

The University: An Institution of Co-creation and Social Transformation

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Abstract

This study draws on the implementation of the Bologna Declaration and the daily life of universities, to appraise the process's objectives whilst comparing them to its outcomes. The concepts of European University convergence, global training of students and a more balanced society are objectives that the Bologna Declaration enshrines. Yet, for its implementation, a knowledge-based society calls for a greater plasticity of skills to improve economic and social performance. This study relies upon questionnaires to university students, held in 2008, 2009 and 2015. Evidence unveils a somewhat slim knowledge pertaining to aspects of the Bologna process, which may have negative external economies about the autonomous workload each student should devote to course units, as well as to the hierarchy and management of their tasks. This evidence also unveils that students are sensitive to the five global development processes of the person in line with the multiplicity of Gardner's intelligences. Hence, education should endow students with comprehensive and not just specific skills. Therefore, we consider it urgent to redefine the guidelines that make the University an institution of co-creation and social metamorphosis, adaptable to the 21st century.

Keywords: Bologna, Skills, Education, EHEA, Mission, University

JEL Classification: A20, A23; I23; I25

Introduction

The Bologna process was enforced in Portugal in 2006 by Decree-Law 74/2006 (Portugal, 2006). It conveys the idea of a harmonic and accommodated development of higher education, thereby allowing for

academic and professional recognition throughout the European Union (EU). It also aims to qualify the Portuguese in the European space, encourage the completion of higher education degrees, improve the quality of training, promote students' mobility and the internationalisation of education. It is structured in a system of ECTS (European Credit Transfer System), which functions as a single academic currency because it smooths and facilitates the free movement of individuals within Europe. But Bologna does also envisions the implementation of teaching-learning processes aimed at changing habits and routines of work, along with academic success, student satisfaction and lifelong learning (Santos Álvarez and Garrido Samaniego, 2015). In this context, we decided to investigate the university students' awareness about the goals and assumptions underlying the construction of the European Higher Education Area (EHEA) with a view to question about possible new directions for higher education and which may be deemed sensitive to a new socio-economic paradigm, whilst stepping away from the current paradigm based upon axioms of the Industrial Economy, which society calls for and is keen on achieving.

We consider relevant to appraise in-depth the University and its educational processes, given the economic effects produced by spillovers of knowledge from the University. In fact, the University produces tacit and specific knowledge, both equally important to finance the production processes, which makes higher education a variable with explanatory power of the earnings and productivity indices. Therefore, the cost-benefit analysis is crucial for this rationale, where higher education plays a paramount role as the structural element to derive economic gains.

Hence, a questionnaire to UMinho (Portugal) students has been given in 2008, 2009 and 2015. Evidence sheds light upon a rather shy limited knowledge about the methodology and objectives of the Bologna Process.

This study is divided into five sections. The second section, in a perspective of structural change, offers a framework of the theme and relates to the role and mission of the University whilst addressing the skills and economic growth. Section three consists of an empirical application: it presents methodology, sample, data and results. The following section discusses results and, finally, it presents the main conclusions, which precede the referenced bibliography.

University mission and objectives: the Bologna Reform

The University's mission is to create, develop and transmit and favour transfer of knowledge, science, culture and technology, guidelines which are deemed structural in the Bologna Process. The University endows students with comprehensive skills and specific skills, thus gearing the betterment of the productive factor for excellence – the human factor. This makes education a strategic variable that explains the income and productivity indices. Hence, education is a structuring economic instrument.

This process enshrines the notion of competences and skills, and it is intended to replace teaching based on the transmission of knowledge to a paradigm based on skills development (Leite and Ramos, 2015; Portugal, 2006), to prepare people for the performance of professional activities which require the application of knowledge and scientific methods. Hence, according to Brunner (2014), one should understand, interpret and judge the University in its different variables. Such guidelines render education a control variable of misery and poverty (Herrán, 2011), because education educates global society with each person's heart (Delors, 1996). Hence, Bologna aims not only at changing behaviours within universities, but also at furthering the reflection on the teaching-learning process and excellence of education of students as a whole (Blanco *et al.*, 2012; Santos Alvarez and Garrido Samaniego, 2015). It also aims at the raising awareness on the integration of cultural, social and economic aspects and the freedom to materialise criticism about the new trends in higher education (Silva, 2013), because education is expected to contribute to mankind betterment, to scientific and technologic progress and to universality (Herrán, 2011). In this perspective, Bologna brings about the concept of modernity to universities, along with the student-pivot notion, a pillar of the teaching-learning process itself.

However, if society' status quo remains unchanged, what is the leading role one may expect from a University eager to be perceived as modern, present and dynamic? If the present-day University does not revise its traditional objectives, (i) will it be an instrument of socialisation, inclusion and cohesion? (ii) will it be able to guide society toward equity, social justice, economic well-being and competitive sustainability? (iii) will it be an instrument of universality?

