to the Strategy for Jobs and Economic Growth.

## **9. ACKNOWLEDGEMENTS**

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## Video Games and the Internet and their Effects upon the Brain of Children and Adolescents

Gabriela Ionas<sup>a</sup>

<sup>a</sup>Teacher, Tudor VIANU, Computer Science High school, Bucharest, Romania

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### ABSTRACT

The purpose of this paper is to assess the influence of mass-media means (TV and video) upon adolescents. Especially of television and violent video games upon the human brain and to emphasize aspects of psycho-social psycho-diagnosis.

How does television affect the human brain? How does this affect child learning performance?

Television has several effects upon mental activity; some effects are positive and related to the learning performance.

Good quality TV programs brought much new information; These TV programs might develop linguistic and cognitive abilities.

### Addiction or dependence upon video games and the Internet

Addiction is an uncontrollable compulsion to repeat a behavior regardless of its negative consequences. A person who is addicted is sometimes called an addict. Addiction is a situation of dependence when life is highly subjective while the individual is focused on the repetition of a behavior to the detriment of affective or social investments. Addiction refers to the irreducibility of the experiences.

Psychological dependency occurs when a drug has been used habitually and the mind has become emotionally reliant on its effects, either to elicit pleasure or relieve pain, and does not feel capable of functioning without it. Its absence produces intense cravings, which are often brought about or magnified by stress.

The criteria of substance dependence are: watching TV for a long time and more often than intended over 4 hours per day, leave the TV on longer than intended, while repeatedly and unsuccessfully trying to reduce watching TV. The individual gives up or withdraws from an important event or from an activity in order to watch TV.

The term TV addiction may be applied to all forms of excessive behavior, as for instance drug, alcohol, narcotics caffeine, food, movement and gambling.

Researchers on television viewing emphasizes similar reasons of watching TV viewing television affects the brain and thus the child learning performance is affected as television has sever positive effects upon mental activity.

Good quality TV programs brought much new information, when the child is too young to select and be able to use it. TV programs might develop the child's linguistic and cognitive abilities.

Primary school children spend 25 hours a week watching TV on the average, while high school students spend 28 hours a week watching TV. In many households watching TV replace conversation.

Excessive stimulation of children leads to withdrawal, a passive attitude, caused by attention and listening issues. Studies state that the daily effects on learning are the following: television manipulates the brain so that it should pay attention by means of hearing and visual which affect the natural defense mechanic of the body. Television includes neutral passivity and the devotion to one task only. Television may have a hypnotic and addictive effect on the brain changing the frequency of electric cerebral impulses thus blocking the mentally active process and changing the frequency of the mentally active process. Vivid colors flashes and high audio volume separate the natural response of both the body and brain, thus modifying brain attention.

The brain is attacked not only the television images, but also by the effects television has on the human mind and body. The induction of alpha waves has a hypnotizing effect and motionless mind is hypnotized. Viewers often regard what they see on television as real even though the programs are filled with quick camera switches, rapid image movement, computer generated objects, and computer generated morphing and other technical events.

The effects of television viewing have on children lead to attention deficit disorder, which means that the impulses have no outlet. This may lead to excessive stimulation, which leads to hyperactivity, frustration, and short term attention. Irritability emotional isolation especially in the case of small children attracted by novelty and familiarity. This is the reason children like to listen to the same story. Children need predictability to learn how to understand the world which already seems confusing.

Children who during the first years of their life view too much television programs are passive learners, give up easily, they are not able to focus their attention on the task. Images from the glowing, TV screen are simulating, but the body cannot to respond appropriately. The body wants to react to the barrage of images, but it cannot do it. This sensory disorientation as the TV viewer is visually while remaining physically passive - confuses the mind.

TV programs which attract the child's attention upon the screen make him unable to focus upon the homework, or upon other activities.

When young children watch television, they cannot understand the meaning, the conflict, and what happens in the program me, even if they are interested in what they watch. They may understand the meaning, the conflict, and what happens in the program me when they are old enough. When small children cannot understand the program me, it becomes "boring" and their attention is attracted only by "special effects". They can't focus their attention and become withdrawn.

