

E-LEARNING IN EUROPEAN HIGHER EDUCATION

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ABSTRACT

E-learning has been enrolled as one of the main subjects in the agenda of the European and national institutions in the last years. This initiative tries to mobilize all the actors to hasten the changes from the education and training systems so that the European Union should advance towards a knowledge-based society. In this sense the present paper offers moment “photography” of manner in which the students valuate the e-learning system in two universities which belong to different cultures: Romania and France.

Keywords: e-learning, student, higher education, France, Romania

1. INTRODUCTION

E-learning is a type of Technology supported education/learning (TSL) where the medium of instruction is computer technology, particularly involving digital technologies. E-learning has been defined as "pedagogy empowered by digital technology" (<http://www.grayharriman.com/mlearning.html>). In some instances, no in-person interaction takes place. E-learning is used interchangeably in a wide variety of contexts.

According to Clark and Mayer (2011, pp. 8), e-learning is “instruction delivered on a digital device such as a computer or a mobile device that is intended to support learning.”

E-learning refers to using electronic applications and processes to learn. E-learning applications and processes include web-based learning, computer-based learning, virtual classrooms and digital collaboration. Content is delivered via the internet, intranet, extranet, satellite TV, and CD-ROM with multimedia capabilities (ISP, 2004). E-learning programs are saved on the internet/intranet and can be accessed any time, anywhere, regardless of the computer platform, as long as the user has subscribed to an internet service provider (ISP).

The aim of e-learning system is to offer an attractive environment for learning, therefore the participants develop their abilities and build active their knowledge. The facility with which a student manages to accumulate knowledge, the prepare degree by which he obtains about this process and the time necessary characterises the quality of this system. Over there by the simple representation of knowledge, in e-learning system, the top research at international level are focused especially by psycho-pedagogic factors. In this context we propose take into account of individual particularities: previous knowledge, learning style, needs and motivation. On the basis of those attributes can develop an adaptive educational content, which starting to users traits, builds a particular learning model, which is efficient and it has at found the motivation.

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The hypermedia technologies use is a pregnant characteristic of all e-learning systems. The intuitive imprint and the attraction add which it is offered of Web sites are not supplanted. In the last time can observe a big accent put by the multimedia open-source technologies selection thanks to very large public whom it is addressed to use the educational materials. The accessibility it is a major request for all which is published by Web and the use of one own technology limits the recipients' number by begin.

In essence, e-learning offers the efficient access at information and most new knowledge, at new and efficient teaching, learning and knowledge valuation methods, instruction and continuous former. In this sense, e-learning it is too an alternative at the permanent education in the today or tomorrow *computers society*.

This paper is structured in four parts. First part an introduction which develops the conceptual background of e-learning term. Second part describes the research methodology of study. Third part illustrates the results obtained for e-learning style between the students' at all educational levels from two European universities, respectively one Romanian university and one French university. Last part suggests the mains conclusions of study realized in the two universities.

2. METHODOLOGY

The investigation represents the most acquaintance method of obtain primary dates necessities from the fundament of marketing decisions and not only. In statistical literature are knowed two categories of sampling methods: probabilistic and "with rational choice" not probabilistic.

In the framework of empiric research realised I used the proportional stratified sampling in function with the percent of students of one faculty in total students of university and in function with the proportionality of students by level of study, respectively licence, master, Ph.D. students for both universities studied. Thus in study I used a structured investigation.

One advantage of stratification investigation in report with others probabilistic method is the increase of accuracy of estimations made. Only the proportionally stratification investigation ("representative stratification") is which can be interpreted as a census (Chirouze, 1993). The interest of this investigation type is that number of persons asked having common characteristics is proportionally with layer population. The proportionally stratification investigation assures a investigation rate " n/N " in each layer equal with on the whole population " n/N ".

Select the number of units which was studied had in view the weighting of higher education cycles with one coefficient. I used this method because the students which are register at master and Ph.D. programs know well the educational system of that faculty. Thus, for students of master I weighted with 0.4 and for Ph. D. students I weighted with 0.6.

Data collection regarding e-learning system was conducted among the students of two universities, respectively "Babeş-Bolyai" University, Cluj-Napoca and "Jean Moulin" University, Lyon.

For the applied research it was extracted a percent by 0.8% by the universe survey of each universities taken into account. For determined the structure of pattern I was as landmark the number of students register at daily class in 2011/2012 academic year at “Babeş-Bolyai” University, Cluj-Napoca according the data provided by the Statistics Office of university (Table no 1).