These are some of our concerns with regard to the competences that may allow for the social and professional inclusion of the student and respond positively to social pluralism as understood by Ibáñez-Martín *et al.* (2012) and Tejada and Ruiz (2016). However, the current knowledge-based economy requires multiple skills, given their ties to performance and competitiveness (Pereira, 2013a; Tejada, 2012). However, the notion of competences/skills should aggregate the social and personal dimensions, because competence blends itself with the notions of development, experience and socio-professional context, whilst clustering different awarenesses, such as knowledge, processes and attitudes (Pereira, 2013b; Pereira, 2015; Rossano *et al.*, 2016; Tejada, 2012; Tejada and Ruiz, 2016). Despite of its importance, the EHEA social dimension is one of the lesser-known aspects of the Bologna process, although it is essential for unfolding the equal opportunities the process recommends (Egidio Gálvez *et al.*, 2014; Santamaría and Montero, 2013).

One should not mistake the concept of knowledge-based economy with the information-based economy one (Herrán, 2011), nor resources with skills (Tejada, 2012), nor tangible with intangible capital, because they are different. In this respect, the empirical work realised by Roing Cotada and Villarreal Rodríguez (2008) says that companies are actually valuing the graduates' soft skills. In a sample of 1150 companies from different sectors, distributed between the public and private sectors, and that have admitted holders of a degree, the skills ranking scores were: 43% assigned to generic skills; 31% to specific skills and 26% to the technical ones. In this light, one may understand that the most valued skills refer to personal and social qualities, which seem to have a direct influence on performances (Goleman, 1999; Pereira, 2008). It is also worth mentioning that the study conducted by Blanco *et al.* (2012) emphasises more the enhancement of interpersonal and intrapersonal skills as opposed to cognitive ones. Ibáñez-Martín *et al.* (2012) and Pereira (2015), do also value highly the various social and human skills.

In loco, those results are in line with the new economic and social paradigm, which does not rest upon repetitive behaviour patterns based on past routines (Tejada and Ruiz, 2016). Therefore, an educational reform should be independent and global whilst considering new horizons (Herrán, 2011). It should be inclusive and based on three fundamental pillars (Egido Gálvez *et al.*, 2014): (i) *education*, which unfolds in the access to education and educational institutions; (ii)

participation – which relies upon the quality of the experiences and learning; and, (iii) *achievements*, which are the outcomes, a situation that calls for an in-deep reflection about the universities' mission.

Universities: a three-pillard mission

The University should have a three-pillard strategy in what concerns its educational offer: pursuit of excellence, differentiation and the establishment of agreements with other institutions. Such perspective considers graduate education should prepare students for vocational activities; yet, the social and citizenship and the overall development are not the only dimensions which outshine in the individual professional character (España, Real Decreto 1393, 2007; Egido Gálvez *et al.*, 2014; Herrán, 2011; Santos Alvarez and Garrido Samaniego, 2015; Tejada and Ruiz, 2016). However, the University has been assigned three missions: (i) *teaching*, (ii) *research* (iii) and the *answer to the community needs* (University-Society links). If the first mission corresponds to the earliest goal of the University, the research mission springs up as the intrinsic reason for knowledge dissemination. Insofar the third mission is concerned, it would be more associated with the community service objective. This third mission would render possible the strategic link between the first and the second one. However, a new concept sprang up and started to be disseminated in the 1990's: the idea of an entrepreneurial University embbed with the need for sustainable growth. It is thus worth elaborating upon the contribution of the third mission of the University for the economic development, thereby linking the first and the second missions. The link University-civil society may enhance the established paradigms (Brunner, 2014); however, there is not a collaborative combination of these goals at the level of social commitment, with a systematic response to sustainable changes. Indeed, universities collaborate with Governments, companies and civil society with the purpose of changing society and engaging in other activities outside the scope of teaching and research, which would be in line with its third mission (Herrán, 2011; Pereira, 2013a; 2013b; Sobrado and Fernández, 2010). This would be linked to technology transfer and contribute to economic development and social metamorphosis, materialised in so-called sustainable development. In this sense, there would be a market logic and entrepreneurship in what concerns the university's mission. It would respond to human rights violations,

disrespect, hostility, individuality and pride (Ibáñez-Martín *et al.*, 2012). However, universities seem to be measured by specific criteria, where quantity can overlap quality and where quality is invoked through quantitative mechanisms, to the detriment of knowledge dissemination through education and community service. Despite of the strategic importance of this third mission, university seems to put emphasis mainly on the results of its second mission, thereby giving the impression that the remaining missions are mere responses to the results of its second mission. Hence, it seems to be common to accept that a high ranking on a University investigation is enough to drag other indicators of the two other missions. But will this approach lead to a dynamic, inclusive and concerned with its co-creation and social transformation dimension? This brings us to this study empirical application.