Then they cannot pay attention to the classroom activities, they are bored and they start thinking of something else. Receptive skills, reading and listening are affected by inducing passivity. Expressive skills as thinking organization are in danger. More complex concepts lead to a quicker cerebral activity, while simpler concepts induce slow alpha activity, usually associated with the lack of cerebral activity. When later the child watches confusing information, the brain responds entering in the alpha activity area.

When the brain gets used to the video games, mental abilities weaken as the lack of active implication leads to an undeveloped brain.

### **Effects on the development of senses**

Despite its advantages, too much television can be detrimental: too much screen time can interfere with their activities. Viewing television, in moderation, can be a good thing: preschoolers can get help learning the alphabet on public television, grade scholars can learn about wildlife on nature shows, and parents can keep up with current events on the evening news.

Children who actively play are healthier than the one who passively watch television for more than 2-3 hours a day. Normal sensorial experience plays an important part in keeping a balance between mind and body.

Humans are not designed to look at a flat screen for long periods and this is especially the case of children or infants whose vision is developing and it is believed visual skills are being damaged while watching TV eyes are motionless and devocalized to see the entire screen. The eyes have to move in order to stay healthy. Sight matures after 12 years of age.

People who consistently spend more than 4 hours per day watching TV are more likely to be overweight.

Children who view violent acts are more likely to show aggressive behavior but also fear that the world is scary and that something bad thin as will happen to them.

Parents should control the use of TV and teach children that viewing TV is for occasional entertainment, not for constant escapism.

Radiations lead to a substantial decrease of the amount of X rays, obesity and cholesterol increase are also related to viewing TV.

A number of vital tasks carried out during sleep help maintain good health and enable people to function at their best. Sleep needs vary from individual to individual and change throughout your life. Not getting enough sleep can hurt memory performance, health, and mood.

Dream and dreaming is a psychological psychological necessity, after watching violent images on the TV screen dreams might become nightmares.

## **Cyberspace video games and the Internet**

The term cyberspace was invented by the futuristic writer William Gibson. In the novel, *Necromancer* shaped the concept of the Internet. Even if the „space behind the screen“ may be made to access information stored to be able to send messages, to meet people all over the world, to take part in cultural events. This is clearly a figurative space depending on the way it was created. Thus one is able to understand William Gibson's statement that Cyberspace is the "space" behind your computer screen.

Cyberspace in the Gibson novels was also populated by disembodied Artificial Intelligence systems, which had agendas of their own. "Cyber" (a trade name for computers which has become generalizable to all things related to computers and "space": outer-space, inner-space, Euclidean-space, non-Euclidean-space, and so on. Mass-media communication means conveying information to qualified persons worldwide. Mass media includes the Internet media because individuals now have a means to exposure that is comparable in scale to that previously restricted to a select group of mass media producers.

## **Video games and the computer**

The Internet addiction disorder has not yet been added as an official diagnosisHYPERLINK "<http://www.minddisorders.com/Del-Fi/Diagnosis.html>" to the DSM. The following is a set of criteria for Internet addiction has been proposed by addiction researchers. The signs of Internet Addiction are: loneliness, preoccupation with being online. Often the person will think a lot about his last session online wanting to repeat it, the addict feels bored, bad tempered, upset, grumpy, restless, moody, depressed or anxiety-ridden when he is unable to be on line. When online, or after being an online a person may feel a sense of manic depression, guilt, anxiety, or hopelessness. The addict puts a job, relationship, or other responsibility at risk in order to continue spending time online. For example, a person may cancel a date, miss a family dinner, or forget a work meeting because of their computer time. the Internet which he needs to use more frequently to get satisfaction from the activity, may be the only activity that calms down an addict .

An addict becomes angry when someone needs the computer or refuses to share time and he cannot stop getting online, no matter how hard he tries, he daydreams, is quiet and shy and does not enjoy being with other people, he is introverted and neurotic, compulsive, and lying to friends and family about the time spent online. Both the television and monitor screen have a hypnotic action on the brain.

While viewing a television programs, the right hemisphere is twice as active as the left one, which is a neurological anomaly.

This deleterious frontal lobe effect appears to be the results of the camera-switching work in most videos and other programming. The technical problem with the filming technique is referred to as rapidly changing scene of reference."

