

Employability of Graduates & Higher Education Management Systems

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Employability and competences of university graduates in Italy

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Abstract. Since 60% of Italian Bachelor graduates enroll immediately in a Master programme, the public often assumes that this is a consequence of very limited employment opportunities for these graduates. We show that this is contradicted by existing data on the employment rate of graduates that show a small difference in the employment rates of Bachelor and Master graduates. Bachelors who only looked for a job right after graduation have a high rate of employment, while many of those who enrolled in a Master programme are also working. However, employers often remark that university graduates are well prepared in their disciplines, but lack general competences. By analyzing the responses to a questionnaire sent to heads of university programmes, we investigated the general competences indicated as learning outcomes in the curricula offered by Italian universities. We present here some of our results.

1. Context

The restructuring of university degrees into two levels, followed by a third one, the Doctorate, with different characteristics, was decided within the Bologna Process, an initiative started in 1999 for the realization of a European Higher Education Area (EHEA). In Italy this began with the decree of the Ministry of Education (D.M.) 509/1999, partially modified by D.M. 270/2004. The new structure is present in every Italian university since 2001.

In this paper we do not analyze all issues related to the Bologna Process but some problems related to the employability of Italian graduates. Our analysis does not simply look at the quantitative results but also at qualitative issues, since the main issues related to the employment situation of graduates are not due to the achievement of a Bachelor instead of Master degree but to the lack of general competences in both groups. This was evident, for example, at a meeting organized by CARED at the University of Milan Bicocca in May 2011 between entrepreneurs and academicians (<http://www.cared.unige.it/Allegato1Rapporto09062011.pdf>) as part of this research. Analogous results are found in other reports (Fondazione Agnelli, 2012; Leoni, 2011).

Those who hire university graduates are satisfied with their disciplinary knowledge, but find at the same time that they lack many of the competences required to work in production and service industries. These competences include the ability to work in teams and to communicate effectively: this suggests that the university should modify some of the traditional approach to teaching and learning. We believe that this is the real challenge of the Bologna Process and of

*The paper, and more specifically sections 1 and 5, stem from a joint work of all authors. The sections 2 and 3 are more specifically due to S. Mangano, the section 4 to S. Mangano and M.T. Pieri.

the employability of graduates, and for this reason we have developed the survey described below.

In the European countries for which we have data the employment rate of Bachelor graduates is only slightly lower than the one of Master graduates (Schomburg and Teichler, 2011)¹. However, the different procedures used in the collection of these data recommends caution when making comparisons (Teichler, 2009). Overall analyses of employability of **B** and **M** graduates may be found in EHEA reports (EHEA, 2012; § 5.4) and in networks as REFLEX (Allen and van der Velden, 2011) and DEHEMS (www.dehems-project.eu).

In Italy the employment situation of Bachelors (**B**, the official name of the degree is 'laurea') has been, and still is, quite controversial. More than half of Bachelor graduates pursue a Master programme (**M**, called in Italy 'laurea magistrale'), and many blame for this the low level of employability of **B**. The public was also led to believe by unfounded claims that Bachelor graduates are not employable at all, the only exception being graduates in health fields.

In section 2 we combined the data collected by AlmaLaurea and STELLA², and that collectively include over 80% of **B** and **M** graduates in Italy, to build a quantitative picture of the employment of 2009 graduates one year after graduation. We compared these results with the employment rate of young Italians. Then, we added the results available from AlmaLaurea for 2010 **B** graduates one year after graduation divided in specific categories (section 3).

We also present preliminary qualitative results on the general competences of graduates collected from a questionnaire submitted to over 1.800 heads of programmes. In Section 4.1 we describe the first part of the survey designed to verify how the structuring of programmes has considered learning outcomes, as described through the Dublin Descriptors, and the recommendations of stakeholders. In Section 4.2 we verify if the acquisition of general competences is included in the course objectives as described through the Dublin Descriptors, and how these were achieved. In the conclusions (Section 5) we summarize the observations and our results, highlighting issues that should be discussed further in more detail.

2. Graduates with employment

Table 1 includes the percentages of 2009 **B** and **M** graduates one year after graduation obtained by combining the results of AlmaLaurea and STELLA weighted for the different sample sizes.

Table 1: Employment conditions of 2009 B and M Graduates (% on the total)

Categories B		Categories M	
Is working, total	42,1	Is working	52,7
<i>works and is not attending a M course</i>	27,6		
<i>works and is attending a M course</i>	14,5		
Doesn't work, is not attending a M course, but is looking for a job	9,1	Doesn't work, but looks for a job	25,2
Doesn't work and is attending a M course	45,0		
Doesn't work, is not attending a M course, and is not looking for a job	3,9	Doesn't work and doesn't look for a job ⁽¹⁾	22,7

Source: our own analysis based on AlmaLaurea, STELLA.

⁽¹⁾ It includes graduates attending post-graduate courses.

¹ See also Colombo and Bellani (2009).

² These are two University consortia that collect data on university graduates on a yearly basis. In 2009, 54 of the 81 Italian universities were included in AlmaLaurea; nine of them in STELLA, six of which in the Lombardy Region.

