

**Miscellaneous****The E-Learning Limits**

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**Abstract:** The phenomenon of knowledge is crucial for the existence of humanity. During centuries the learning activity has know a large variety of manifestation. In our times, the relationship between the level of people's education and the welfare is in a direct link. In the paper we have prove that between the number of prestigious universities of the world and the gross domestic product of that countries is an important correlation. After we have discuss the main causes which guide the people to a permanently learning all the life, we have argue that the e-learning is a viable solution only for continuing training, at least in our times.

**Keywords:** learning; computer; GDP

**JEL Classification:** D83; L86; M53

**1. The Phenomenon of Knowledge**

The phenomenon of knowledge is its own the majority of living organisms. If in the animal kingdom, it is manifested at the level of adaptation to environmental conditions or when setting the strategies of survival, to the human level, it acquires new aspects, distinguish the species, mostly for the better, of the other.

Knowledge is a process that defines, fundamentally, the human spirit, indicating that a continuous reporting of information to the general vaults, retrieving, adapting and personalized, experimenting and evaluating the knowledge generated by other like-minded people.

Unlike other living organisms, human knowledge involves an act of socialization, conducted by mostly dedicated spaces directly, arranged inside which the set of knowledge is transmitted uni or bi-directional action, most often, cooperation but sometimes conflicting situations.

Within the framework of knowledge, it is manifesting four separate stages:

- identification of the actual problem that wishes to be solved;

- preliminary knowledge lies in searching for identifying, understanding and explaining of the causes of the problem;
- knowledge itself consisting of the acquisition of knowledge necessary to solve the problem;
- recovery of the stock of knowledge accumulated to solve all or part of the problem.

From the point of view of the "materialisation" act of knowledge, it can be concrete or abstract. If in the concrete process of accumulation of knowledge, practice or intuitive, experience has a predominant role, thus enabling faster or slower in the acquisition of knowledge, in the context of abstract acquisition, it uses a set of rules and procedures specific to formal logic, which allow, in the final, the argumentation for the possibility of solving a concrete problem.

If in the cultural knowledge act, the subjective or emotional factors are determinant, in the framework of scientific concepts, it is worked with non-subjective notions, mostly highly formalized, such as mathematical language.

The difficulty of understanding and, obviously, for the application of the latter, leading in many cases to not pass over the problems encountered.

## **2. The Quality and Quantity of Knowledge – Primary Factors of Economic Development**

At the end of the first half of last century, the Austrian economist Friedrich August Hayek, the future laureate on the 1974 Nobel Prize for Economics, launches the idea of a new approach to economic phenomenon.

The central idea of Hayek was that of division of knowledge between members of the community. How each individual is the holder of a limited quantity of economic knowledge, any process requires cooperation of becoming more holders of information. Coordination of economic activities becomes, in this point of view, a truly critical issue (Beaulier, Boettke, & Coyne, 2010, pp. 209-223).

The concatenation of the information held by the actors what faces on the market seems, at first glance, a problem without a solution. If it is impossible that the existence of an omnipotent authority to coordinate and simulates knowledge towards obtaining optimal well-being, then it is recommended that each individual to act towards the purchase of information from other holders in order to improve their business results (Işan & Miron, 2005/2006, pg. 253-274).

As the economy becomes increasingly globalized, the holders of knowledge are the power of increasingly high on the world market.

To illustrate this phenomenon, we studied the correlation between the two indicators relevant for front approach. Thus, a first set of data, refers to the number of universities in each country located in the Top 500, and a second size of gross domestic product of these countries (table No 1). We have ordered descending these sets of data, ordered by number of universities in the top 500 and we have determined the correlation coefficient of ranks, using the formula:  $\rho =$

$$\frac{n \sum_{i=1}^n x_i y_i - \sum_{i=1}^n x_i \sum_{i=1}^n y_i}{\sqrt{n \sum_{i=1}^n x_i^2 - \left( \sum_{i=1}^n x_i \right)^2} \sqrt{n \sum_{i=1}^n y_i^2 - \left( \sum_{i=1}^n y_i \right)^2}} \text{ where } x_i \text{ are ranks as TOP 500, and } y_i -$$

the level of GDP. We have obtained:  $\rho = 0,57$ , not very big, but expressing increasing dependence of the two indicators.

We can conclude that a high level of education, so the quantity of transmitted knowledge, generates a high level of economic well-being.

Also, in a series of economic research, investigating the annual growth rates, it was found that more than 50%, responsible for this phenomenon is the high productivity of the work (Isaksson, Hee Ng, & Robyn, 2005).

When the influences of the increase of capital are removed, the more efficient use of manpower and influences due to new technologies, what remains is increasing the skills and knowledge workers (Işan & Miron, 2005/2006, pg. 253-274).

Even if it is difficult to quantify knowledge in increasing intake of total productivity, it is obvious that either intelligence incorporated into new equipment, be as transparent as evidenced by increased skills of employees are based on an increase of knowledge's level.

### 3. Continuing Training in the Context of the New Economy

The scientific and technical progress to whose development tremendously witnessing continuous adaptation, complains to the requirements of the economy, transforming the human society in a knowledge society, in which the primordial become ideas rather than the use or exploitation of cheap labor's skills workplace<sup>1</sup>.

The production cycles becoming increasingly shorter, the requirement for innovation increases with the globalization of the economy and enhance the character of competitive markets.

<sup>1</sup>Linden T., Patrinos H.A., *Lifelong Learning in the Global Knowledge Economy: Challenges for Developing Countries*, World Bank Report, [http://www.techknowlogia.org/TKL\\_Articles/PDF/476.pdf](http://www.techknowlogia.org/TKL_Articles/PDF/476.pdf)

At present, the only way to resist in this fierce competition is lifelong learning, which involves either a new specialization of the individual in the face of new challenges in scientific or economic requirements, either approach becoming more deep knowledge of a segment.

Lifelong learning can be made either within the formal specialized institutions (schools, universities etc.) non-formally (at work or at home) or informal (gathering information from members of the family or those of the community).

Each frame of learning is addressed to a specific life stages or a domain of distinct action. Thus, rigorous learning within the education leading to the classic consists of a set of conditions limiting access to any age of the individual. Thus, the time (more or less) spent in the educational activities, conducted at fixed hours, involve a consensus of the mass of individuals which constitute the study group, aspect difficult to achieve in terms of their participation in a productive activity.

Each of the forms of classical education (daily, on evening, part-time) has his disadvantages. Thus, the daily education is addressed mainly to young ages, who work not in a productive activity.

The evening education or that in part-time, involve participation in teaching activities in a timeframe set, located either at late hour of the day or in weekend, what substantially diminishes the rest time and limit the learning capability.

Informal learning is rather one of survival, in the sense in which individuals shall inform each other of changes in economic or social life.

The non-formal education becomes so, more present in the training of the individual.