The hypnotic action of television pushes the brain into an electric alpha state and undermines the cerebral beta brainwaves rhythm, with low amplitude beta with multiple and varying frequencies which is often associated with active, busy or anxious thinking and active concentration.

While viewing television, the right hemisphere is twice as active as the left; a neurological anomaly, as brain activity switches from the left to the right hemisphere.

Viewing television generates alpha brain waves are a sign of relaxed activity in the human brain. Alpha brainwaves are the dominant brain wave activity when the body and mind are able to relax. When practicing meditation, yoga, or even felt relaxing the individual experiences alpha brain waves while the brain needs beta brain waves. Often associated with active, busy or anxious thinking and active concentration.

Both the computer and television stresses the brain inhibiting the activity of the left hemisphere of the prefrontal cortex and weakens communication. The hemispheres are linked by the corpus callosum, a very large bundle of nerve fibers, and also by other smaller commissures, including the anterior commissure, posterior commissure, and commissure. These commissures transfer information between the two hemispheres to coordinate localized functions

These two parts of the cerebrum, divided into two hemispheres, the left and right hemispheres, separated by a deep groove down the center from the back of the to the forehead. These two halves are connected by long neuron branches called the corpus callosum. The screen opens the subconscious inscribing the image into the subconscious.

The reading of a text on the screen is not the same as playing an electronic or computerized game played by manipulating images on a video display or television screen.

During video game the images, icons, pictures change quickly, the gamer's the instincts and emotions change and are strong.

Valdemar W. Setzer of The Computer Sciences of the Sao Paulo University got to the conclusion that the use of computer in the primary school level when thinking, the representation of reality develop, the use of computer deforms the child's thinking making him think like a machine by means of a commands and instructions.

The user's thinking is restricted to the computer interpretation, which is operating at the same mental level and strictly formal. The purpose of children's education is the slow development of logical and objective, creative and free thinking skills so the individual should be creative at adulthood.

Thinking should not be become overloaded with too early with rigid forms like the ones required by the computer which in turn require enormous control. Video games appeal to strong feelings which trigger aggressiveness, violence and challenges. Video games require a small number of less ample, movements and it can be said that Video games convert. Gamers' activities are highly specialized. The skills they acquire cannot be used in real life. The points the gamer has won depend on reaction speed.

In the process of understanding, making a judgment, reasoning, and other forms of dynamic thinking to reflect the objective reality of some rational knowledge. Only by means of logical thinking, can one achieve the specific targets, and grasp the nature of the provisions to acquire further understanding of the objective world.

Logical thinking is a slow process. The gamer must react without thinking; his reaction is automatic and a reflex action, something that he does without thinking, as a reaction to a situation,

Children play video games more success and easier as their thinking and own conscience are not yet formed. Adults do not eliminate thinking so easily when they have to reflect upon action.

Researchers made use of the DSM-IV (American Psychiatric Association, 1994), which included concepts like: control loss, time spent as loss, time spent playing games, intents not to play and culpability. A close connection between viewing television and playing aggressive video game and the addictive behavior has been shown. The 5 criteria of TV addiction are: TV viewing a long time, TV viewing lasts longer and lasts longer than intended, making repeat ate but unsuccessful efforts to reduce viewing, giving up, retiring from important events or occupational activities to be able to view the TV program.

As is the case with substance abuse the addicts feel: mental instability, confusion, boredom, senseless day dreaming, introversion, neurosis and neurasthenia. Television addiction may

make the average person spend about three hours a day sitting in front of the television set; television addiction might lead to conflicts tense family relationship.

Pathological video game characteristics are: frequency, duration of game, spending an unusually large amount of time using viewing television; finding oneself using television more often than intended; thinking about reducing the use, and are making repeated unsuccessful attempts to reduce it; giving up social activities to use television, and reporting withdrawal symptoms when one does achieve stopping the use, borrowing or selling goods to be able to play, while the individual is aware of an issue.

Drug dependence is a physical or psychological state in which a person displays withdrawal symptoms if drug use is halted suddenly; this can lead to addiction.

Drug dependence is the repeated use to get to a certain state, sometimes drug overdose may appear, when of a drug or medicine in an amount that is higher than is normally used.

Excessive Internet use has all the characteristics of addiction.