Empirical application

Methodology and Results

In what regards the learning process, if it is student-centred one, it is more reflective, responsible, autonomous and co-operative (Tejada and Ruiz, 2016) and the teacher's job is to help the student explore choices and opportunities, devise paths and methodologies that will help him/her to organise the vast richness of information in the light of the intended objectives. Gardner (1983) also considers that the learning process improves the innate abilities of the students thus expanding their intelligence, referring to two types: intrapersonal intelligence and interpersonal intelligence, despite his theory on multiple intelligences. The first differentiates individuals whereas the second one enables them to better tackle the relationships among people and to know how to behave in a group setting. He defends that intra and interpersonal intelligence are the added elements of performance, and he lists five possesesses to guide behaviour: (i) *a disciplined mind*, (ii) *a synthetic mind*, (iii) *a creative mind*, (iv) *a respecting mind*, and (v) *an ethical mind*. Our empirical study will rely upon Gardner's model (1983). We start by assessing students' knowledge about the EHEA. Then, we reflect on the reasons, motivation and vocation of the choice of their degree course to then relate this information with the holistic learning process of Gardner. Our target population brings together our students and the sample includes those students who attended classes when we ran the questionnaire, as featured below:

Year	Sample (n)	Gender		Part-time Student	Age (years)			
		Male	Female		[17-18]	[19-22]	[23-30]	>30
2008	301	85%	15%	19%	13%	55%	25%	7%
2009	152	65%	35%	18%	45%	39%	10%	6%
2015	380	33.9%	66.1%	11.3%	18.7%	70%	7.1%	4.2%

Table 1. Characterisation of the sample and the respondent population

Source: Author's elaboration

In the first two moments of inquiry, students attended, essentially, the courses of Economics and Informatics Engineering. In the year of 2015, we expanded the target population to other scientific areas, as summarised in table 2.

Table 2.
Percentage of
respondents per
course (in the year
2015)

Degree Course	Frequency	Percent
Sociology (SOC)	25	6.6
Public Administration (PA)	36	9.5
Management (M)	94	24.7
Languages and European Literatures (LANG)	41	10.8
International Relations (IR)	77	20.3
International Business (IB)	21	5.5
Economics (ECON)	59	15.5
Communication Sciences (CSc)	27	7.1
Total	380	100.0

Source: Author's elaboration

The student's perception about The European Space for Higher Education

In the first two years, we intended to improve/better the students' knowledge about the ECTS credit unit concept. Only 16.3% in 2008, and 19.1% in 2009, believed that it was a unit to measure the work performed by each one of the students. This percentage unveils the students' unawareness about what is the ECTS credit unit (Annex A). In the year of 2015, a significant proportion of respondents goes on ignoring the whole concept (Annex B). As the ECTS measures the overall workload performed by the student, students still do not know the amount of workload they were expected to devote to each course unit.

We also asked if the EHEA called for autonomous work. It is interesting to say that 60.2% and 48.6% of the respondents for 2008 and 2009, respectively, said no and/or did not know (Annex C). Although in a slightly lower percentage - less than 50% -, students continue on ignoring the essence of the EHEA and autonomous work they are expected to perform in 2015 (Annex E).

But, the lack of awareness of the students outshines in the responses to the question: Does the EHEA intend to harmonise studies at the European level? In 2008, 57.1% of respondents did not know, and it worsened in 2009, because the percentage rose upward to 70.4% (Annex D).

The rational behind the choice of a given Course

We resorted to the 2015 questionnaires to assess the students' rationale to choose a course and what are their expectations about the skills they would be endowed with. We realised a Principal Components Analysis based upon the questionnaire's 48 items and we found 5 dimensions which allow for the extraction of 52.6% of the variance, which may explain the reasons subjacent to students' differences of perception (Table 3).

Table 3. Principal components analysis

Components	Extraction of the variance %	Area of relationship
1st Component	21.7%	Includes items of the motivation for choosing the course.
2nd Component	11.6%	It is related to the technical skills of the course.
3rd Component	9.5%	It includes items pertaining to the vocational interests of the students toward the course they are pursuing.
4th Component	5.2%	It brings together social evolution related items which the student expects to derive from the course.
5th Component	4.7%	Students' awareness of the Bologna process and the ECTS system.

Source: Author's elaboration

Insofar each component is regarded, we evaluated the degree of saturation of each item and we eliminated all items that saturated from the analysis, at least, more than 40% in more than one item. We evaluated the internal consistency afterwards, by means of the Cronbach Alpha and checked the consistency of the five dimensions with the Alpha ranging between 60% (Social Evolution-4th component) and 95%. (Motivation for choosing the course – 1st component). Then, we checked if they respected the conditions of normalcy, and we studied statistically significant differences of those five dimensions by (i) gender, (ii) student status, (iii) degree course, and (iv) degree course's year students were attending.