From Eurostat statistics for 2009 (table No 2), relative to continuing training, it is observed a large percentage of the population in the Nordic countries of Europe, engaged in a structured training framework of education (figure 1), with a maximum of 31.6% for Denmark, followed by Iceland with 25.1%, Switzerland-24%, Sweden – 22.2%, Finland – 22,1%. In contrast, lies for the most part, countries learned from former socialist camp which, with the exception of the Czech Republic (6.8%) and Poland (4.7%), Lithuania (4.5%), are situated around the threshold of 3% (Macedonia – 3,3%, Slovakia – 2.8%, Hungary-2,7%, Croatia-2,3%). An exception that non glorify us are the two countries located at the bottom of all classifications on the economic indicators: Bulgaria (1.4%) and Romania (1.5%), well below the average 9,3% of the European Union.

Relative to the distribution of employment by sex in some form of continue education, we note (table No 2) again large percentage of men (Denmark – 25,6%, Switzerland – 22,8%, Iceland – 20,4%, Finland – 18,5%) relative to the average of the European Union – 8,5% and to the opposite pole Slovakia with 2,2%, Romania and Bulgaria with 1,3%. The female population is include the most in continue

education, with an average of 10,2% in the European Union and with obvious maximum in Denmark-37,6%, Iceland-30,0%, Sweden-28,5%, Finland-25,9%. Romania and Bulgaria share the latest places with 1,6% and 1,5% respectively (Figure 2).

Overall, it is observed that women are more engaged in the process of continuing training than men (with the exception of Germany – 7,7% from 7,8%, Croatia and Turkey by 2,1% to 2,4%). It is interesting that by reporting the percentage of women to those for men, in the first eight places are located seven Nordic countries (except making Slovakia): Sweden, Latvia, Lithuania, Estonia, Iceland, Denmark and Finland (with ratios ranging between 1,92 and 1,40).

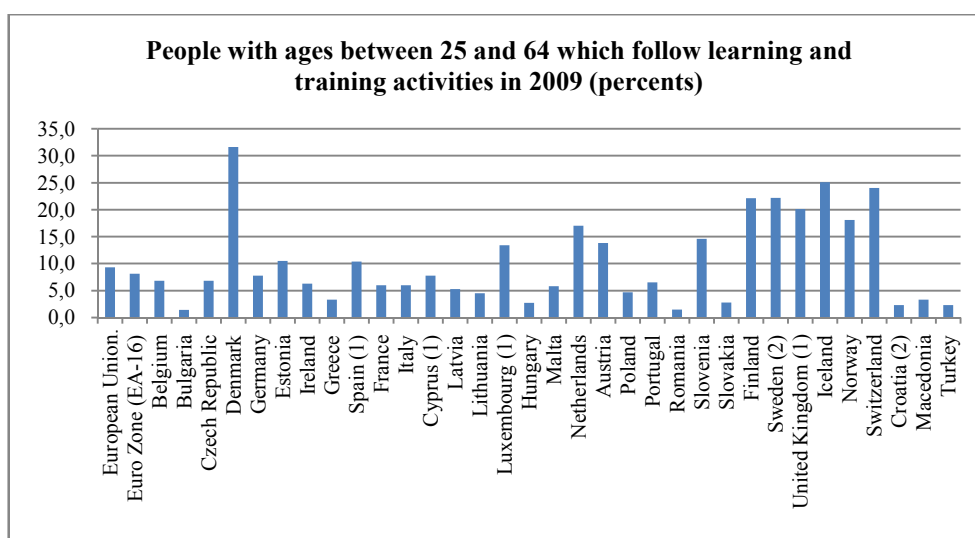


Figure 1

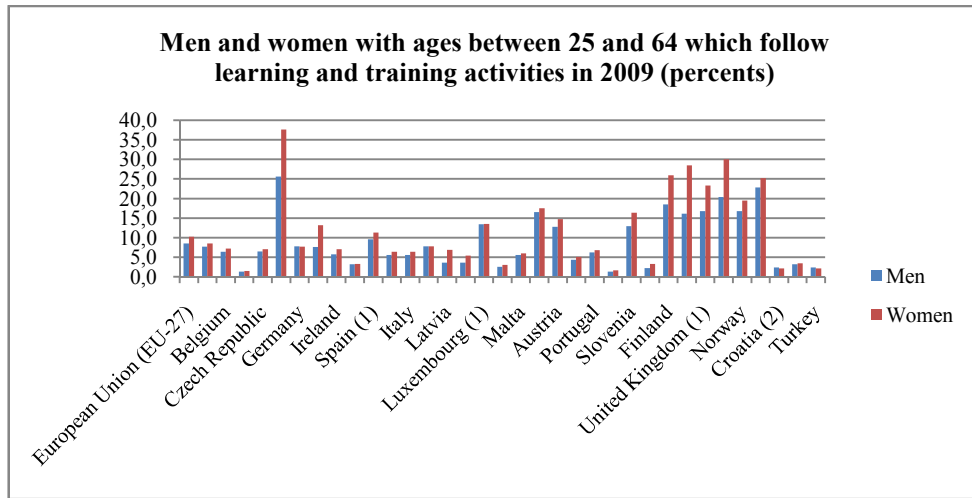


Figure 2

Interesting for this analysis, is to inquire in to the reasons leading to the choice of forms of lifelong learning. Analyzing data from the table No. 3, shows that the desire for new, for information relative to interesting topics for the individual, lies as share in the learning motivations (figure 3) between 82% in the case of the United Kingdom of Great Britain or 80,5%-Portugal and values less than 40% in the former socialist countries (Bulgaria – 38,5%, Slovakia – 34,6%, Estonia – 21,1%, Slovenia – 12,5%, Poland – 7.6%).