Internet addicts suffer from such as depression and anxiety-related disorders and often use the fantasy world of the Internet to psychologically Internet addicts are preoccupied with spending too much time online and watching television.

The American psychologists and sociologists researched the causes of drug use during the 60s when a shopping frenzy of television set shopping. In the 60s most homes have only one television sets and everybody wanted to own a TV set.

The generation of the 60s is the first generation which grew up watching TV and thus differing from the generations before them.

The transformations which have taken place in the brain and the conscious horizon while watching TV are similar to the transformations induced by drugs.

The years spent in front of the screen a brain washing activity or "mind control" offers a whole generation the prerequisites for. Other experiences which generate other similar mental experiences.

## Conclusions

Substance abuse and television viewing for a long time have similar effects on the human brain and body.

Viewing television requires little concentration offering electronically images and thus encourages passivity, while reading requires attention, thinking and visualization.

How much impact television has on children and adolescents depends on many factors: how much they watch, their age and personality, whether they watch alone or with adults, and whether their parents talk with them about what they see on television.

Students who get good marks watch less television or not at all. Students who watch television for more than two hours a day have understanding issues. Hearing, sight, radiation effects, artificial light, obesity, sleep deprivation affect reading skills, affecting creativity, imagination, and the image of reality, social development also affecting the perception of reality.

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## Communication ...where to?

Ciobanu Mihai Angela<sup>a</sup>

<sup>a</sup>*Physics Teacher, Economic College "Partenie Cosma", Oradea, Romania*

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### ABSTRACT

In this paper I intend to compare, on one hand, the direct communication between me (as Physics teacher) and my high school students, and the distance communication between me and my evening-class-students, on the other hand.

Of course, this latter form of communication is not exclusive, the evening class students come at least for two tests and for the mandatory work per semester, but we communicate mainly by e-mail; I am trying to help them to keep their jobs, but also be able to complete their secondary education. Their employment program is generally extended, many of them are parents and I know it is not realistic to claim the same good frequency as I claim for my high school students.

Therefore, at their proposal, I accepted this way of communication and now I am interested in this study to see which are its benefits or if there are any benefits! I want to see if they are able to learn some main specific scientific information, but also if they are able to use them in their everyday life.

Direct, classical communication showed its advantages in education for ages everywhere in the world: our society has molded many outstanding people in all scientific fields, through an education system based on this type of communication. It allows a real-time dialogue between teacher and student, a good inter- and intra-personal knowledge, depending on the degree of involvement of both main partners, but also other partners involved (family, community, society, etc.).

Now it is useful to analyze the benefits, if there are any, of distance communication, of remote collaboration, educational sites as Wikipedia, blogs, eLearning Platforms, etc.

### Introduction

We live in the age of computers and the education system is influenced by the characteristics of the society. Our country was isolated till 1989 from technological and computer achievements, but in the last 23 years we witnessed the exponential growth of computer equipment in schools as in entire society. We also witnessed the increasing interest of students and their parents in Informatics profile over other profiles. Romanian curriculum encouraged this trend and introduced in school education -particularly- many disciplines, for example:

- in preschool education there are *Optional activities* and *Extensions*;
- in primary education there are *Optional Subjects*;
- in high school education (direct or progressive route) there are different subjects for different profiles (for example *Information and Communication Technology*).

## Communication

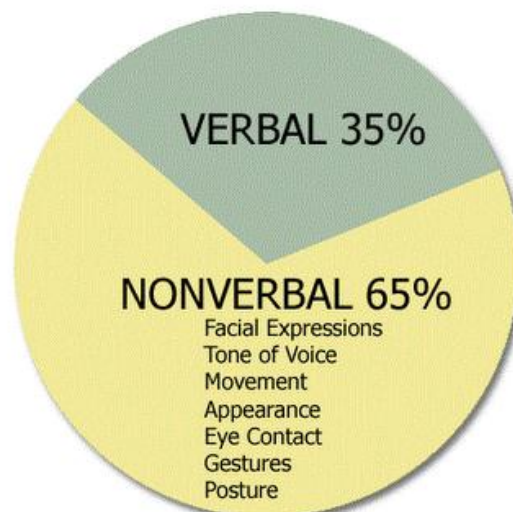
*Communication* means all the actions that lead to the transmission of information (messages, news, signs, gestures, text) between two people. This communication is based on a language, a system of speech (verbal) but it can be done on the basis of texts (written communication). Communication is both verbal and non-verbal (Figure 1).