More than 42% of **B** graduates is employed one year after graduation; some of them are both working and pursuing a **M** degree. However, a substantial percentage of graduates (27,6%) are only working. The employment situation of **M** graduates is about 10% better than **B** graduates. Using the same variables for individual disciplines, there are significant differences as shown in the CARED study “*Laureati “puri” di primo livello: l’occupazione in molti casi c’è*” (<http://www.cared.unige.it/OccupazioneLaureatidiprimolivelloanno2009.pdf>) (“*Pure*”³ Bachelor graduates: in many cases there is employment”).

The global and Italian economic crisis of the last years has certainly influenced the occupational trend of graduates. Since there are significant differences in the behaviour, we discuss the trends over three years separately for AlmaLaurea and STELLA (Table 2).

Table 2: Trend of employment conditions of 2009 B and M Graduates (% on the total)

Categories B	AlmaLaurea			STELLA			Categories M	AlmaLaurea			STELLA		
	2007	2008	2009	2007	2008	2009		2007	2008	2009	2007	2008	2009
Is working, total	42,4	42,0	43,1	45,0	37,2	38,1	Is working	58,9	53,3	51,4	68,0	61,8	58,0
<i>works and is not attending a M course</i>	26,2	27,2	27,3	33,9	27,6	28,6							
<i>works and is attending a M course</i>	16,2	14,8	15,8	11,1	9,7	9,5							
Doesn't work, is not attending a M course, but is looking for a job	6,5	8,6	9,4	5,8	7,6	7,8	Doesn't work, but looks for a job	18,8	24,9	27,8	10,3	14,6	14,7
Doesn't work and is attending a M course	48,2	46,4	44,3	44,2	50,3	47,8							
Doesn't work, is not attending a M course, and is not looking for a job	2,8	3,0	3,3	5,1	4,9	6,3	Doesn't work and doesn't look for a job ¹	22,3	21,4	20,8	21,7	23,1	27,3

Source: own elaboration based on AlmaLaurea, STELLA.

¹ It includes graduates attending post-graduate Courses.

From 2007 to 2009 the employment rate of **B** is stable in AlmaLaurea but decreases in STELLA; for **M** graduates it decreases in both groups of data, more heavily in STELLA. The difference in employment rates of **B** and **M** has decreased, not much in the STELLA data but more significantly in AlmaLaurea where the difference decreases from 16,5 to 8,3%.

The rapid decrease in the STELLA values could have suggested that the 2007 economic crisis affected more significantly Lombardy, the area preferentially covered by this dataset; Lombardy is the most economically developed Italian region, where the percentage of **B** working without being enrolled in a **M** programme, and working **M** graduates has always been higher. This hypothesis was confirmed by the analysis of results from the universities in Lombardy included in STELLA in the three years.

There is a complete agreement between these trends and the rate of employment in the population between 18 and 29 years of age collected by the National Institute for Statistical Data (ISTAT). In 2007 48% of young Italians are employed; in 2009 only 44%. In Lombardy the employment rate in this age group went down from 62,1% in 2007 to 57% in 2009.

³ In this study we exclude from the **B** category “hybrid” graduates, i.e. those who started in the old, one-tier system and then transferred to the new one; in 2009 this represented 6,9% of 2009 graduates in AlmaLaurea.

3. More data on Bachelor graduates

We have access to the AlmaLaurea data also for 2010 graduates. This population represents more than 68% of the **B** graduates of the entire country. They are more or less evenly distributed across the country and, therefore, give an accurate picture of the Italian situation, with the exception of the underrepresented area of Lombardy. In Table 3 we show the total numbers of graduates in each of the categories: we will discuss the categories present in the last rows. Also the smaller numbers are high, supporting the significance of the percentages that we will discuss later. In this table and the next ones we show also the values obtained excluding graduates from health programmes (e.g., nursing), since they are highly specialized professional programmes with high level of employment. Therefore, we are interested in evaluating the situation when these graduates are excluded from the analysis.

Table 3: 2010 Bachelor Graduates

	National Total	Total without Health group
Number of interviewees	88.958	78.902
Is working, total	37.055	29.685
<i>Works and is not attending a M course</i>	23.877	16.693
<i>Works and is attending a M course</i>	13.178	12.992
Doesn't work and is attending a M course	39.269	39.047
Never enrolled in post-Bachelor programmes ¹	34.296	24.854
Never enrolled, working	22.846	15.775
Never enrolled, not working at graduation	20.192	13.046
Never enrolled, not working at graduation, now working	11.453	6.361

Source: AlmaLaurea.

¹ Most frequently it is a **M** programme, but it could be a second **B** degree or an AFAM (Academy of Fine Arts or Music Conservatory).

Economic development is uneven in Italy, the South being much weaker; therefore, we expected regional differences in the employment rates. Results are shown in Table 4.

Table 4: Employment situation of 2010 B Graduates in the three geographical areas of residence shown as percentages, irrelative of the location of the universities

Categories	Whole Population						Without graduates in Health fields				
	<i>To make a comparison: National 2009</i>	National ¹	North	Center	South	Δ^2	National ¹	North	Center	South	Δ^2
Is working, total	43,1	41,7	49,2	43,3	32,7	16,6	37,6	45,2	40,3	27,8	17,3
<i>works and is not attending a M course</i>	27,3	26,8	32,8	25,9	21,0	11,9	21,2	27,1	21,0	14,7	12,4
<i>works and is attending a M course</i>	15,8	14,8	16,4	17,4	11,7	5,7	16,5	18,1	19,2	13,2	6,1
Doesn't work and is attending a M course	44,3	44,1	39,1	42,7	50,3	11,2	49,5	43,4	47,6	57,2	13,8

Source: AlmaLaurea.