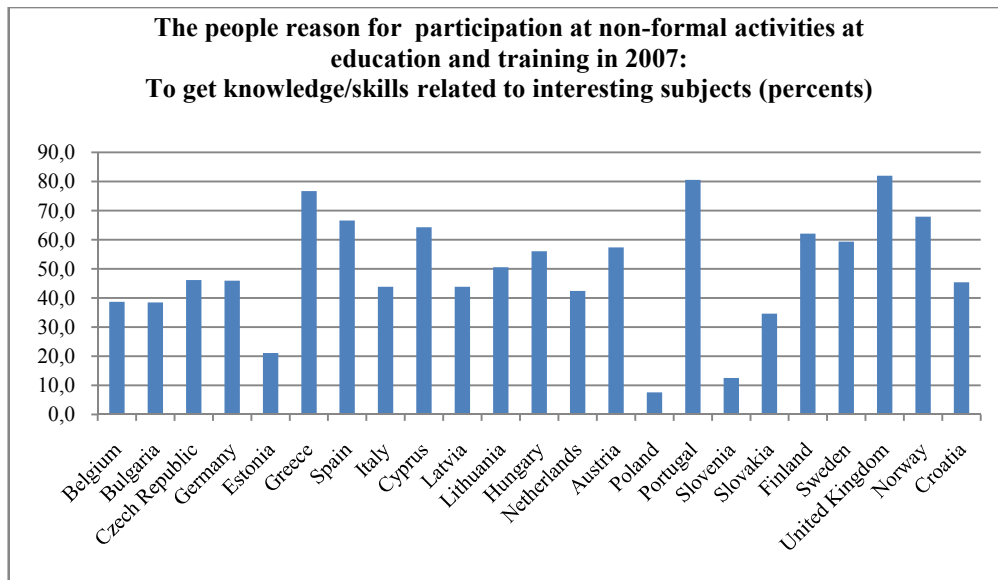
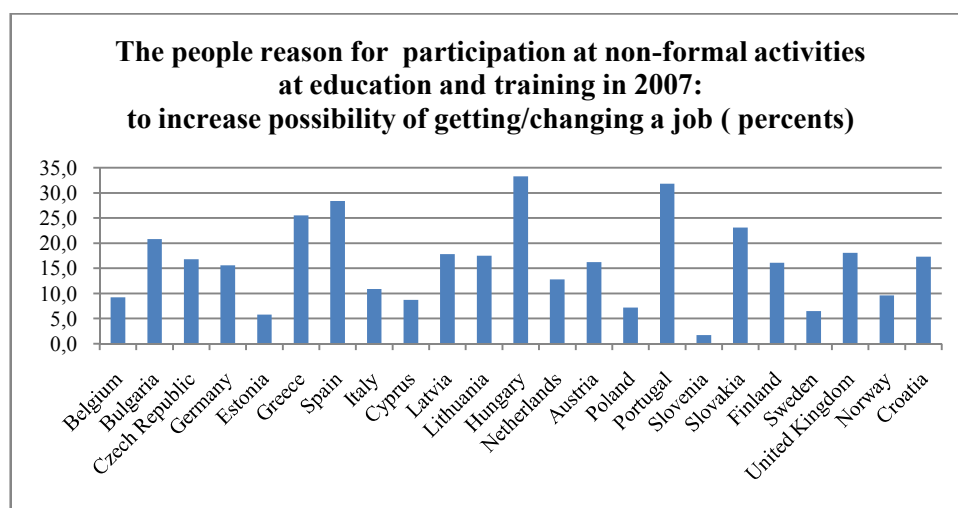


Figure 3

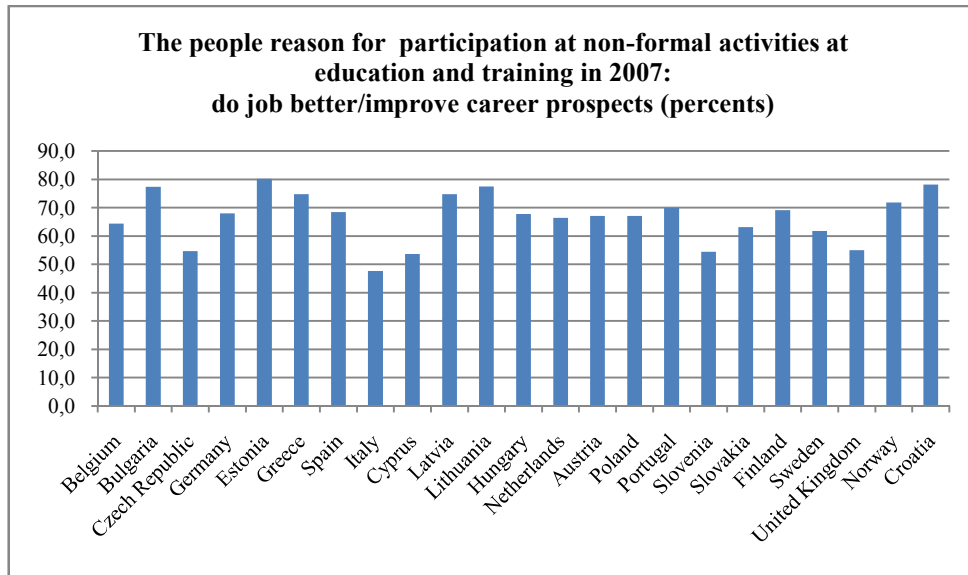
On the other hand, in countries with economic difficulties, it is observed (Figure 4) that the predominant reason is to increase the possibility of seeking a job or change it on the current one, in the hope to achieve a standard of living better than at present. Thus, 33,3% of citizens of Hungary, 31,8% of those of Portugal, 28,4%-Spain, 25,5%-Greece, 23,1%- Slovakia and 20,8%-Bulgaria hopes that by purchasing new knowledge to exceed the current condition.



**Figure 4**

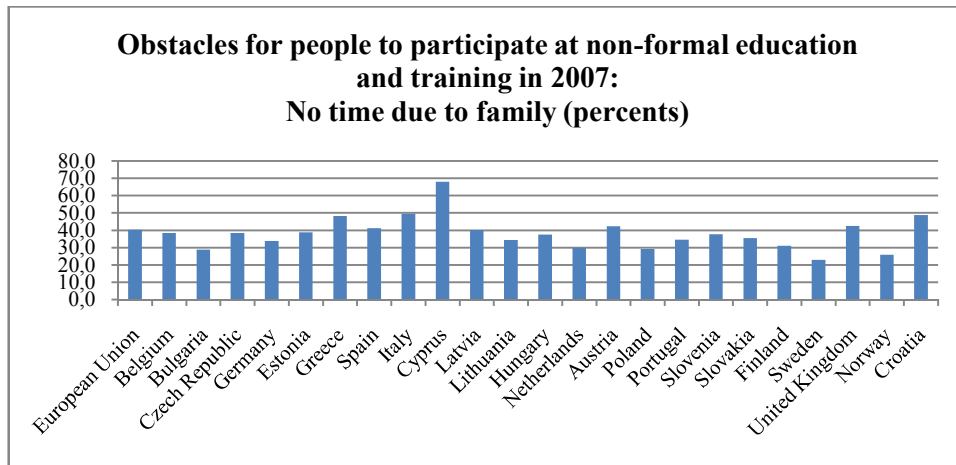
We cannot conclude without learning motivation analysis to emphasize predominantly factor, namely the increase in capacity or occupational advancement in career. The percentage lies between 80,2% in the case of Estonia or 78,1% of Croatia and 47,6% in the case of Italy.

For the analysis of the obstacles that stand in the way of continuous education (table No. 4) there are three overriding factors.