The scale features five levels, where the lowest (1) corresponds to "completely agree" and the highest (5) corresponds to "completely disagree". Thus, the lower is the average of each dimension, the closer it is to a positive perception. As three items have an inverted scale, we changed it.

Hence:

(i) Statistically significant differences by gender

Female students are less motivated by their course than male ones, $t(378) = 2.88$, $p = 0.004$, Mean male = 2.21, $sd = 0.78 < \text{Mean female} = 2.48$, $sd = 0.93$.

The opposite happens to the value of Social Evolution favoured by the course completion, $t(378) = 1.99$, $p=0.05$, Female Mean = 3.06, $sd = 0.86 < \text{Male Mean} = 3.26$, $sd = 0.93$.

As for the remaining dimensions we found thin statistically significant differences.

(ii) Statistically significant differences by student status

We found statistically significant differences in the Motivation and Vocation dimensions. Part-time students (ET) are less motivated by choice of course than the full-time students (E): $t(378) = 3$, $p < 0.001$, Mean ET = 2.66, $sd = 1.15 > \text{Mean E} = 2.26$, $sd = 0.78$ and perceive less vocational attractiveness regarding their choice of degree course. $t(378) = 1.28$, $p=0.03$, Mean ET = 2.3, $sd = 1.01 > \text{Mean E} = 2.13$, $sd = 0.82$

(iii) Statistically significant differences by degree course

We resorted to ANOVA to analyse the differences per course.

Hence:

(a) Motivation

We found no statistically significant differences between most of the courses with two exceptions: (i) (PA) where students are more motivated than students pursuing (IB) and (ECON); (ii) students pursuing (IR) are the ones that show greater motivation (Table 4).

Course List	Statistical difference among courses	SD	P values	Course	Mean	SD	Course	Mean	SD
PA-IB	-0.47	0.23	0.04	PA	2.12	0.72	IB	2.59	1.14
PA-ECON	-0.44	0.18	0.01	PA	2.12	0.72	ECON	2.55	0.74
IR-IB	-0.5	0.21	0.02	IR	2.08	1.14	IB	2.59	1.14
IR-ECON	-0.46	0.14	0.01	IR	2.08	1.14	ECON	2.55	0.74

Table 4. Motivation for the Course they pursue

Source: Author's elaboration

(b) Technical Skills

Students pursuing (ECON) value less technical skills. The same happens with those pursuing (SOC), but only in relation to (AP). There are no statistically significant differences between (ECON) and (SOC), but we found significant differences between (ECON) and (PA), (M), (IR) and (LANG) (Table 5).

Course List	Statistical difference among courses	SD	P values	Course	Mean	SD	Course	Mean	SD
PA-ECON	-0.46	0.14	0,001	PA	2.45	0.75	ECON	2,92	0.54
M-ECON	-0.38	0.1	0.01	M	2.54	0.74	ECON	2.92	0.54
IR-ECON	-0.4	0.1	0,01	IR	2.51	0.68	ECON	2.92	0.54
LANG-ECON	-0.31	0.14	0.02	LANG	2.6	0.68	ECON	2.92	0.54
PA-SOC	-0.36	0.18	0.04	PA	2.45	0.75	SOC	2.82	0.7

Table 5. Valorisation of technical skills

Source: Author's elaboration

(c) Vocation

The students pursuing (SOC) are the ones that registered the highest Mean for this variable, which signifies there is a slimmer statistical significance/concordance (Table 6):

Course List	Statistical difference among courses	SD	P values	Course	Mean	SD	Course	Mean	SD
M-SOC	-0.69	0.19	0.001	M	2.05	0.86	SOC	2.74	0.8
LANG-SOC	-0.6	0.21	0.003	LANG	2.15	0.65	SOC	2.74	0.8
IR-SOC	-0.73	0.19	0.001	IR	2.02	0.87	SOC	2.74	0.8
ECON-SOC	-0.56	0.2	0.005	ECON	2.19	0.89	SOC	2.74	0.8
CSc.-SOC	-0.87	0.23	0.001	CSc	1.87	0.70	SOC	2.74	0.8

Table 6. Valorisation of Vocation

Source: Author's elaboration

(d) Social Evolution

The students (table7) pursuing (SOC) and (LANG) are those who seek less for social evolution by means of the course. This dimension outshines in other courses:

iv. Degree Course Year

We did not pinpoint many significant differences between students of the three-year-long Courses. However, first-year students feel more motivated than those attending the third year. So it happens regarding vocation (Table 8).