Verbal communication is not made only by words but also the tone of voice, the magnitude and location of breath, change in skin coloring (especially of the facial), body attitude of the partners involved in communication, etc. This type of communication is called *direct communication* and it aims expression and transmission of thoughts, feelings, desires through a system of symbols discovered / invented by man. In other words we speak only appealing but the vocal cords, we can communicate with the entire body and direct communication is more expressive in relations established with the caller (clothing worn, the space that you control with distance at which to place our interlocutor, and others).

In summary, we can say that this type of direct communication involves three components:

- verbal communication by word, oral or written, specifically human ;
- para-communication by vocal features that accompany the word, such as voice characteristics, timbre, tone, loudness, rhythm, flow record, intonation;
- non-verbal communication through gestures, position, movement, facial expressions, appearance (clothing, accessories, jewelry, clothing colors and decency).

In order to stop the sense of interest in this work, *didactic communication*, we must say that the communication is done through education and communication, this process being essentially an act of communication [1].



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**Figure 1:** Verbal and nonverbal communication  
(<https://gbeaubouef.wordpress.com/tag/cloud-erp-pains/>)

Direct communication is a classical one and it showed its advantages in the history of education, Romanian or not: human society had made a lot of great men in all fields of science through the education system based on this type of communication. It enables real-time dialogue between teacher and student as well as a good knowledge of inter-and intra-personal, dependent -of course- on the degree of involvement of the two partners (teachers and students) mainly, but also other partners involved (family, community, society, etc..). Formal education process is based both in direct communication classes and the related activities. The advantages of this type of communication are [2]:

- continuous feedback;
- different embodiments: oral, in writing, internal language;
- allows the transmission of information of varying degrees of complexity, systematic, and so on, depending on the interlocutor;



- show the ability of expression and thought of the transmitter;
- transmission efficiency through explicit verbal content;
- transmission efficiency through nonverbal communication,

While its disadvantages are:

- lack of expression if it is not accompanied by para-verbal and nonverbal means;
- impossibility of performing it without direct contact between people or between distant people (hence the necessity of so-called remote media analyzed below);
- difficulty in expressing emotional states.

The actual process of education is characterized by a marked and rapid decrease in the importance of direct communication for remote communication, especially in terms of teaching and learning methods, assessment methods are those that are still using mostly direct communication.

Reasons for this are [3]:

- computerization of society as a whole, our education system cannot remain isolated or unaware of modernization;
- emergence of new forms of education;
- alignment with European standards worldwide.

### **Communication at Day Classes Vs. Evening Classes**

In this paper we tried to make a comparison between direct communication between myself (as Professor of Physics) and high school pupils, on the one hand and the remote communication between me and evening classes students, on the other hand. Of course, this latter form of communication is not exclusive, my evening school students attending physics classes to be evaluated at least (the two required tests per semester and semester thesis), but my communication with them is mainly via instant messaging and / or e-mails, I try to help them retain both their job and to complete high school.

Their program of work is generally prolonged or messy one, many of them have families to support, we have seen that it is not realistic to have 100% claim their presence (as we claim day classes students).

Therefore, we accepted the proposal students to communicate at a distance and we did this study to see the benefits of this new means of communication (remote) regarding the assimilation of scientific information and on their training as future useful people in society (because, in my opinion, the teacher's role is to shape the character of the student, not only transmit knowledge and teach them to think).

I taught a few lessons with eLearning platform implemented in the computer lab of the school unit, irrespective of time spent entering data to identify students for one hour course, teaching effectiveness (as measured by final test results) was not greater than these after the classes of classical teaching. Students have learned the content being taught by notes or using the Internet (type educational websites Wikipedia, blogs, etc.), depending on the capabilities of each student. Evaluation was performed at fixed dates (thesis semester) and at hours when they were at hours (tests), and additionally, in exceptional circumstances (maternity, accident involving hospitalization, etc.), the evaluation was done on essays, and portfolios of projects. In addition, these students have not used the homework.