**Figure 5**

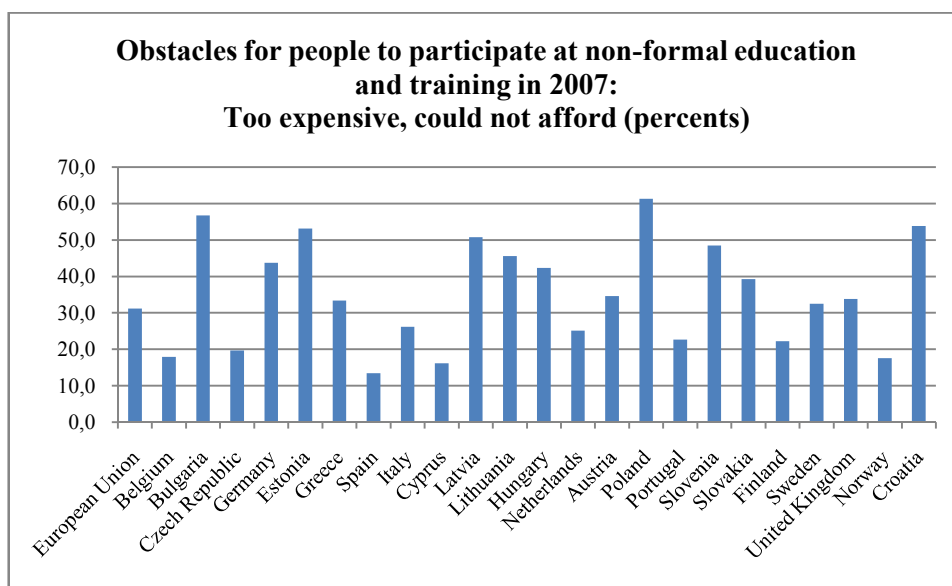
The first refers to lack of time due to resolve the problems of the family. Analyzing the data presented in Figure 6, we see that the first four places place the countries of southern Europe (Cyprus – 67,9%, Italy – 49,5%, Croatia – 48,7%, Greece-48,3%) and at the opposite pole, with the exception of Bulgaria and Portugal, the Nordic countries: Lithuania, Germany, Finland, Netherlands, Poland, Norway and Sweden with a percentage below 35%, which is explained by the family much more concentrated in the Mediterranean countries in relation to those from the Baltic and North Sea.



**Figure 6**



The second obstacle, refers to the high cost of education. Apparently explainable by the low standard of living, but hardly understood in the light of inability to overcome the gap from the advanced countries of the world, is the fact that at the top lies the countries in transition: Poland (61,3%), Bulgaria (56,7%), Croatia (53,8%), Estonia (53,1%), followed by Latvia, Lithuania or Slovenia (figure 7).



**Figure 7**

The last obstacle, but most importantly for our approach, is that of conflict with an educational program (figure 8). We meet here percent alarming as, for example: 55,5%-Slovenia, 53,2%-Hungary, 48,4%-Lithuania), but also encouraging situations such as that of the Netherlands – 17,6% or that of Bulgaria-24,1%. Relaxation programme for teaching, as the introduction of modern methods of teaching and learning, will significantly diminish this obstacle to continuing training.

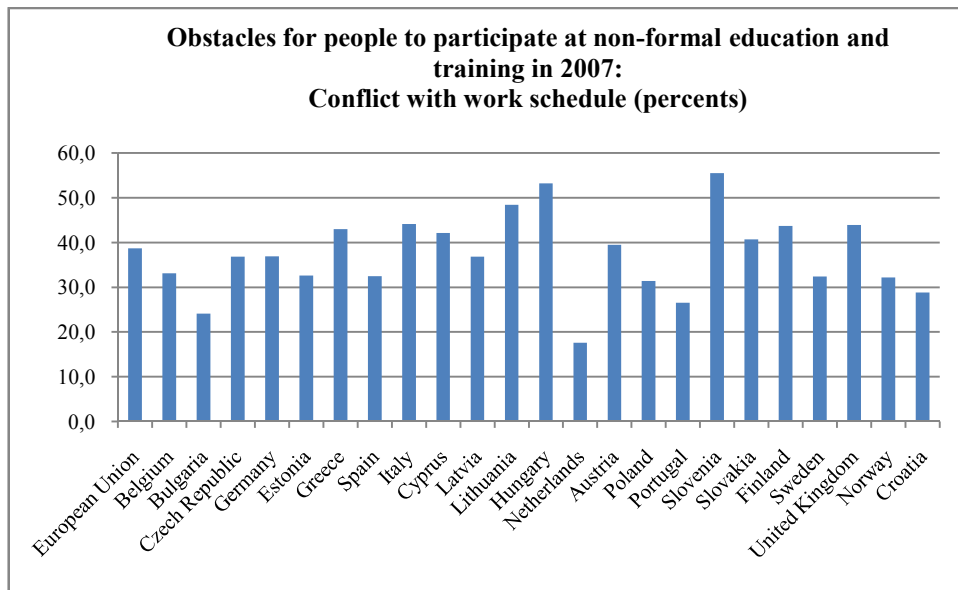


Figure 8

The last aspect that we analyze is the leading education institutions (table No. 5). If the average of the European Union is 38,3% in the total of the continuous education developed by the employer, there are a number of countries what lies above this percentage (figure 9): Bulgaria (68,8%), UK (50,2%), Sweden (45,5%), but also countries in which this form of education is practically insignificant (Hungary-0,6%).

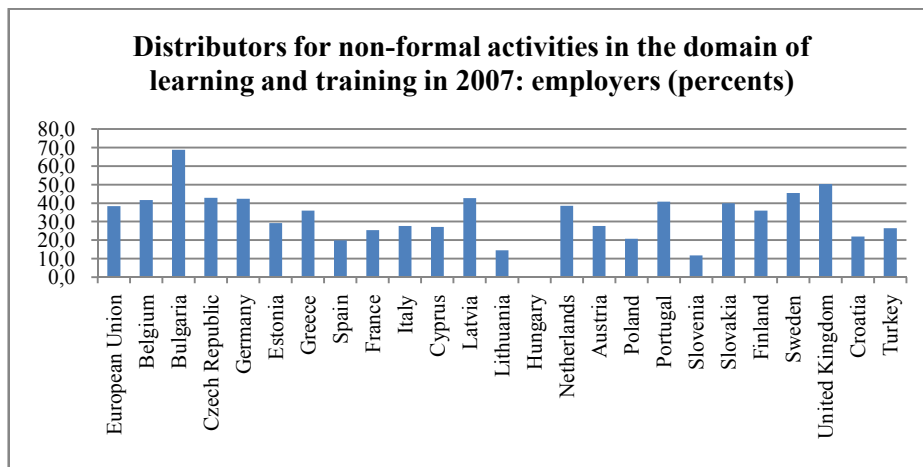
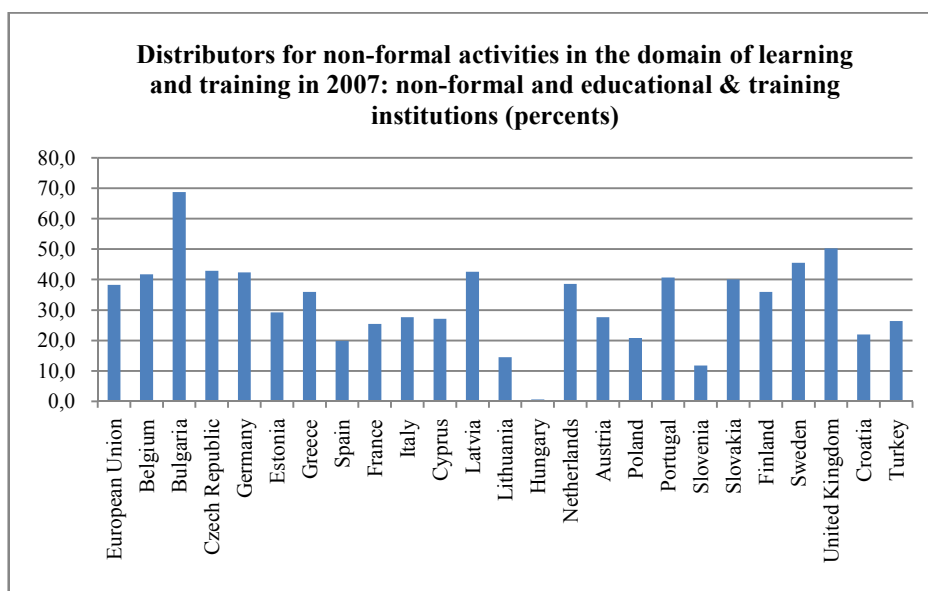