Course List	Statistical difference among courses	SD	P values	Course	Mean	SD	Course	Mean	SD
M-SOC	-0.53	0.2	0.004	M	3.1	0.9	SOC	3.64	0.9
IR-SOC	-0.66	0.2	0.002	IR	2.98	0.97	SOC	3.64	0.9
IB-SOC	-0.54	0.2	0.004	IB	3.1	0.75	SOC	3.64	0.9
ECON-SOC	-0.56	0.21	0.001	ECON	3.08	0.8	SOC	3.64	0.9
PA-LANG	-0.4	0.2	0.004	PA	3.26	0.86	LANG	3.67	0.83
M-LANG	-0.56	0.17	0.001	M	3.1	0.9	LANG	3.67	0.83
IR-LANG	-0.66	0.2	0.001	IR	2.98	0.97	LANG	3.67	0.83
IB-LANG	-0.51	0.26	0.002	IB	3.1	0.75	LANG	3.67	0.83
ECON-LANG	-0.56	0.21	0.001	ECON	3.08	0.8	LANG	3.67	0.83
CSc-LANG	-0.48	0.22	0.003	CSc	3.18	0.97	LANG	3.67	0.83

Table 7. Valorisation of “Social Evolution”

Source: Author’s elaboration

Course List	Statistical difference among courses	SD	P values	Year	Mean	SD	Year	Mean	SD
Motivation 1 st -3 rd	-0.27	0.11	0.02	1 st	2.26	0.70	3 rd	2.88	0.59
Vocation 1 st -3 rd	-0.31	0.93	0.01	1 st	2.57	0.70	3 rd	2.88	0.59
2 nd -3 rd	-0.37	0.12	0.002	1 st	2.51	0.69	3 rd	2.88	0.59

Table 8. Statistical differences per Degree Course Years

Source: Author’s elaboration

Application to the five Gardner processes

According to Gardner (1983), when the learning process is holistic, teaching contributes to the overall development of the person. He unfolds five guidelines of behaviour for the mind that is: (i) disciplined, (ii), synthetic, (iii) creative, (iv) respectful, and (v) ethical. We aimed at determining if the students' feelings were aligned with Gardner's guidelines. We considered the 6 items which best matched that process, as featured below:

Table 9. List of values, by process of Gardner

Gardner process	Value considered by us	Question of the questionnaire
1st Process A disciplined mind	Autonomy	Question 11 "Valuing autonomous work"
2nd Process A synthetic mind	Technical skills	Question 8 "Develop, essentially, my technical skills"
3rd Process A creative mind	Criativity	Question 18 "Stimulate my creativity"
4th Process A respecting mind	Respect	Question 37 "Respect for people"
5th Process A respecting mind for ethical values	Social commitment and Honesty	Question 51 "Valuing social commitment" Question 45 "Valuing honesty"

Source: Author's elaboration

Our estimated results are:

1. First Process: Disciplined Mind (autonomy):

Full-time students (E) value more autonomous work than part-time students (ET). Hence:

$(E-ET) = -0.54$, $sd = 0,16$, $p = 0.005$, $Mean\ E = 2.27$, $sd = 0.97$ $< Mean\ ET = 2.81$, $sd = 1.18$

An analysis by course, allows for pinpointing significant differences only between (SOC) and (CSc) and between (M) and (CSc), where autonomous work is more valued in this course in relation to those two, thereby shedding light upon the following differences:

$(CSc-SOC) = -0.68$, $sd = 0.28$, $p = 0.02$, $Mean\ CSc = 1.96$, $sd = 0.89$

$(CSc-M) = -0.44$, $sd = 0.22$, $p = 0.05$, $Mean\ M = 2.4$, $sd = 1.01$.

2. Second Process: Synthetic Mind (technical skills):

First-year students value more technical skills than third-year students: $(1^{st}-3^{rd}) = -0.35$, $sd = 0.13$, $p = 0.009$, $Mean\ 1^{st} = 2.43$, $sd = 0.96 < Mean\ 3^{rd} = 2.78$, $sd = 0.99$

An analysis by course, unveil that students pursuing (M) seem to value more this item than those pursuing (ECON) and (IB):

$(M-ECON) = -0.43$, $sd = 0.16$, $p = 0.008$, $Mean\ M = 2.32$, $sd = 1.03$

$(M-IB) = -0.54$, $sd = 0.23$, $p = .02$, $Mean\ IB = 2.86$, $sd = 0.79$

3. Third Process: Creative Mind (creativity)

Evidence unfolds major differences, statistically significant, both by course and by years. The course (ECON) is the one which values less, whereas (CSc) values more creativity. Results are summarised below:

Table 10. Creative Mind

Course List	Statistical difference among courses	SD	P values	Course	Mean	SD
CSc-SOC	-0.78	0.1	0.01	CSc	2.3	1.24
CSc-M	-0.53	0.24	0.03	M	2.83	1.1
PA-ECON	-0.5	0.23	0.03	PA	2.72	1.06
M-ECON	-0.38	0.18	0.03	ECON	3.22	0.91
L-ECON	-0.49	0.22	0.03	L	2.73	1.09
IR-ECON	-0.53	0.19	0.005	IR	2.69	1.15

Source: Author's elaboration

If we undertake an analysis by course years, it is the first year that values less the stimulation of creativity in relation to sophomore (2nd year) students. Yet, if we compare them to the third-year student, they valued it more.