¹ It also includes the small number (0.5%) of graduates with residence abroad.

² Difference between the highest and lowest regional percentage.

For comparison, we show in Table 4 also the national percentage for 2009. The decrease in the last year corresponds to the decrease from 44% to 42% of the employment rate in the age group between 18 and 29 years. On the other hand, in the last year there was a slight increase (from 51,4 to 52,1%) of the employment rate of **M** graduates.

Looking at the employment rate of Bachelor graduates, we notice a substantial difference between North and South. While the difference was expected, its magnitude was higher than expected: more than 16% for the whole population, increasing to more than 17% when we excluded graduates in Health fields.

Similar results, albeit with somewhat lower differences, are seen for graduates who are only working and not attending a Master programme. Understandably we notice in the South the highest numbers of graduates attending a Master programme and not working: more than 11% higher than in the North, where we find the lowest values, and almost 8% more than residents from central areas.

In the two groups of Bachelor graduates (with and without graduates from Health fields) we have further broken down the regional results by subject area (Table 5).

Table 5: Employment of different categories of 2010 B Graduates, by geographical area and by subject

	Table 5.A					Table 5.B				
	% of working B graduates of those not pursuing post-graduate degrees					% of working B graduates of those not working at graduation and not pursuing post-graduate degrees				
	National ¹	North	Center	South	Δ^2	National ¹	North	Center	South	Δ^2
Total	66,6	74,9	66	56,4	18,5	56,7	66,3	54,3	48,5	17,8
Subject area										
Agriculture	66,7	77,5	59,5	49,7	27,9	55,9	69,3	50,8	33,7	35,5
Architecture	59,4	67,0	60,8	46,2	20,8	45,7	56,3	44,5	33,0	23,2
Chemistry, Pharmacy	65,0	78,0	69,6	48,8	29,2	57,5	73,9	66,7	41,3	32,7
Economics, Statistics	66,3	74,4	66,4	52,9	21,5	52,1	63,4	51,6	36,3	27,1
Education	69,0	82,7	74,7	51,9	30,8	49,6	67,8	49,2	39,0	28,9
Engineering	72,4	78,8	71,2	62,1	16,7	64,8	72,1	63,1	55,1	17
Foreign Languages	59,2	65,8	58,1	47,5	18,2	50,1	58,1	44,9	41,0	17,1
Geology, Biology, Geophysics	54,5	64,0	55,7	36,7	27,3	42,4	53,2	46,8	26,4	26,8
Humanities	56,2	62,1	57,9	44,4	17,7	40,2	46,7	42,4	29,6	17,2
Law	61,9	69,7	68,0	46,6	23,1	39,2	50,6	26,5	28,0	24,1
Mathematics, Physics, Computer Science	75,3	81,7	78,1	67,5	14,2	67,4	75,2	64,5	60,8	14,4
Medicine	74,9	85,8	69,9	67,7	18,1	71,3	82,6	65,8	65,2	17,4
Physical Education	78,3	83,4	79,2	67,3	16,1	54,4	64,2	56,8	40,7	23,5
Politics, Social Sciences	60,1	68,9	62,1	47,8	21,1	41,6	51,7	43,8	31,3	20,5
Psychology	62,6	70,2	71,7	46,3	25,4	39,2	46,5	46,8	30,1	16,7
Total without Health graduates	63,5	71,7	64,5	50,7	21,0	48,8	59,2	47,7	37,3	21,9

Source: AlmaLaurea.

¹ It also includes graduates with residence abroad (0,5%).

² Differences between highest and lowest regional percentage.

Table 5A includes working graduates who are not pursuing a post-graduate degree and decided to seek employment after completion of a Bachelor degree. These graduates viewed their degree as sufficient to prepare them for the labour market rather than as an intermediate step in their academic career. There are modest differences between subject areas at the national level: highest values are shown for graduates in Physical Education, Medicine, Math/Physics/Computer Sciences and Engineering (>70%) and lowest for graduates in Geology/Biology/Geography and the Humanities (around 55%). In the other fields the employment rates vary between 59 and 69%.

Looking at the regional distribution, the highest values, with the exception of one subject area, are found in the North and the lowest values in the South. In some instances the differences are substantial, with a total regional difference of more than 18%. Looking at graduates residing in the South where the issues related to employment of young people are dramatic, over 56% of all graduates (including the Health field) are employed less than one year after graduation; excluding Health professions, the percentage decreases to 51%.

Table 5B shows the employment situation of working graduates who were not working at the time of graduation and not pursuing further studies. The rates of employment are high, only slightly lower than the values shown in Table 5A. The national values are close to 57%; 49% if we exclude graduates in Health fields. There is some variability in the subject areas: three groups (Health, Science, and Engineering) are above 64%, the others are between 58% and the minimum value of 39,2% in the Law and Psychology groups. In summary, the majority of the **B** graduates who decide to find a job after graduation find it in less than a year.