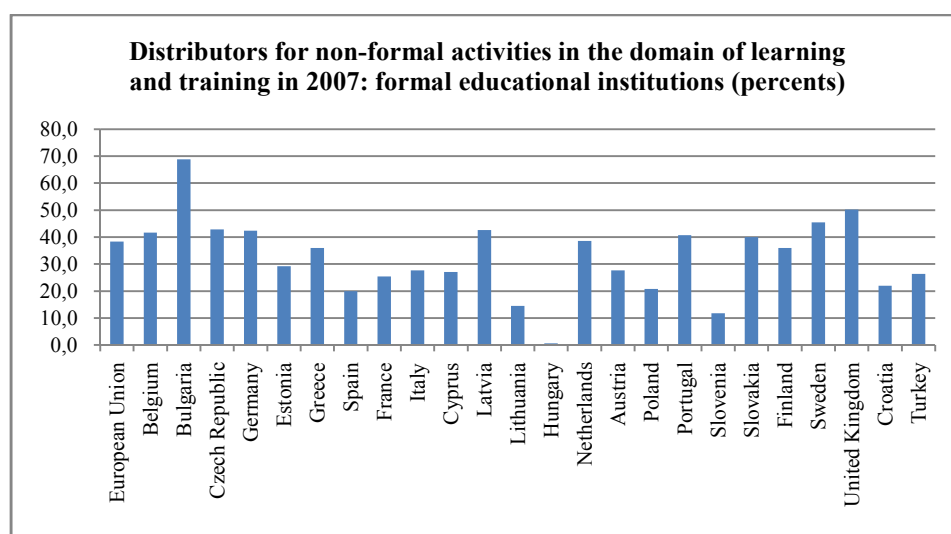
Figure 9

More interesting is the non-formal education, which is observed to be prominent in former socialist countries: Poland (49,9%), Slovenia (44,6%), Estonia (34,4%), Hungary (32,0%) followed by Lithuania, Slovakia or Czech Republic much above the European Union mean average – 16,5%. In contrast, the most developed countries of Europe: UK comes with 8,2%, Belgium – 7,3% and France – 2,9%.



**Figure 10**

Finally, the formal education has a share of 10,4% in the EU, reaching maximum in the case of the Netherlands – 38,2%, Lithuania – 20,8%, Slovakia – 17,0%, at the other extreme is within Germany with 4,8%, Sweden – 4,2%, Bulgaria – 3,1% and France with 1,9%.



**Figure 11**

We cannot conclude without to emphasize that in the field of lifelong education distributors, classical institutions account for only 11,2%, which gives a lot of thought about the adaptability to economic life.

#### **4. Brief History of the Concept of E-Learning**

The first mention of the concept of distance education was in the year 1728 when it appears in the Boston Gazette notice for those willing to follow a series of weekly courses and to deliver, at home, several written courses.

In 1892, appears for the first time the concept of "distance learning" in a catalogue published by the University of Wisconsin<sup>1</sup>. Only over 14 years, the teachers of this University begin recording courses and dispatch them to be able to be heard on fonografe by students at a distance.

In 1920, Sidney Pressey - a Professor of educational psychology, develops at Ohio State University the first "machine learning" what was proposed exercises and problems with multiple answers.

Norbert Wiener – the cybernetics father, in 1948, writes in his fundamental "Cybernetics or Control and Communication in the Animal and the Machine" about the process of communication between man and machine.

After the first television transmission in the U.S. of 1940 years, in 1953 appear first televised courses, distributed on Channel 8 american KUHT, offered by the

<sup>1</sup><http://www.uwex.edu/ics/design/disedu2.htm>

University of Houston and covering 38% of the syllabus. What was the highlight of these transmissions were aired that night, by applying to those who worked until late hours. The development of this type of education reached fantastic shares 12 years later being over a hundred thousand hours of televised.

After recording and the distribution to the public schools of Physics in the period 1956-1958 by Berkley University, was reached in the year 1960, at the first system of computer-aided training, called PLATO (Programmed Logic for Automated Teaching Operations) developed at the University of Illinois.

In 1968, the University of Alberta broadcasts 17 online courses, being closer of the present electronical education, through a system of registration and periodic reporting of the progress achieved by the trainees.

In the year 1977, Canada opens, through Project Hermes, the road for using satellites in the purpose of televised educational conferences.

After 1984, when it is used for the first time the documents sharing on the network for carrying out the common themes of study at the University of Waterloo, in 1986, the paper entitled: "Computer Assisted Learning or Communications: Which Way for Information Technology in Distance Education?" published in "Journal of Distance Education" by Tony Bates, put the foundations for the future development of distance education.

The year 1989 is crucial within the meaning of the idea of exchanging documents on-line from home, promoted by a British engineer Tim Berners-Lee, the creator of the World Wide Web system.

In 2000 appears e-learning system Blackboard that allows sharing documents, timetables of the course activities, quantification and storage of results obtained by trainees, verification, testing notices, etc.

In March 2005 is released version 1.0 of the learning open source platform Sakai, developed at present in more than 150 educational institutions in the world (especially in the USA and Western Europe), because in 2006 appear learning platform Moodle, image currently serves over 37 million users.

At present, the system of E-learning has become a business very prosperous sector with a turnover of over US\$ 48 billion in the year 2000<sup>1</sup>.

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<sup>1</sup>EC, *Communication from the Commission: E-Learning – Designing "Tejas at Niit" tomorrow's education*, Brussels: European Commission, 2000.

## **5. E-Learning-a Viable Solution for Continuing Training**

The concept of E-learning is a viable solution for continuous training activities. At a rate of 20,8% of all persons over 25 years in the European Union which asserts that the barrier to participation in continuing education activities that institutions supply is at the distance of your home, while 38.7% of the population is unable to respond to a rigid educational program (table No. 4), it seems that the only alternative is that of "comes with experience at home."