The conclusions I reached after two years of using this type of communication to students of evening classes, conclusions supported by the learning outcomes of these students are:

- ✓ evening school students have great difficulty in understanding the physics curriculum content, especially those who use the exclusive method of Internet information (of course, compared to students from day courses), which means that this method is ineffective in teaching and learning;
- ✓ students who attend classes, although better understand the phenomena explained directly by the teacher (they have the opportunity to ask questions and get answers), face weight expression of knowledge, due to insufficient time spent learning and accumulated gaps in previous classes in math and Romanian (Physics has as main tools in math formulas, and language in describing different phenomena);

- ✓ students from day courses that have a high degree of absenteeism but still teach after their colleagues present notes in class do better in school than those from the evening classes, which demonstrates once again the inefficiency of learning through distance communication;
- ✓ students generally do not have the ability to sort information on the Internet and in this case it is very useful communication (direct or remote) with the teacher, so that he can guide the student in choosing the appropriate and credible source of information, but generally students not aware of the need for guidance of a teacher, their class-work presents some wrong learned information, so totally unsatisfactory outcome assessment, both students and teachers;
- ✓ remote communication is required when direct communication is almost impossible (in case of hospitalization of the student, for example) or when it is used to guide, advise the student (for example in the development of projects, in the student discussing personal problems, etc..).

In this respect I can confirm the utility's Messenger (for personal) and educational mails (they are an extension of the form classes, they increase the possibility of the student's education by other teachers and not only the teacher-tutor);

Remote communication by phone, mail and instant messaging is especially fruitful for former students, allowing contact with the teacher (and thus continue the educational process) and after school.

Lately teachers are encouraged to use communication methods based on IT technology (Microsoft programs, for example) to get "performance" students. First see what "performance" means by DEX (Explanatory Dictionary of the Romanian Language):

"Result (very good) obtained from someone ... special achievement in a field of activity"

We must conclude that student performance can be considered both note 5 for a student with intellectual disability (a student in a low level school), an Olympic student in Physics, self taught one... but Olympic student with additional training, some in early childhood, home and / or at a school with teachers integrated in the Olympics, which elaborate topics for these competitions! But what big differences there are between these students!

"Performance" is a highly subjective reality and is not worthy of being so desired, sought and praised. After all, child training involves so many factors that I think it would be more realistic to get citizens with common sense rather than the Olympics! Especially the times in which we live "our student is our master" and adults are manipulated and controlled (both parents and teachers!) by children (see Child Rights vs.. Teacher/Parent Rights and the book of Josh McDowell & Bob Hostetler, *The New Tolerance*, Aqua Forte Publishing, Cluj-Napoca, 2006).

Generation adults suffer from some kind of amnesia and forget the benefits of Christian education based on moral values, clearly and strongly promoted (education that discourage violence or aggression, and who was -obviously! – "student-centered" because the student was its beneficiary, i.e. who was using it). The consequences of this are obvious blackouts: school results increasingly weaker, student anti-social behavior is increasingly, professional conduct problems reported increasingly often to teachers (but not only to them, if we relate to society; after all it is unfair to ask from teachers only moral values in a society that discourages moral values through all media), etc.. Although we are aware of the ravages of libertinism, of adverse consequences of post-modern psychology, there is no official action at the highest and the number of teachers who are trying to help students become literate graduates (who knows how to read and count) is increasingly lower. These teachers are faced not only with students' disinterest but also with parents' disinterest in the educational process. It's a pity that although teachers have implemented aberrations of the current system, they are the only scapegoats for the increasingly weaker of our graduates ... Many teachers have watched the efficiency of modern methods in teaching and learning and they have noticed any improvement in intellectual level, in performance at the students who have benefited from modern means of learning, e.g. interactive whiteboards, flip charts, video projectors, etc.

The teacher is confronted with different situation: the teacher in a class with students who have learned until tenth grade (for example) decide to let students use the computer's pocket, but the teacher who has students who cannot do simple calculation cannot do this, but must use items that assess the correctness of calculations. Obviously, the work of the latter is heavier than the first.

Therefore is not appropriate to praise some communication methods over others, but to seek balance and track the purpose of education: the graduate, of any level may be, to reach a minim of skills: speaking, reading and calculate correctly.