$(2^{nd}-1^{st}) = -0.39$, $sd = 0.15$, $p = 0.009$, $Mean\ 2^{nd} = 2.43$, $sd = 1.18 < Mean\ 1^{st} = 2.82$, $sd = 1.08$

$(1^{st}-3^{rd}) = -0.34$, $sd = 0.15$, $p = 0.02$, $Mean\ 1^{st} = 2.82$, $sd = 1.08 < Mean\ 3^{rd} = 3.16$, $sd = 0.96$

4. Fourth Process: Respecting Mind (respect)

The students attending (ECON) and (M) are those who value less this item as opposed to those attending (IR). The differences are summarised below:

(IR-M) = -0.64, sd = 0.18, p = 0.01, Mean IR = 1.87, sd = 1.09
 (IR-ECON) = -0.64, sd = 0.18, p = 0.02, Mean ECON = 2.51, sd = 1.07
 Female students are those who value this item the most (gender-based difference)
 (m-f) = -0.31, sd = 0.13, p = 0.03, Mean m = 2.18, sd = 1.11 < Mean f = 2.49, sd = 1.31.

5. Fifth Process: Ethical Mind (social commitment and honesty)

A gender-based analysis shows that female students value more social commitment and honesty. Hence:

Social Commitment (m-f) = -0.34, sd = 0.11, p = 0.003, Mean m = 2.17, sd = 0.99 < Mean f = 2.51, sd = 1.11

Honesty (m-f) = -0.38, sd = 0.12, p = 0.005, Mean m = 2.27, sd = 1.22 < Mean f = 2.65, sd = 1.3

In a course-based analysis, (PA) and (IR) are those who value more these items, whereas students studying (ECON) seem to value less.

The differences for Social Commitment are:

Table 11. Social Commitment

Course List	Statistical difference among courses	SD	P values	Course	Mean	SD
PA-ECON	-0.68	0.22	0.02	PA	1.94	0.89
PA-M	-0.43	0.2	0.04	M	2.37	1.15
PA-IB	-0.63	0.28	0.03	IB	2.57	1.17
IR-ECON	-0.55	0.18	0.002	IR	2.08	0.94

Source: Author's elaboration

The differences for honesty are:

(PA-ECON) = -0.74, sd = 0.21, p = 0.02, Mean PA = 2.03, sd = 1

A Course-year-based analysis, shows that first-year students value more both Social Commitment and Honesty as compared to the third-year students. The results are summarised below:

Social Commitment results:

(1st-3rd) = -0.43, sd = 0.14, p < 0.001, Mean 1st = 2.21, sd = 1.04 < Mean 3rd = 2.63, sd = 1.02;

(2nd-3rd) = -0.4, sd = 0.18, p = 0.03, Mean 2nd = 2.23, sd = 1.06 < Mean 3rd = 2.63, sd = 1.02.

Honesty results:

$(1^{st}-3^{rd}) = -0.39$, $sd = 0.15$, $p = 0.02$. Mean $1^{st} = 2.27$, $sd = 1.25$ < Mean $3^{rd} = 2.66$, $sd = 1.02$

Discussion of results

This study is a reflection on a particular case, therefore, our results should not be generalised, just as Silva (2013) did when he addressed the implications of the Bologna Process in Portugal and Spain. However, we hope that the information hereby produced will help to clarify the actual guidelines of the Bologna Process, making it more useful and interesting while an instrument of structural reform of higher education.

In this light, our contributions to a reflective discussion are summarised below:

1. An image and communication strategy should be in line with the other variables, otherwise, it will not allow for consistency and sustainability of the academic success, and it will generate negative external economies on the performance of the Bologna Process. Evidence shows students ignore some elements of the process (more than 50% of the respondents do not know what are the ECTS, when the process was implemented and in 2015). Hence, the question is: why such lack of awareness and who shall endorse the responsibility? Results show that the communication University-students about the Bologna process is somewhat poor, which may have negative consequences on the overall performance of the students, namely in terms of learning outcomes and acquisition of skills, which does not involve them in the process nor makes them responsible for their own learning process. (Tejada and Ruiz, 2016).
2. In a scenario of change all actors and institutions are affected (Tejada and Ruiz, 2016), which calls for continuous adjustments. But, considering a ten-year long Bologna experience in Portugal, the question is: were the adjustments within universities visible and structural, as claimed by the Bologna Declaration? Teachers attempted to engage students in the new process, introduced innovative teaching technics and were sensitive to new teaching-learning methodologies centred on students' skills? (Blanco *et al.*, 2012; Ion and Cano, 2012). Do students know and feel committed to an ever more demanding process in terms of workload and expected results? As the results unveil a slim awareness about Bologna,

students do not feel involved in the reform. And yet, the whole process increased greatly the amount of work to be performed both by teachers and students (Silva, 2013).