The regional differences are substantial both in the total values and in each subject area. The total number without the Health field is 10% lower in the South than in the Center, which is 11% lower than the North. In all subjects, with the exception of Law, the lowest values are found in the South and the highest ones in all subjects in the North. However, even in the South and without including the health fields 37,3% of **B** graduates find a job in less than a year if they look for it; this percentage is higher than 50% not only in the Health field but also in Sciences and Engineering.

4. A survey designed for heads of degree programmes

As pointed out above, the issue of graduate employment is related to the quality of the design of degree programs and specifically:

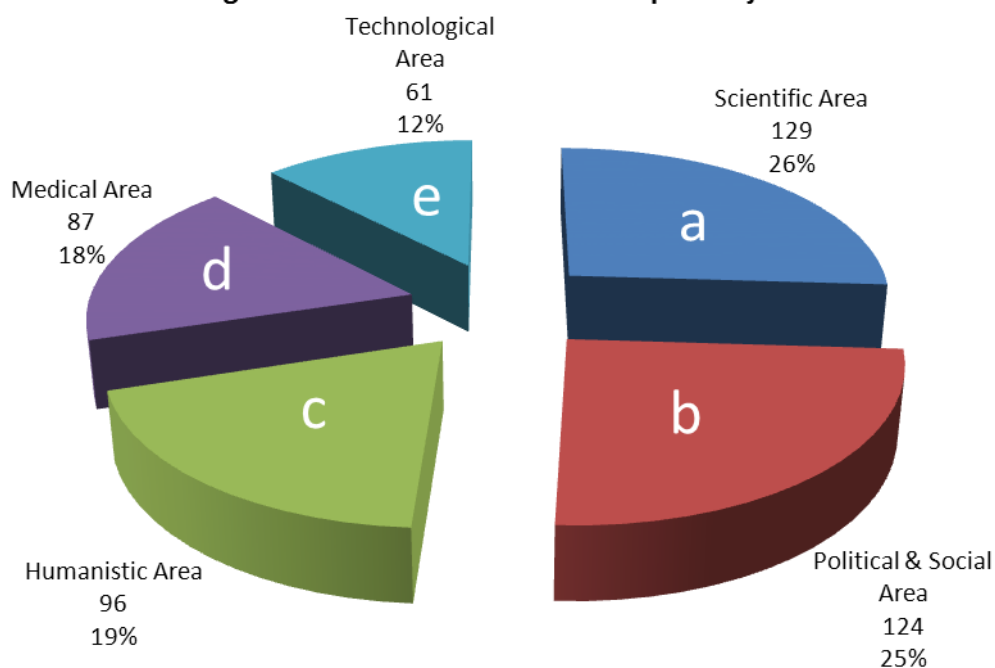
- A) to the correct formulation of formative outcomes, and
- B) to the presence of adequate opportunities to develop general competences.

We have, therefore, submitted a questionnaire to the heads of the **B** and **M** degree programmes at Italian universities. Since there is no available list of them, we first had to search for their e-mail addresses. We found them for 42 of the 75 Italian universities that offer **B** and **M** programmes⁴. The 1.834 questionnaires sent to the heads of degree programmes at these universities cover about 49% of all the programmes offered in Italy.

The questionnaire was developed with the CAWI methodology and was online from 18/01/2012 to 31/03/2012. Answers came from 395 Heads of programmes, a response rate of 22%; the questionnaires filled in have been 488, as sometimes the same person is in charge of more than one programme. 57% questionnaires come from northern universities, 27% from central universities. Looking at the distribution on the five areas in which subjects are grouped for statistical purposes in Italy (Figure 1), the distribution of responses is quite even.

⁴ Among the 81 Universities, 6 offer only Doctorate or other programmes.

Figure 1: Distribution of answers¹ per subject Area



¹ The total number of responses included in this graph is 497 and not 488 because 9 of the responses are from programmes that belong to two different areas and are therefore counted twice.

The complete analysis of the responses is ongoing and will be included in a specific report. Here we highlight some of the more significant results that we have already obtained.

4.A Objectives and Dublin Descriptors

Each university programme is organized in Courses (**C**) and Other Learning Activities (**OLA**: laboratories, internships, drafting of a graduation paper, etc.); Italian law mandates that its objectives should be described using the Dublin Descriptors. One of the questions asked if the design of the programme included information on how each **C** and **OLA** contributed to each objective. Most of the responses showed how unclear is the use of the Dublin Descriptors. Very few cited the use of matrices or tables, some referred to the course organization, but most responses merely listed descriptors, activities, and expected learning outcomes. Only few programmes show that they have examined in detail the specific contribution of each **C** and **OLA** to the overall objectives of the programme.

The responses to the question on the use of suggestions coming from meetings with employer representatives for the planning and implementation of programmes were more positive. This has resulted in the recommendation on courses, but mostly labs and practica, identified as useful, and on the relevance to be given to different subjects in terms of ECTS credits. In some universities were established programme committees, consisting of staff members and representatives from stakeholders, that guarantee an ongoing dialogue between the academic and the outside world.