Table no. 1: Number of students enrolled at the „Babeş-Bolyai” University begging with 01.10.2011, daily classes

Source: UBB Statistical Office, No. 16.327/28.05.2012

Crt.No.	Faculty	L	M	D
1.	Mathematics - Informatics	1410	378	73
2.	Physics	200	84	62
3.	Chemistry and Chemical Engineering	474	210	76
4.	Biology - Geology	747	190	56
5.	Geography	2591	744	87
6.	Environmental Science	625	180	33
7.	History - Philosophy	1160	333	286
8.	Psychology and Education Sciences	2929	903	68
9	Faculty of Political Science, Administrative and Communication (FSPAC)	2320	568	43
10.	Letters	1955	395	147
11.	Law	2102	110	1
12.	Faculty of Economics and Business Administration (FSEGA)	5170	1696	125
13.	Physical Education and Sports	1304	295	8
14.	European Studies	1039	349	69
15.	Sociology and Social assistance	932	392	80
16.	Business	732	347	0
17.	Orthodox Theology	461	147	42
18.	Greco - Catholic Theology	249	114	0
19.	Romano - Catholic Theology	160	35	7
20.	Reformat Theology	137	56	13
21.	Theatre and Television	242	59	35
	TOTAL	26939	7549	1311

Prorector,

Prof.univ.dr. Ioan Bolovan

Analyst,

Andrei Mlendea

For French university I was as start point the students numbers register to daily class in 2011/2012 academic year at “Jean Moulin” University, Lyon 3. These data was been publics by the university site at February 9, 2012 to the following URL address: <http://www.univ-lyon3.fr/fr/presentation/vue-d-ensemble/chiffres-cles/profils-des-etudiants-inscrits-en-2011-2012-562592.kjsp?RH=1297694592670>) – Table no 2.

Table no. 2: Distribution of students enrolled in 2011-2012 by components in Lyon

Faculty (% students)	Licence = 63% (without professional licence = 19%)	Master = 31%	Doctorat =3%	DUT =3%	TOTAL
Law (37.1%)	4212	2559	248	248	7267
IAE (26.2%)	2975	1807	175	175	5132
Languages (14.05%)	1647	1000	97	97	2841
Letters and civilizations (9.9%)	1124	683	66	66	1939
IUT (4.6%)	522	317	31	31	901
Philosophy (2.9%)	330	200	19	19	568
International Relations (4.2%)	475	290	28	28	821
DAEU - Applied Training Continues (0.6%)	68	42	4	4	118
TOTAL	11355	6898	668	668	19589
Between foreign students					3776
TOTAL remaining students					15813
TOTAL students (licence, master, Ph. D.)					15145

The number of subjects which are responded is 413, between 124 valid questionnaires to students of “Jean Moulin” University, Lyon 3 (apply period May 25 – June 10, 2011) and respectively 289 valid questionnaires to students of “Babeş-Bolyai” University, Cluj-Napoca (apply period March 29 – April 27, 2012). The students’ distribution by each faculty within two universities and by educational level is presented in Table no. 3:

Table no. 3: Structure of pattern studied „face to face”

„Babeş-Bolyai” University, Cluj-Napoca				„Jean Moulin” University, Lyon 3			
Students Number in Pattern				Students Number in Pattern			
Faculty	L	M	D	Faculty	L	M	D
Mathematics -	10	4	1	International Relations	3	2	-
Informatics							
Physics	2	1	-	Economics	16	15	2
Chemistry and	4	2	-	Languages	9	8	1
Chemical Engineering							

Biology - Geology	5	2	1	Letters and civilizations	6	6	-
Geography	18	8	2	IUT	3	2	1
Environmental Science	4	2	-	Philosophy	2	2	-
History - Philosophy	9	4	1	Law	23	21	2
Psychology and Education Sciences	20	9	2				
FSPAC	15	7	1				
Letters	13	6	1				
Law	12	5	1				
FSEGA	37	16	3				
Physical Education and Sports	8	4	1				
European Studies	7	3	1				
Sociology and Social assistance	7	3	1				
Business	6	3	1				
Orthodox Theology	3	2	-				
Greco - Catholic Theology	2	1	-				
Romano - Catholic Theology	1	-	-				
Reformat Theology	1	-	-				
Theatre and Television	2	1	-				
TOTAL students	188	84	17	TOTAL students	62	56	6

Because, the research instrument used was the questionnaire, the quantitative data processing was performed by SPSS 17 statistical soft.