Advantages of E-learning system consists, on the one hand in the rapid and efficient distribution of resources for learning, conduct a dialogue with students more flexible in terms of time, discarding the rigid framework of a regular schedules, greater opportunity for students to socialize (even though virtual) and obtaining a feedback more rapidly and more fully address the issues or tests solved than under traditional.

Within the education and training "to the term" we appreciate the use with caution, this type of education. We refer below to higher education at a distance from Romania, where we are directly involved. Matters on which they'll put form part of the direct experience of the use of an E-learning platforms and the harmonization of this type of learning with the normative requirements of the education system.

The first issue raised is that of learning resources. The normative acts issued by the Romanian Agency for Quality Assurance in Higher Education of Romania shall provide the insurance obligation for developing media both in written format and digital. In addition, to the two-fold dilutions but not doubling the amount of information returned, this provision confers impediment unable to adapt "on the fly" of information on the learning platform and enter sometimes in conflict with the print.

We can give as an example, some economic indicators which, from the date of printing of the guide of studies have certain values, and at the date of use of the platform (what can be done with a delay of almost one year) they may suffer significant changes (see, for example, the rate of VAT plus overnight, what changed fundamentally results of examples of accounting courses. They were operated on the learning platform, but obviously not in the courses already printed and distributed).

Another aspect which deserves out is that of design system for learning. Due to the relatively small cost of education in Romania, due to poor general condition of living, but also because of frequently changes in the economic legislation of the country, the designing educational resources cannot entrust a specialized firms to use fully all the facilities of the platforms. For this reason, the design is left, at most universities, for teachers. What follows from this fact? On the one hand, even we believe that the ability of adapting to new technologies is great, there are a number

of teachers, especially located toward the age of withdrawal, which do not have the necessary skills to design a system of on-line education. The solution is, at first glance, the design by assistants. However, the development of an online course requires a great pedagogical experience what, the fatal, it is not owned by the latter.

A second aspect of the design by teachers is that of non-homogenous courses.

Even if a big number of indications, directions or regulations are present, it is very hard to believe that absolutely all those involved will align the requirements.

At this point, it appears inevitable, the user's confusing, who have to adapt quickly to the layout or the requirements of each course.

Another aspect, particularly important, is that of seriousness in the use of learning platforms. If in the context of continuous training, the user has an interest to deepen how much, things are changing in the context of formal education. On the statistics in table No. 3 (where, unfortunately, Romania is not present) in the former socialist countries, a percentage between 20% and 40% of the population over 25 years that resort to educational services, makes formainta in current employment. What is deducted from this statistic is quite simple: he (she) takes the certificate!

As a result of this sad finding, is imperative that a platform for education to ensure the greatest possible security of data, but also a permanent verification of the users. If the first requirement is relatively easily resolved by the staff, the second is practically impossible to resolved. Who can guarantee that the person behind the computer is even the student? Who can be sure that in a test or an examination given on-line, will answer to the question the person involved directly? Any solution would seek, there is always a method to bypass! Video cameras installed on each computer, on the one hand cannot be reasonable to the actual transmission speeds, and on the other hand, the student can be only a "picture" in the front of the computer with a keyboard disengaged, and someone else (prepared thoroughly) with a keyboard wireless may solve! You can object to the first sight: what is the interest of the student to crafty examiner? Unfortunately, we live in a society where honor is not on the foreground in all sectors of activity, and occupation and retention the jobs are a big problem for most people.

How can we solve this problem? The solution is encountered at many universities in Romania. Training is done on the platform, but the examination is performed directly under the supervision of a teacher in a place of education. At this time, the problem is solved, but distance learning is cancelled in its definition. At this point, it can attend classes at a particular University, only those persons at a reasonable distance of an examination Center (Center of studies).

In connection with this issue, it should return to another fact concerning acts of the Agency for Quality Assurance in Higher Education of Romania. In distance learning in Romania are provided for so-called activities tutorials to be conducted

face to face, through direct contact with the student. When there are educational platform, which allows making multi-user Conference, the only thing arising from direct contact is that of limiting access to education of persons at the distance of a center of studies.

Another heavy problem of the romanian legislation, is in our judgement, even that of the centres of studies. One such location requires a sufficiently high cost, involving staff qualified in I.D. technologies, computers, learning office etc. As a result of this, a center of studies cannot operate without a reasonable number of students. On the other hand, a student who wishes to attend courses a certain universities in the country (here is another question of trend smoothing plans for education, what is a partial breach of university autonomy), but does not have his domicile in the vicinity of a centre of study, will be unable to achieve this.

One last aspect, nut perhaps most important, is that of the use of learning platforms in the context of formal education, for the purposes of minimizing or even eliminating the direct contact.

Any teacher, with minimum experience, but a maximum of flexibility, adapt his speech at any time after the reaction of the auditorium. A look that is lost in the void or attached in any point, indicates immediate a change of how teacher's approach to the problem, without risking transforming discourse in a dialogue with itself. E-learning platforms, at the time of the current technology, do not allow viewing the students reactions, so be a tool for learning somewhat dry.

What can we detach from these things? We appreciate that E-learning platforms are extremely useful in the context of continuing education activities, offering a flexible temporal support and continuous auto-capacity self-inspection, but we are very vigilance to use, with real results, within the formal education, at least in the light of current technology and existing the actual situation in Romanian society.

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## 7. Appendix

**Table 1. Number of Universities in TOP 500 and their GDP**

Country	Number of Universities in TOP 500	GDP in 2009 (mil. US\$)	The place after GDP	The place after TOP 500
USA	152	14119050	1	1
Germany	40	3338675	4	2
United Kingdom	40	2178856	6	2
Japan	31	5068894	2	4
China	30	4984731	3	5
France	23	2656378	5	6
Canada	22	1336427	10	7
Italy	21	2118264	7	8
Australia	17	994246	13	9
Netherlands	12	796651	16	10
Spain	11	1467889	9	11
Sweden	11	406072	22	12
South Korea	9	832512	15	13
Switzerland	8	491923	19	14
Belgium	7	472103	20	15
Austria	7	382073	23	16
Israel	7	195390	39	17
Brazil	6	1574039	8	18
Finland	5	238607	34	19
New Zealand	5	117794	52	20
Norway	4	378592	24	21
Denmark	4	310093	30	22

South Africa	3	287219	32	23
Ireland	3	222156	38	24
India	2	1235975	11	25
Russia	2	1231892	12	26
Poland	2	430736	21	27
Greece	2	330780	27	28
Portugal	2	233478	35	29
Singapore	2	182231	43	30
Chile	2	161621	46	31
Hungary	2	129540	50	32
Mexic	1	874810	14	33
Turkey	1	614466	17	34
Saudi Arabia	1	376268	26	35
Iran	1	325938	28	36
Argentina	1	310057	31	37
Czech Republic	1	190321	41	38
Slovenia	1	48600	70	39