Potential employers have also made specific requests on competences that need to be strengthened. In some cases these are specific professional competences within the main subject area, e.g. professional accounting and business evaluation in a programme of economics and business management. In other cases the suggestions are for competences that are thought to

be relevant as additional knowledge like industrial management systems, management of chemical industries, environmental and safety control, and marketing of chemical industries in a programme of chemical science and technology. In other cases the suggestions are for generic competences like reading and interpreting complex texts, the ability to write different types of texts designed for various audiences, development of critical thinking, analytical and synthesis abilities, logical approach to various problems and situations, familiarity with ordinary, technical, and computer languages. A good knowledge of foreign languages, often but not only English, was a unanimous request.

It is interesting to note that some companies have shown to appreciate graduates with a broad and interdisciplinary training based, e.g. on a solid foundation of math (20 credits), physics (70 credits), chemistry (60 credits) in a programme in physical science and technology.

In some cases the suggestions, albeit valid, countered ministerial requirements for the organization of degree programmes. For example, they requested to increase the availability of curricula that differed in the third year of the Bachelor, something made extremely difficult by a decree of September 2010, which restricts flexibility.

We asked also if there had been further interaction with external representatives to discuss the progress and outcomes of the degree. Most of the responses were positive but generic. In some cases there were useful clarifications specifically for internships and programme monitoring.

Plan changes, requests for new openings, and systematic feedback were involved in internships. The assessment of the first results compared to the initial plans to suggest changes and/or review of rules concerned mostly the progress in enrollment and the monitoring of the temporal agreement of objectives and curricula with the evolution of technology and requests from the labor market. Surveys of graduates and potential employers were used to identify expectations and information on the how the graduates were included in the job market. The responses also gave interesting information on the kind of initiatives that involved the stakeholders, e.g. collaborative courses and labs, sharing of labs, regular seminars by industry representatives, theses resulting from internships, cultural events and initiatives to promote programs, agreements with professional organizations to receive credit for certain activities required for board exams, survey of alumni to identify positive and negative aspects of the degree program as well as deficiencies relative to issues encountered in the work environment.

4.B Generic competences

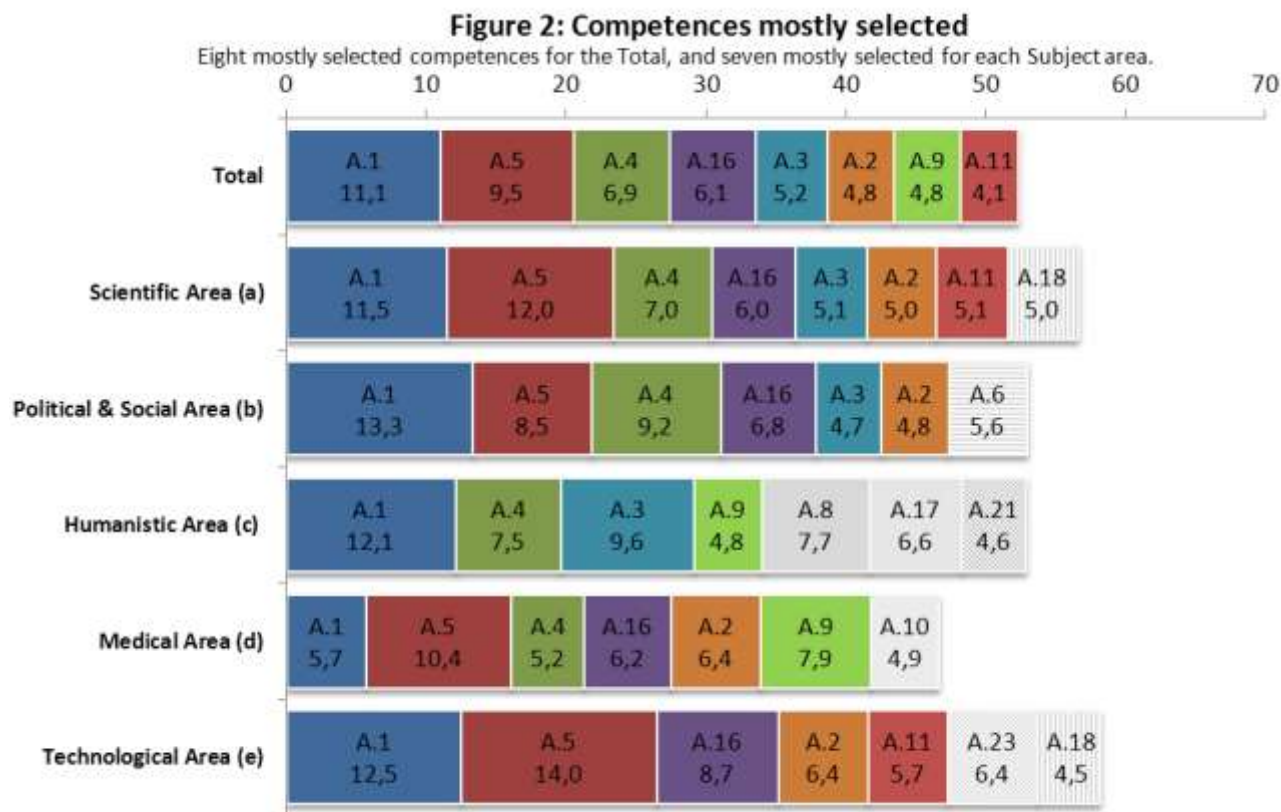
The second part of the questionnaire concerned generic competences. Respondents were asked to select from a list of 44 the five main competences that their programme aims to provide to their students. The most commonly selected competences are shown in Table 6, which includes the eight more commonly cited competences as well as the seven most cited ones in some of the five subject areas. There were 2.209 selections of competences.