3. Has the implementation of the Bologna reform embedded a humanistic concern? Have teachers committed themselves with the Bologna rationale? Traditionally, the educational process focuses on the students' academic performance (Ferreira, 2013; Santos Alvarez and Garrido Samaniego, 2015), although the Bologna Reform intended to break with that limited perspective. Has that goal been achieved? How do students feel toward the dichotomy emanating from Bologna, since, on the one hand, it underlines the importance of a student-centred education concept; on the other hand, it focuses upon a labour productivity principle and the logic of the market (Leite and Ramos, 2015)? If there is not a change of perspective, one might think the university is but replicating traditional models' principles. If the University continuous on focusing upon the student's academic performance, will it not be combining different types of benefits, such as conceptual, procedural and attitudinal benefits (Santos Álvarez and Garrido Samaniego, 2015)? As for the students, and their academic performance, to what extent are they deriving academic satisfaction? Regarding the undergraduate degree programme students are pursuing, evidence sheds light upon a slim (median) motivation, outshining for females, which may have negative impacts on attitudes and behaviour we deem essential for the social cohesion fabric (see Ibáñez-Martín *et al.*, 2012).
4. Our research highlights students value less technical skills (Economics and Sociology). This feeling converges to those studies which defend students should not be hostages, only, of the so-called instrumental and technical skills, because these may satisfy the whims of the dominant economic model. Nonetheless, there are courses such as Economics, which value less a creative mind. In this light, would a poor creative and entrepreneurial spirit, in particular for the resolution of everyday problems and stress management, hinder these students back from breaking out the routine practices and statism? Regarding the importance of plasticity of competences, our results are consistent with those of Blanco *et al.* (2012). It is interesting to say that interpersonal skills take on highly significant values, going from 77% to 89% of the pre-test to the post-test, respectively, as with the cognitive skills which decrease from 29% to 15% of the pre-test to

the post-test. Even the work performed by these authors defend that empathy, problem-solving and collaboration-cooperation, tend to increase from pre-test to post-test, which highlights the importance of soft skills.

5. Education is a most relevant process in the production of skills (Ibáñez-Martín *et al.*, 2012); Pereira and Coutinho, 2009), namely in what concerns social cohesion. According to these authors there is a qualitative relationship and equally important between the Bologna process and the production of skills. Nevertheless, on the assumption that students pursuing Economics and Management degrees value less the importance of possessing a respectful mind, would this have a preverse impact upon on social stability and cohesion? Data also unveil that women are those who appreciate more a "respectful mind", will not they be more prepared for a fully professional and social performance than men? These findings indicate the urgent need to rethink the implementation of the Bologna process, whilst rendering the process more efficient and attractive.
6. Insofar equal opportunities are concerned, the social dimension is important and it is another aspect of the Bologna process; however, it requires an in-depth awareness, (Egido Gálvez *et al.* 2014). But, our study is consistent with the assumption that females are those who value more social commitment, honesty and respect. Also, students pursuing the third year, as compared to those pursuing first year, value less social commitment and honesty. Does this feeling result from neglect in the transversal related domains? In the light of these results, how are we to consider European solidarity, when, in the everyday life of the universities, the social dimension of the European area of higher education, is rather neglected? With such data one can think that universities are failing to fulfill their role as builders of a new society, or to make a contribution to social change.
7. Another issue to address are the Post-labour Degrees, which have been designed to meet social expectations. And yet, based on the assumptions of the market economy, who has access to such courses? In this type of economy, full-time students who hold higher school rankings are in a privileged situation *vis-à-vis* students already inserted in the work market, many of which are mature and need to deepen their professional skills. Hence, one may ask: are the post-labour courses fulfilling their social purpose? Isn't free competition kicking from the formal education system mature students, poorly

schooled and holding severe gaps regarding their skills? Evidence sheds light upon poorly motivated part-time students. They also value much the importance a disciplined mind. And yet, there is no political courage to address this matter.