3. RESEARCH RESULTS FOR E-LEARNING STYLE

The e-learning concept was been “adopted” by the universities with aim to obtain profit, and the traditional universities are non-profit. In fact, the classes of online universities play an important role in strategic plans in over 50% by the universities leaders (Sloan Consortium, 2007). In 2015, the global market for online education is expected to reach 69 billion dollars (Sharma and Mishra, 2007).

Table no. 4: E-learning use

			University followed in this moment		
			Jean Moulin	Babeş-Bolyai	Total
Are – you used the e-learning system?	no	Count	72	160	232
		%	17.4%	38.7%	56.2%
	yes	Count	52	129	181
		%	12.6%	31.2%	43.8%
Total		Count	124	289	413
		%	30.0%	70.0%	100.0%

The distribution analyzed as variable of marketing mix is heterogeneous and very large. In fact, this regards the distribution channels and the distribution forms which the higher education institution use to provide the products and/or services to its proper functioning. Distribution involves providing of targets (students and potential students) of certain products, services, ideas, information optimal quantitative and qualitative in a certain place and at a certain moment of time that they have requested (target groups).

Often, the most used distribution channel used by faculty/university is the direct channel, so the face to face meeting between the provider (teacher/ administrative personal/ auxiliary personal) and beneficiary (student). However, in some cases it may turn to a distribution channel through modern communication means (computer and Internet), making use of e-learning learning from the student (Popescu, 2011 & 2012).

According to the data obtained (Table no. 2, Figure no. 1), following the investigations realized shows that almost half of students, indifferent by the faculty or the university of origin, resorted of this learning form (mean stands at 43.83%, the percent being highest in Romanian higher education).

Thus, we appreciate that the ignorance and the absence of integration of this type of education in the framework of contemporary higher education services will subsequently lead to the loss of future students who will reoriented to universities which keep steep to the technology becoming more advanced nowadays. The e-learning use will lead at the improvement of accessibility of higher education institution.

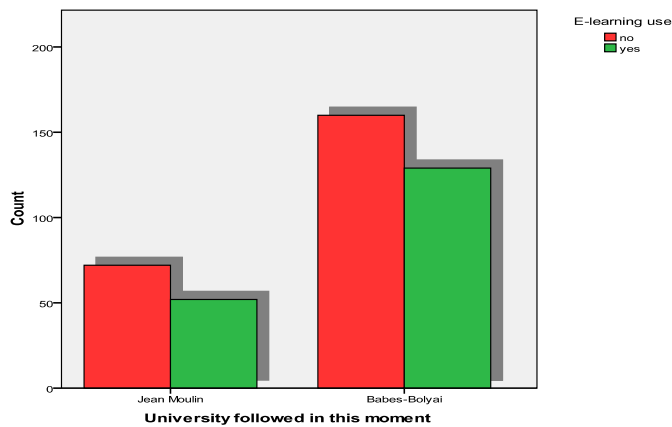


Figure no. 1: E-learning use

We consider that it is very important to know if the students agree this type of learning (e-learning). Much more we wanted view if the faculty/ university can realize a segmentation of students in report with this type of education. For this, we use the segmentation trees. We observe that a student's segmentation in rapport with this criterion it is possible only in Romanian university. The French students can be not divided in function with this type of learning.

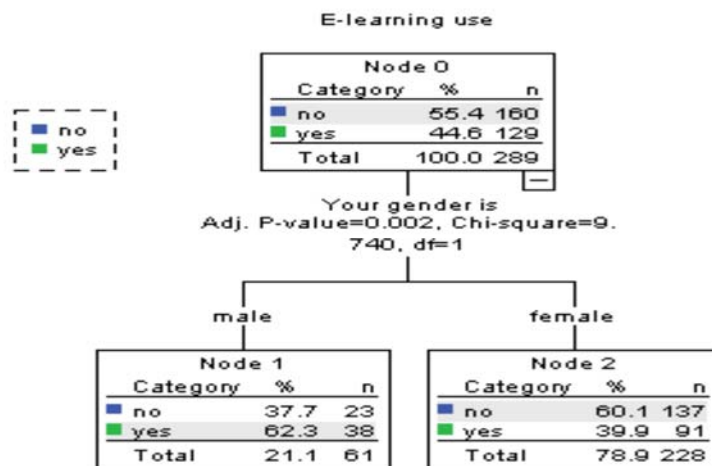


Figure no. 2: Segmentation regarding e-learning use in function with socio-demographic variables (UBB)

The e-learning learning is used in different percentage by the male students and the female students, those the first category are more attracting to this type of education. Thus, the

faculties with real profile (mathematics-informatics, physical, chemistry, etc.) where, usually, the number of the male students is greater than female students, could consider to the introduction of this learning form, unlike the faculties with human profile (letters, history and philosophy, psychology and education sciences, etc.) where dominated rather the female students.