Source: [http://www.arwu.org/ARWU2009\\_2.jsp](http://www.arwu.org/ARWU2009_2.jsp)  
[http://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_GDP\\_%28nominal%29](http://en.wikipedia.org/wiki/List_of_countries_by_GDP_%28nominal%29)

**Table 2. People with ages between 25 and 64 which follow learning and training activities in 2009 (percents)**

Country	TOTAL		Men		Women	
	2004	2009	2004	2009	2004	2009
European Union (EU-27)	9,3	<b>9,3</b>	8,7	<b>8,5</b>	10,0	<b>10,2</b>
Euro Zone (EA-16)	7,3	<b>8,1</b>	7,2	<b>7,7</b>	7,5	<b>8,5</b>
Belgium	8,6	<b>6,8</b>	8,7	<b>6,4</b>	8,5	<b>7,2</b>
Bulgaria	1,3	<b>1,4</b>	1,2	<b>1,3</b>	1,3	<b>1,5</b>
Czech Republic	5,8	<b>6,8</b>	5,5	<b>6,5</b>	6,0	<b>7,0</b>
Denmark	25,6	<b>31,6</b>	22,1	<b>25,6</b>	29,1	<b>37,6</b>
Germany	7,4	<b>7,8</b>	7,8	<b>7,8</b>	7,0	<b>7,7</b>
Estonia	6,4	<b>10,5</b>	5,1	<b>7,6</b>	7,5	<b>13,2</b>
Ireland	6,1	<b>6,3</b>	5,1	<b>5,7</b>	7,1	<b>7,0</b>
Greece	1,8	<b>3,3</b>	1,8	<b>3,2</b>	1,8	<b>3,3</b>

Spain (1)	4,7	<b>10,4</b>	4,2	<b>9,6</b>	5,1	<b>11,3</b>
France	7,1	<b>6,0</b>	7,0	<b>5,6</b>	7,1	<b>6,4</b>
Italy	6,3	<b>6,0</b>	5,9	<b>5,6</b>	6,7	<b>6,4</b>
Cyprus (1)	9,3	<b>7,8</b>	9,0	<b>7,8</b>	9,6	<b>7,8</b>
Latvia	8,4	<b>5,3</b>	5,7	<b>3,6</b>	10,8	<b>6,9</b>
Lithuania	5,9	<b>4,5</b>	4,2	<b>3,6</b>	7,4	<b>5,4</b>
Luxembourg (1)	9,8	<b>13,4</b>	9,5	<b>13,4</b>	10,1	<b>13,5</b>
Hungary	4,0	<b>2,7</b>	3,4	<b>2,5</b>	4,6	<b>3,0</b>
Malta	4,3	<b>5,8</b>	4,8	<b>5,6</b>	3,8	<b>6,0</b>
Netherlands	16,4	<b>17,0</b>	16,1	<b>16,5</b>	16,8	<b>17,5</b>
Austria	11,6	<b>13,8</b>	10,9	<b>12,8</b>	12,2	<b>14,7</b>
Poland	5,0	<b>4,7</b>	4,3	<b>4,3</b>	5,7	<b>5,1</b>
Portugal	4,3	<b>6,5</b>	4,1	<b>6,2</b>	4,4	<b>6,8</b>
Romania	1,4	<b>1,5</b>	1,3	<b>1,3</b>	1,4	<b>1,6</b>
Slovenia	16,2	<b>14,6</b>	14,8	<b>12,9</b>	17,6	<b>16,4</b>
Slovakia	4,3	<b>2,8</b>	3,8	<b>2,2</b>	4,8	<b>3,3</b>
Finland	22,8	<b>22,1</b>	19,2	<b>18,5</b>	26,4	<b>25,9</b>
Sweden (2)		<b>22,2</b>		<b>16,1</b>		<b>28,5</b>
United Kingdom (1)	29,0	<b>20,1</b>	24,9	<b>16,8</b>	33,1	<b>23,3</b>
Iceland	24,2	<b>25,1</b>	19,6	<b>20,4</b>	28,9	<b>30,0</b>
Norway	17,4	<b>18,1</b>	16,3	<b>16,8</b>	18,6	<b>19,5</b>
Switzerland	28,6	<b>24,0</b>	29,7	<b>22,8</b>	27,4	<b>25,2</b>
Croatia (2)	1,9	<b>2,3</b>	1,8	<b>2,4</b>	2,0	<b>2,1</b>
Macedonia		<b>3,3</b>		<b>3,2</b>		<b>3,4</b>
Turkey	1,1	<b>2,3</b>	1,5	<b>2,4</b>	0,8	<b>2,1</b>

Notes:

(1) 2007

(2) unsure data

Source:

[http://epp.eurostat.ec.europa.eu/statistics\\_explained/index.php/Lifelong\\_learning\\_statistics](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Lifelong_learning_statistics)

**Table 3. The people reason for participation at non-formal activities at education and training in 2007 (percents)**

Country	knowledge/skills related to interesting	To get knowledge/skills useful for everyday life	To increase possibility of getting/changing a job	To be obliged to participate	To be less likely to lose job	Do job better/improve career prospects	Meet new people, for fun	Obtain qualification	Start own business	Other/no respond
Belgium	38,7	29,8	9,2	24,1	3,3	64,4	11,8	8,1	2,6	1,9
Bulgaria	38,5	40,0	20,8	22,1	22,0	77,3	9,2	34,3	1,8	1,2
Czech Republic	46,2	33,4	16,8	7,4	13,3	54,6	10,4	20,8	4,5	0,5
Germany	45,9	14,3	15,6	25,0	19,9	68,0	10,5	11,6	3,8	5,4
Estonia	21,1	17,6	5,8	24,9	15,1	80,2	2,4	8,8	1,6	5,5
Greece	76,7	52,4	25,5	18,1	16,0	74,8	20,6	48,6	7,9	4,3
Spain	66,6	50,8	28,4	11,8	12,7	68,4	11,8	25,0	4,8	5,0
Italy	43,9	20,9	10,9	13,8	2,5	47,6	13,3	13,5	2,6	3,9
Cyprus	64,3	38,2	8,7	16,9	2,1	53,6	14,7	13,3	1,6	4,4
Latvia	43,8	58,6	17,8	33,7	27,7	74,7	24,3	37,8	4,4	1,8
Lithuania	50,6	42,3	17,5	26,2	31,3	77,5	11,8	41,4	3,4	3,2
Hungary	56,0	52,0	33,3	51,4	38,3	67,8	13,2	35,2	7,5	1,3
Netherlands	42,4	40,2	12,8	35,9	6,6	66,4	19,2	23,7	4,2	10,1
Austria	57,4	57,2	16,2	23,7	10,5	67,1	20,9	10,7	4,6	5,1
Poland	7,6	7,2	7,2	5,2	6,6	67,1	0,5	7,2	1,4	2,8
Portugal	80,5	81,6	31,8	12,2	16,0	69,9	23,7	47,4	6,6	6,2
Slovenia	12,5	21,2	1,7	13,1	1,0	54,4	1,8	2,3	0,3	2,5
Slovakia	34,6	30,2	23,1	66,1	26,5	63,1	8,8	19,2	4,6	1,8
Finland	62,1	41,1	16,1	35,3	14,3	69,1	30,0	13,5	3,7	9,4
Sweden	59,3	41,8	6,5	36,4	8,0	61,8	20,8	8,9	1,5	5,5
United Kingdom	82,0	44,8	18,1	57,7	2,8	55,0	9,7	33,9	9,3	6,1
Norway	67,9	33,2	9,6	43,1	12,7	71,8	16,0	18,3	1,5	7,2
Croatia	45,4	35,9	17,3	31,7	17,6	78,1	8,3	15,3	4,9	1,4