8. What should Universities do to become an instrument of inclusion? This is a rather sensitive issue but important to social change and to render the University a co-creation tool, thereby opening paths of universality (Herrán, 2011). Although education is an energy of excellence of mankind, man will continue on in ignorance if education does not aim at self-knowledge, because education is not partial, self-centred, profitable nor closed in itself (Herrán, 2011), but rather, it nurtures the maturity of the person and universal citizenship. But, in modern times University based upon the redefinition of an education to universality, to facilitate human global development and to contribute to a deeper and more cohesive universal citizenship? These questions are consistent with Herrán's thought (2011), when he says that the problem of our times is not terrorism, but poverty, ignorance and misery. In this sense, why is our education system subjected to the traditional axioms of the dominant economy, which prevents man's personal and social development?
9. The Bologna process points to the learning of personal and social skills, based upon autonomy, emancipation and academic freedom (Leite and Ramos, 2015)? However, according to Herrán (2011), the current society's problems are: (i) difficulty in recognising our ignorance, despite of our being very ignorant, (ii) difficulty in equating our personal interest with the idea of a greater good (selflessness); (iii) difficulty in feeling humanity and (iv) difficulty in feeling part of humanity. Hence, why is University a dim player in these aspects? Aren't the driving forces of the market economy, as we know it today, hindering back the process, on behalf of specific subjective objectives?
10. There is an urgent need to implement a curricula reform, putting in evidence the "humility" to develop the entrepreneurial spirit and skills for the enhancement of the socialisation process (Sobrado and Fernández, 2010). However, we still perceive a submissive role of the University to the traditional axioms and objectives of a poorly developed society and socially biased. In this respect, Tejada (2012) says that the concept of skills/competencies is inseparable from the concept of development and Blanco *et al.* (2012) understand that the

acquisition of skills depends on the ability and the attitude to use knowledge. In this light, in an education system, higher education must undertake to produce comprehensive and not just specific skills, because competencies in education may not be restrict to the development of physical and motor skills. In this sense, humility is an essential feature for the development of skills at the level of mankind's being, be, do, learn, apply, share and socialise.

Conclusion

Overall, our results unfold that: (i) students have a very blurred knowledge of the EHEA, (ii) do not know if the Bologna process calls for autonomous work, or what is an ECTS, (iii) the motivation and vocation for the course they are pursuing are barely visible, (iv) females are more sensitive to the importance of soft skills, (v) the values of autonomy, respect for others, honesty and social commitment, are valued by students, albeit with visible differences between both genders and degree courses, (vi) generic skills are more valued than the technical ones, (vii) ineffective internal communication within University, (viii) overall, students demonstrate sensitivity and respect for the Gardner's five processes.

Hence, there is an urgent need to address the kind of communication the University is keen on establishing with students and the surrounding community, because an in-depth knowledge of the Bologna process builds awareness and renders students responsible for their educational process and for the reconstruction of the EHEA. But, as most students are not familiar with the ECTS concept and what it represents while a credit unit, they will have difficulties in designing, prioritising and properly manage their tasks, in particular as regards the autonomous workload they should devote to each course unit.

As students show sensitivity to the five processes of Gardner, regrading their overall self development, we think they are the ingredients essential to more effectively apply the Bologna process, whilst rendering the University a platform for sustainable development and making it an institution of co-creation and social metamorphoses.

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Appendix

Annex A

What is an ECTS credit unit (European Credits Transfer System)?

Year	Response options	Answers		
		n	%	% Accumulated
2008	It is a unit that measures the work performed by the student	49	16.3	16.3
	It is the weight of a course unit	143	47.5	63.8
	Does not know	109	36.2	100.0
	Total	301	100.0	
2009	It is a unit that measures the work performed by the student	29	19.1	19.1
	It is the weight of a course unit	68	44.7	63.8
	Does not know	55	36.2	100.0
	Total	152	100.0	

Source: Author's elaboration

Annex B

What is an ECTS?

<i>Year</i>	<i>Questions</i>	<i>Yes</i>		<i>No</i>		<i>Does not know</i>	
		(n)	(%)	(n)	(%)	(n)	(%)
2015	It is a unit that measures the work performed by the student	143	37.6	60	15.8	177	46.6
	It is the weight of a course unit	232	61.1	16	4.2	132	34.7

Source: Author's elaboration

Annex C

Does the EHEA stimulate the students to perform independent work?

<i>Year</i>	<i>Response options</i>	<i>Answers</i>		
		Frequency	%	% Accumulated
2008	Yes	120	39.9	39.9
	No	24	8.0	4.8
	Does not know	157	52.2	100.0
	Total	301	100.0	
2009	Yes	78	51.3	51.3
	No	6	3.9	55.3
	Does not know	68	44.7	100.0
	Total	152	100.0	

Source: Author's elaboration

Annex D

Does the EHEA aim at smoothing/harmonising studies at European level

Year	Response options	Answers		
		Frequency	%	% Accumulated
2008	Yes	118	39.2	39.2
	No	11	3.7	42.9
	Does not know	172	57.1	100,0
	Total	301	100.0	
2009	Yes	43	28.3	28.3
	No	2	1.3	29.6
	Does not know	107	70.4	100.0
	Total	152	100.0	

Source: Author's elaboration

Annex E

I understand that the EHEA

Year	Question	Yes		No		Does not know	
		(n)	(%)	(n)	(%)	(n)	(%)
2015	Aims at smoothing studies at European level	197	51.8	24	6.3	159	41.8
	Emphasises the student's autonomous work	203	53.4	20	5.3	157	41.3

Source: Author's elaboration