Table 6: Occurrences of the 15 competences that appear in the top 8 for the Total or in the top 7 for at least one Subject area¹

		Total		Scientific Area (a)		Political & Social Area (b)		Humanistic Area (c)		Medical Area (d)		Technological Area (e)	
Questionnaires		488		129		124		96		87		61	
Competences		Number of indications	%	Number of indications	%	Number of indications	%	Number of indications	%	Number of indications	%	Number of indications	%
A.1	Capacity for analysis and synthesis	246	50,4	67	51,9	75	60,5	53	55,2	23	26,4	33	54,1
A.5	Problem solving	209	42,8	70	54,3	46	37,1	18	18,8	42	48,3	37	60,7
A.4	Information management skills (ability to retrieve and analyse information from different sources)	153	31,4	41	31,8	51	41,1	33	34,4	21	24,1	8	13,1
A.16	Capacity for applying knowledge in practice	135	27,7	35	27,1	38	30,6	16	16,7	25	28,7	23	37,7
A.3	Oral and written communication in your native language	115	23,6	30	23,3	26	21,0	42	43,8	13	14,9	7	11,5
A.2	Capacity for organization and planning	106	21,7	29	22,5	27	21,8	8	8,3	26	29,9	17	27,9
A.9	Teamwork	105	21,5	28	21,7	18	14,5	21	21,9	32	36,8	8	13,1
A.11	Ability to work in an interdisciplinary team	90	18,4	30	23,3	17	13,7	13	13,5	18	20,7	15	24,6
A.17	Research skills	88	18,0	22	17,1	14	11,3	29	30,2	16	18,4	8	13,1
A.18	Capacity to learn	86	17,6	29	22,5	24	19,4	14	14,6	10	11,5	12	19,7
A.6	Decision-making	81	16,6	16	12,4	31	25,0	8	8,3	16	18,4	11	18,0
A.8	Critical and self-critical abilities	69	14,1	6	4,7	19	15,3	34	35,4	9	10,3	1	1,6
A.23	Capacity for generating and managing a project	62	12,7	13	10,1	19	15,3	8	8,3	8	9,2	17	27,9
A.10	Interpersonal skills	58	11,9	4	3,1	17	13,7	11	11,5	20	23,0	7	11,5
A.21	Understanding of cultures and customs of other countries	26	5,3	0	0,0	6	4,8	20	20,8	1	1,1	0	0,0
Number of indications for 15 competences considered		1.629		420		428		328		280		204	
Total number of indications		2.209		585		557		439		405		264	
% indications considered/total		73,7		71,8		76,8		74,7		69,1		77,3	

¹In bold the top eight competences for the Total, the top seven for the Subject areas.

Figure 2 shows graphically the eight competences mostly selected in the questionnaire. The graph shows the percentages of each competence compared to the total number of selected competences, not the percentage of questionnaires where the competence was selected. Each respondent could select up to five competences, and on average 4,53 were selected with slight differences in subject areas. This allows us to note that the eight competences most frequent overall, and the seven most frequent for a subject area, cover more than half of the total occurrences.



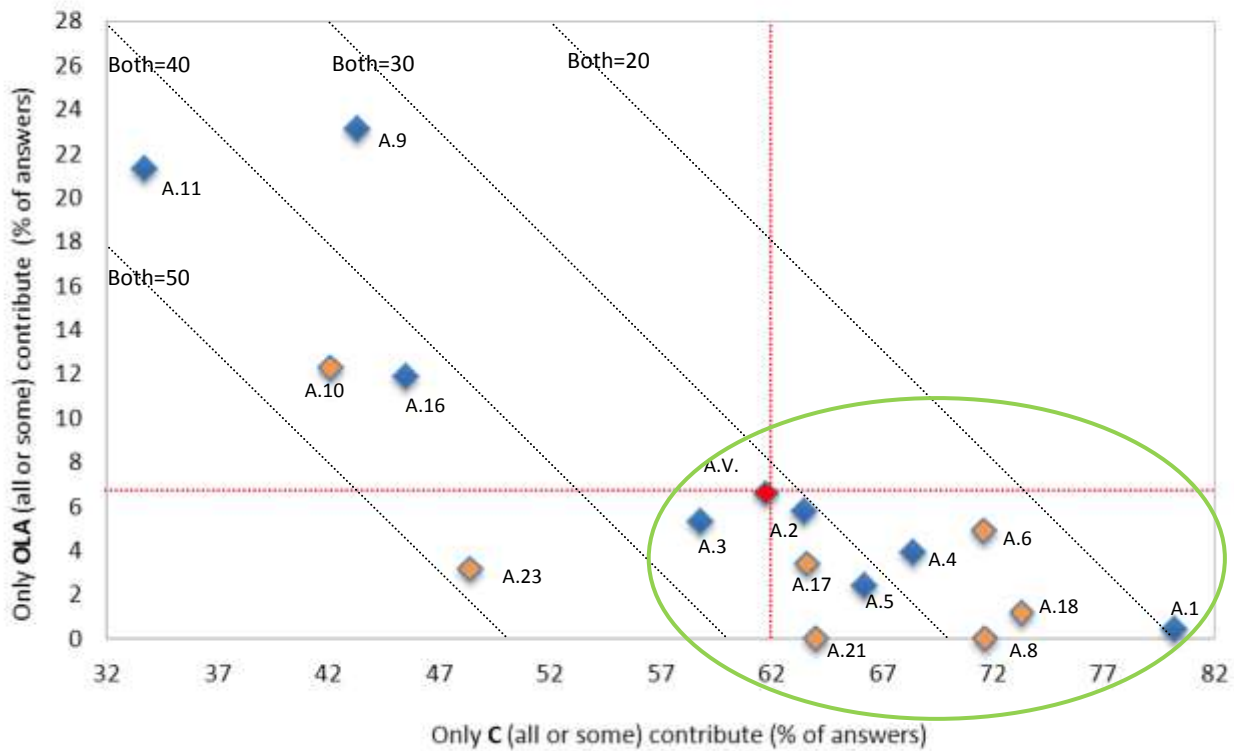
Mostly selected for the total		Further selected for some subject area	
A.1	Capacity for analysis and synthesis	A.3	Oral and written communication in your native language
A.5	Problem solving	A.2	Capacity for organization and planning
A.4	Information management skills (ability to retrieve and analyse information from different sources)	A.9	Teamwork
A.16	Capacity for applying knowledge in practice	A.11	Ability to work in an interdisciplinary team
		For a, e:	A.18 Capacity to learn
		For b:	A.6 Decision-making
		For e:	A.23 Capacity for generating and managing a project
		For c:	A.8 Critical and self-critical abilities
		For c:	A.17 Research skills
		For c:	A.21 Understanding of cultures and customs of other countries
		For d:	A.10 Interpersonal skills