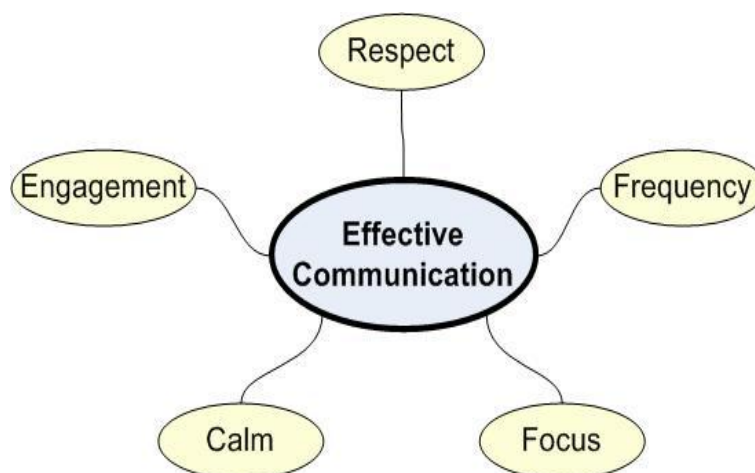
## Conclusions

Consequently, although many students prefer for remote communication, although the ministry encourages this type of communication without having a study to prove its effectiveness (compared to classic type of direct communication), from my own experience and from the experience of many colleagues, I have concluded that remote communication is not more efficient than direct teaching communication. As shown surveys and trade specialists, direct communication is more efficient both other areas than education.

Remote communication is an alternative to the exceptional cases in which direct communication cannot be applied. The remote communication is efficient in further education students and graduates but not in the teaching-learning process as curriculum (at least in physics).

So I believe that we, the teachers, we must be critical of the new communication methods, methods of teaching, learning and assessment, do not indiscriminately adopt all that is new or fashionable.

My teaching experience showed me that real communication involves emotional factors rather than intellectual or otherwise (Figure 2).



**Figure 2:** Effective Communication  
(<https://justinhay.wordpress.com/tag/normalization/>)

Of course, it is not desirable to the other end, the rejection of a new; as outlined above it is necessary to have judgment to choose effective and appropriate methods, from case to case, either following their own convenience not recommendations of other (even if have leadership positions), but the benefit of students, thereby realizing their ability to successfully pass the baccalaureate exam and their successful examination in various faculties. I do not deny the important role of this type of communication after graduating from high school, in higher and academic education, where the individual is called to investigate and bring his original contribution.

Either we are witnessing a clear decrease in the level of preparation of our students for these exams although the degree of difficulty of exams is not higher now than in the past, an increasing number of students with school failure, failure of which superior forums consider teachers responsible!

Of course, not just one factor (type of communication teaching) is responsible for lowering the level of preparedness of graduates or students' school failure, but I think that, among other factors, this factor encourages the student:

- intellectual convenience (e.g. essays taken from the Internet with copy-paste);
- lack of motivation in learning (note taken on papers or projects is-usually-higher than the scores in tests or oral assessment, which encourages student not to learn, not to practice problem solving, etc.);
- unconscious intellectual theft, if I may say so, the fact that the student takes someone else's work papers or projects and often do not realize that he calls the teacher a note (which in most often receives) for work that he never performed it;
- wrong mentality that work (teaching) does not benefit or, at best, provide the same benefits as not- work; to be aware that this mentality will characterize graduate in his future family and in his job, as a citizen in the community! This mentality is in the detriment of the entire society!

We should not forget that education "has to do with tracking and obtain the truth, (...) with the ability to search and work with evidence, with the ability to evaluate information and manage conflicting views" [4], and not transform it into a method of trying to get people (students in particular) to feel good and have good self-esteem at the expense of their achievements and thus the price of self-destruction.

The methods of teaching and learning using computer, video projector, educational software are increasingly used in pre-university education because students nowadays have an emphasized attention deficit. They have no individual intellectual work habits, pencil and paper, but are captivated by the screen where they can view pictures without thinking them only record more or less consciously. Of course, this can be seen in the increasingly poor baccalaureate preparation and college graduates. I think I am realistic when I say, after 31 years of experience in pre-university education, that members of humanity will be increasingly incapable of thinking, in other words more easily manipulated... unfortunately...

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