Note:

(1) multiple answers allowed

Source:

[http://epp.eurostat.ec.europa.eu/statistics\\_explained/index.php/Lifelong\\_learning\\_statistics](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Lifelong_learning_statistics)

**Table 4. Obstacles for people to participate at non-formal education and training in 2007(percents)**

Country	Health orage	None within reachable distance	No time due to family	Did not have the prerequisites	Too expensive, could not afford	Did not like idea of going back to school	Lack of employer support	Conflict with work schedule	Other/no respond
European Union	14,8	20,8	40,2	15,6	31,2	14,9	18,4	38,7	26,8
Belgium	21,8	13,1	38,4	9,5	17,9	4,8	14,7	33,1	10,6
Bulgaria	11,5	29,7	28,8	16,3	56,7	6,2	11,6	24,1	7,7
Czech Republic	11,9	16,1	38,5	7,8	19,7	2,1	22,5	36,8	3,6
Germany	12,1	24,9	33,9	24,1	43,7	11,1	32,8	36,9	13,3
Estonia	18,2	34,5	38,8	2,9	53,1	8,5	8,8	32,6	42,6
Greece	10,5	19,1	48,3	7,5	33,4	9,7	9,7	43,0	19,0
Spain	5,8	8,5	41,2	7,5	13,4	2,7	4,7	32,5	27,7
Italy	19,7	16,8	49,5	19,2	26,2	16,6	15,2	44,1	12,4
Cyprus	9,3	12,0	67,9	5,2	16,2	4,8	5,2	42,1	12,3
Latvia	11,9	24,1	40,1	11,2	50,8	11,9	29,7	36,8	11,4
Lithuania	13,2	19,6	34,3	3,2	45,6	4,9	16,2	48,4	13,5
Hungary	12,5	32,4	37,5	13,9	42,3	18,9	39,9	53,2	15,0
Netherlands	23,8	13,0	29,9	4,2	25,1	13,5	20,1	17,6	22,8
Austria	6,3	22,4	42,3	7,1	34,6	2,8	16,1	39,5	15,8
Poland	9,1	31,0	29,2	9,2	61,3	17,5	20,4	31,4	11,5
Portugal	6,8	34,2	34,5	11,8	22,7	4,1	20,0	26,5	18,9
Slovenia	15,5	30,2	37,7	7,6	48,5	7,3	22,3	55,5	8,8
Slovakia	10,8	30,9	35,5	56,5	39,3	3,0	25,2	40,7	3,7
Finland	17,1	25,6	31,0	11,6	22,2	7,2	24,0	43,7	21,4
Sweden	23,7	22,0	23,0	5,8	32,5	6,9	19,1	32,4	20,5
United Kingdom	17,0	25,9	42,5	20,8	33,8	24,1	22,6	43,9	56,5
Norway	19,5	13,6	25,8	4,3	17,6	9,2	21,1	32,2	15,7
Croatia	11,0	26,7	48,7	14,9	53,8	4,2	17,1	28,8	8,6

*Note:*  
(1) multiple answers allowed

Source:  
[http://epp.eurostat.ec.europa.eu/statistics\\_explained/index.php/Lifelong\\_learning\\_statistics](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Lifelong_learning_statistics)

**Table 5. Distributors for non-formal activities in the domain of learning and training in 2007(percents)**

Country	Employer	Non-formal and educational training instit.	Formal educational institutions	Institutions where educat. & tr. is not the main activity	Employers organizations, chamber of commerce	Libraries	Non-profit associations	Individual	Trade Union	Other
European Union	38,3	16,5	10,4	8,9	5,0	4,5	4,3	4,3	1,4	4,0
Belgium	41,7	7,3	15,2	8,9	2,8	7,1	7,4	5,6	0,7	0,6
Bulgaria	68,8	14,1	3,1	3,1	3,0	5,8	0,7	1,1	0,2	0,2
Czech Republic	42,9	27,9	10,7	7,6	1,8	2,1	1,5	3,2	0,6	1,1
Germany	42,4	14,7	4,8	13,8	4,8	6,2	5,3	5,8	1,1	0,5
Estonia	29,2	34,4	10,0	9,4	1,2	3,9	2,1	2,5	5,5	1,7
Greece	36,0	12,1	14,6	13,6	3,3	5,2	3,2	1,4	2,3	4,8
Spain	19,9	26,2	9,7	5,0	6,7	4,5	5,4	2,9	4,2	11,5
France	25,4	2,9	1,9	6,3				1,7		60,2
Italy	27,6	8,5	12,9	8,0	12,9	2,2	4,4	6,3	1,3	11,3
Cyprus	27,1	19,3	5,4	10,1	1,3	15,5	7,1	12,9	0,9	0,3
Latvia	42,6	21,3	13,4	6,8	2,7	1,6	2,2	2,1	0,2	5,2
Lithuania	14,5	28,7	20,8	15,0	9,2		1,4	8,7	0,4	
Hungary	0,6	32,0	7,0	3,5	32,8	6,2	0,1	1,9	13,1	2,7
Netherlands	38,6		38,2				4,7	2,1	1,9	11,8
Austria	27,7	21,8	6,7	12,4	4,6	1,4	4,9	4,5	0,3	14,2
Poland	20,8	49,9	13,1	6,1	1,7		2,2	3,8	0,2	2,1
Portugal	40,7	20,9	9,1	8,4	2,3	4,5	5,5	1,4	1,4	5,8
Slovenia	11,8	44,6	8,7	8,0	20,8		3,9	1,9	0,3	
Slovakia	40,0	28,2	17,0	7,5	2,8		0,7	1,8	0,1	1,1
Finland	36,0	10,1	8,8	1,1	6,7	29,5	0,8	3,0	3,0	
Sweden	45,5	14,6	4,2	17,1	3,9	3,4	5,6	2,5	2,0	0,5
United Kingdom	50,2	8,2	11,1		7,0	1,8	1,9	4,3	0,1	5,4
Croatia	22,0	24,2	15,6	12,8	5,0	1,6	3,3	0,8	0,4	7,7
Turkey	26,4	27,0	7,3	3,2	2,8	25,4	3,8	3,6	0,4	

Source:

[http://epp.eurostat.ec.europa.eu/statistics\\_explained/index.php/Lifelong\\_learning\\_statistics](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Lifelong_learning_statistics)