Rather than giving detailed comments on the results shown in Table 6 and Figure 2 and how each competence is represented in the programmes, we will limit our discussion to a few remarks. Only “capacity for analysis and synthesis”, a rather generic competence, appears for all subject areas in the seven most commonly reported competences. In three areas “teamwork” is not in the top seven competences, and in the Political and Social Area it is missing together with “ability to work in an interdisciplinary team”: however, these are two of the most highly requested competences in the work environment. Still in the Political and Social Area the lack of attention

given to “understanding of cultures and costumes of other countries” is disturbing. The fact that “oral and written communication in your native language” is of little significance in the Health and Technological areas is also worrying since communication competences are necessary in any area. Other highly required competences appear in the top seven category only in one Subject area: “capacity for generating and managing a project” only in the Technological area and “interpersonal competences” only in the Health field.

For each of the selected competences the respondent had to specify if only academic Courses (C), or only Other Learning Activities (OLA), or both contributed to the acquisition of the competence. We show here the responses given for the 15 most frequently selected competences that were identified above. Figure 3 shows the percentage of responses in the C category (x axis) versus the percentage of responses in the OLA category (y axis). The diagonal lines represent the results where the contribution to the competence was given by both categories.

Figure 3: Contribution to competences given by Courses (C), by Other Learning Activities (OLA), or by Both



◆ Eight mostly selected for the total

◆ Other, selected for some subject area

A.V.	Average value	A.4	Information management skills (ability to retrieve and analyse information from different sources)	A.9	Teamwork	A.17	Research skills
A.1	Capacity for analysis and synthesis	A.5	Problem solving	A.10	Interpersonal skills	A.18	Capacity to learn
A.2	Capacity for organization and planning	A.6	Decision-making	A.11	Ability to work in an interdisciplinary team	A.21	Understanding of cultures and customs of other countries
A.3	Oral and written communication in your native language	A.8	Critical and self-critical abilities	A.16	Capacity for applying knowledge in practice	A.23	Capacity for generating and managing a project

Figure 3 shows that ten among the fifteen competences compose a cluster: almost no respondent believes that these competences are provided only by **OLA**, whereas between 19 and 36% of the respondents believe that the **OLA** contribute together with **C**. For the remaining five, most of the respondents declare that the **OLA** provide these competences, alone or jointly with **C**; for “teamwork” and “ability to work in an interdisciplinary team”, more than 20% of the respondents refer only to **OLA**, and for the last quoted competence less than 37% refers only to **C**.

These results show one critical and one positive aspect. It is clear that the academic tradition centered around traditional lectures is still very strong, as suggested by the low percentage of **OLA**. On the other hand, often the respondents have demonstrated that they can clearly distinguish the characteristics of the various competences by identifying the areas where they are provided.

5. Conclusions

We have shown that the employment of Bachelor graduates is not the main issue concerning the implementation of the Bologna Process in Italy. Due to the economic crisis, there are job problems for young people; however, for graduates the employment rate is higher than for others, and it does not differ much for **B** versus **M** graduates.

While part of **B** graduates entering **M** programmes are part-time students, as they are also employed, exactly two thirds of **B** graduates who are not pursuing a further degree is employed. There are regional differences, with the highest employment rates in northern Italy. Anyhow, in the South, where issues related to employment of young people are dramatic, almost 57% of all graduates are employed less than one year after graduation. Even if we only consider **B** graduates who started working after graduation, the overall employment rate is almost 57%; in the South, almost one half (48,5%) of **B** graduates find a job in less than a year, if they look for it.