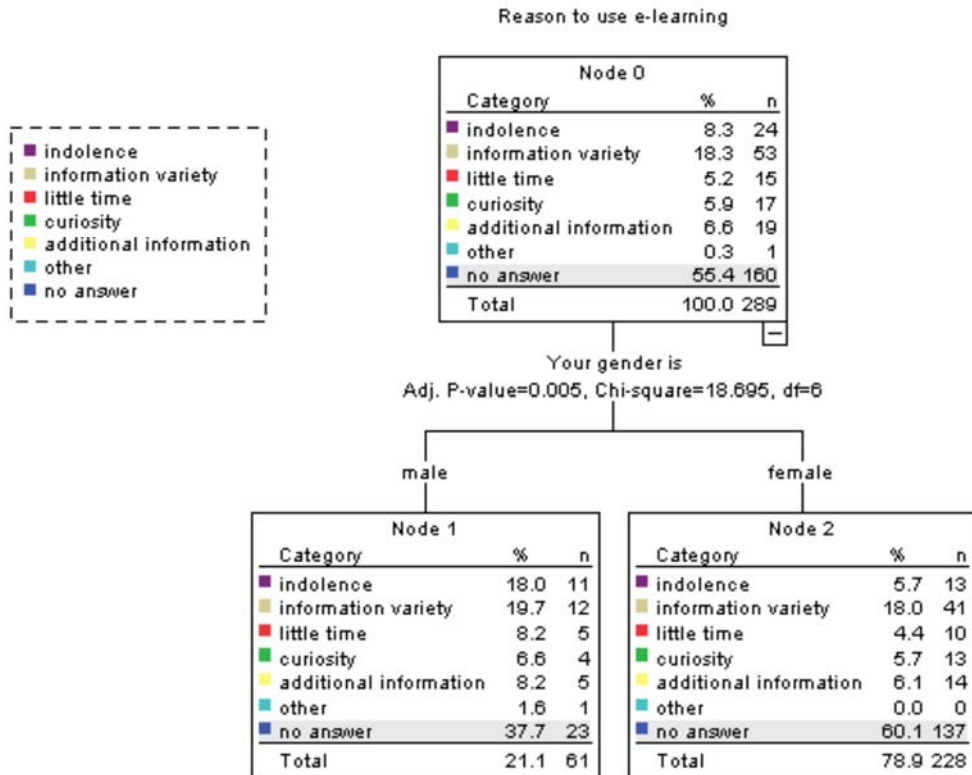


Figure no. 3: Segmentation regarding the reason which determined the use of e-learning in function with socio-demographic variables (UBB)

The reasons for which the subjects turn to e-learning are different in function with gender, thus:

- a) the male students claim that the information variety, but too the convenience contribute to the decision making then they take a decision which regards this type of learning;
- b) the female students, even if use less this type of learning, then they take the decision of use, they make for information diversity.

Knowing these reasons helps university to provide a certain type of information in function with the majority people register to the studies of respectively faculty.

Analyzing the options of future graduates forms of UBB, we observe that emerges their desire to divide the time between studies and work for obtain the money. The university will have to meet their needs, expectations and desires by programs that offer the possibility of student to realize both activities. The university will be necessary focus by classical education, but the classes will be afternoon or of the end of week, or the university will develop the e-learning programs.

4. CONCLUSIONS

Through the internet, all sources of information on different subjects are available any time, anywhere. E-learning is essentially the network-enabled transfer of skills and knowledge (Anon, 2006).

On the base of the study made can conclude that both the Romanian students and the French students used the e-learning system, but in the French University the students can not be divided in function with the use of e-learning students how it is possible in the Romanian higher education.

The specifics particularities of e-learning technologies give new dimensions in education which can be complementary or alternatives face to traditional method of educational domain. For this reason the “people of university” must pay attention of the needs, expectations and desires of them students for can offer what they want in higher education area.

The worldwide e-learning industry is estimated to be worth over \$48 billion according to conservative estimates (European Commission, 2000).

Developments in internet and multimedia technologies are the basic enabler of e-learning, with consulting, content, technologies, services and support being identified as the five key sectors of the e-learning industry (Nagy, 2005).

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