Difficulties turn out to be qualitative rather than quantitative. A student-centered learning environment, which can provide both Bachelor and Master graduates with the competences necessary for their positive introduction to the labour market, is missing, or at least insufficiently developed. This statement is also supported by other studies (Fondazione Giovanni Agnelli, 2012; Unioncamere, 2011), that show several reasons why employers and working graduates are not fully satisfied. Employers remark on deficiencies in the generic competences of otherwise well prepared graduates. Employed graduates note that they are not utilized at their full potential.

The results of our survey show that the Italian academic system is still largely based on the teaching of discipline-based content, i.e. is still teacher-centered. The definition of objectives expressed using the Dublin Descriptors is present because it is required, but is mostly extraneous to the true organization of the curriculum. In fact the content of formative activities is almost never defined in base of the objectives, and the contribution that each activity gives to the achievement of these objectives is missing.

Our data show that there is awareness of the need to include generic competences to specific discipline-based learning outcomes. Even if the generic competences included in the programmes are still closely linked to the specific subject areas, at least the terminology of these competences is becoming part of the language of some curricula. Since the reform of the university system was introduced without appropriate support from the Ministry of Education, we find this result encouraging and a step in the right direction. To overcome the mismatch between the required

competences and what graduates effectively have, Italian universities must move in a much more systemic way into a student-centered approach, based on learning outcomes and competences.

Bibliography

Allen, J. and van der Velden, R. (eds.) (2011), *The Flexible Professional in the Knowledge Society. New Challenges for Higher Education*, Springer, Dordrecht.

ALMALAUREA (2009), *Condizione occupazionale dei Laureati. XI Indagine 2008*, Asterisco, Bologna.

ALMALAUREA (2010), *Condizione occupazionale dei Laureati. XII Indagine 2009*, Asterisco, Bologna.

ALMALAUREA (2011), *Condizione occupazionale dei Laureati. XIII Indagine 2010*, available at <http://www.almalaurea.it/universita/occupazione/occupazione09/volume.pdf> (accessed 19 June 2012).

ALMALAUREA (2012), *Condizione occupazionale dei Laureati. XIV Indagine 2011*, available at <http://www.almalaurea.it/universita/occupazione/occupazione10/volume.pdf> (accessed 19 June 2012).

Colombo, S. and Bellani D. (2009), "Una università classista e disattenta al mondo del lavoro?", in Regini, M. (Ed.), *Malata e denigrata. L'Università italiana a confronto con l'Europa*, Donzelli, Roma, pp. 50-65.

CARED, *Seminario sull'occupazione dei laureati (Milano 23/05/2011)*, available at <http://www.cared.unige.it/Allegato1Rapporto09062011.pdf> (accessed 19 June 2012).

CARED, *Laureati "puri" di primo livello: l'occupazione in molti casi c'è*, available at <http://www.cared.unige.it/OccupazioneLaureatidiprimolivelloanno2009.pdf> (accessed 19 June 2012).

EHEA (2012), *The European Higher Education Area in 2012: Bologna Process Implementation Report*, http://vilnius2012.bolognaexperts.net/sites/default/files/ehea_2012_bologna_implementation_report.pdf (accessed 19 June 2012).

Fondazione Giovanni Agnelli (2012), *I nuovi laureati. La riforma 3+2 alla prova del mercato*, Laterza, Roma-Bari.

Leoni, R. (2011) "Employability of graduates and development of competencies: mind the gap and mind the step! Empirical evidence for Italy", in *Dehems Conference Proceedings 22-23 September 2011*, Vienna available at http://www.dehems-project.eu/static/uploaded/files/files/contributions/Leoni_Riccardo_DEHEMS_Conference_Paper_Employability_of_graduates_and_development_of_competencies.pdf (accessed 19 June 2012).

Schomburg, H. and Teichler, U. (2006), Higher Education and Graduate Employment in Europe. Results from Graduate Surveys from Twelve Countries, Springer, Dordrecht.

Schomburg, H. and Teichler, U. (Eds.) (2011), Employability and Mobility of Bachelor Graduates in Europe. Key Results of the Bologna Process, Sense, Rotterdam.

STELLA (2009), Laureati STELLA. Indagine occupazionale post-laurea laureati anno solare 2007, Cilea, Segrate.

STELLA (2010), Laureati STELLA. Indagine occupazionale post-laurea laureati anno solare 2008, Cilea, Segrate.

STELLA (2011), Laureati STELLA. Indagine occupazionale post-laurea laureati anno solare 2009, Cilea, Segrate.

Teichler, U. (2009), Higher Education and the World of Work. Conceptual Frameworks, Comparative Perspectives, Empirical Findings, Sense, Rotterdam.

Teichler, U. (2009), Higher Education and the World of Work, Sense, Rotterdam.

Teichler, U. (Ed.) (2007), Careers of University Graduates. Views and Experiences in Comparative Perspectives, Springer, Dordrecht.

UNIONCAMERE (2011), Sistema formativo Excelsior 2011. Il monitoraggio dei fabbisogni professionali dell'industria e dei servizi per favorire l'occupabilità, Graficart, Formia.

Sitography

www.almalaurea.it

www.cared.unige.it

www.dehems-project.eu

www.excelsior.unioncamere.net/index.php

www.istat.it/

www.vulcanostella.cilea.it/