

Employability and competences of Pedagogy, Psychology, and Educational Psychology graduates: a comparative study of employers and graduates

Competencias para la empleabilidad de los titulados en Pedagogía, Psicología y Psicopedagogía: un estudio comparativo entre empleadores y titulados

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Abstract:

The labour market integration of recent graduates can be influenced by several factors, such as the economic situation of the country, the quality of their university education, and the demands of the labour market.

Although the Spanish economy has recently recovered somewhat, it still has high rates of youth unemployment, even among the best educated groups. Therefore, it is important to analyse in greater depth the transversal competences required and offered in the labour market as these can affect the integration and job satisfaction of university graduates. To analyse the differences in the view of graduates in Pedagogy, Psychology, and Educational Psychology and their employers regarding the competences needed for the labour market this article uses data from the AQU's 'Universitat i Treball a Catalunya' survey (2014a and 2014b) of graduates in

these subjects from Catalan universities and of their employers.

The results show discrepancies between employers' and graduates' views. On the one hand, graduates regard some competences as more relevant, such as decision-making, while employers give greater importance to others, such as those relating to information technology and language skills, as well as theoretical and practical training. However, both groups agree that teamwork is the most important competence for work, supporting results obtained in other studies. Furthermore, employers are more satisfied than the graduates with their level in the areas of creativity, computer science, and languages. Problem-solving, however, is an area of competence that could be enhanced in university education.

This study's contribution is to provide evidence based on the retrospective assessment

Revision accepted: 2018-02-10.

This is the English version of an article originally printed in Spanish in issue 270 of the *revista española de pedagogía*. For this reason, the abbreviation EV has been added to the page numbers. Please, cite this article as follows: Pineda-Herrero, P., Ciraso-Cali, A. y Armijos-Yambay, M. (2018). Competencias para la empleabilidad de los titulados en Pedagogía, Psicología y Psicopedagogía: un estudio comparativo entre empleadores y titulados | *Employability and competences of Pedagogy, Psychology, and Educational Psychology graduates: a comparative study of employers and graduates*. *Revista Española de Pedagogía*, 76 (270), 313-333. doi: <https://doi.org/10.22550/REP76-2-2018-06>

<https://revistadepedagogia.org/>

ISSN: 0034-9461 (Print), 2174-0909 (Online)

revista española de pedagogía
year LXXVI, n. 270, May-August 2018, 313-333



313 EV

of recent graduates that can help align university training with employers' expectations.

Keywords: higher education, competences, vocational adjustment, employers, graduates, youth employment, labour market integration.

Resumen:

La inserción laboral de los jóvenes universitarios se puede ver influenciada por varios factores, como la situación económica del país, la calidad de la formación universitaria o las exigencias del mercado laboral.

A pesar de que la economía española se ha ido recuperando, aún presenta cifras altas de desempleo juvenil, incluso entre los más formados. Por ello, es importante profundizar en el análisis de las competencias transversales que son demandadas y ofertadas en el mercado laboral, ya que de esto puede depender la inserción y satisfacción laboral de los graduados universitarios. En este artículo se analizan, a partir de los datos de la encuesta «Universitat i Treball a Catalunya» de AQU (2014a y 2014b) sobre los titulados en Pedagogía, Psicología y Psicopedagogía en las universidades catalanas y sus empleadores, las diferencias en las perspectivas de ambos

colectivos respecto a las competencias necesarias para el mercado laboral.

Los resultados muestran que la visión de empleadores y titulados presenta algunas discrepancias. Por un lado, los titulados consideran más importantes algunas competencias como la toma de decisiones. Sin embargo, los empleadores dan mayor importancia a otras, como las que se relacionan con la informática y el conocimiento de idiomas, o la formación teórica y práctica impartida en la universidad. Ambos colectivos coinciden en posicionar el trabajo en equipo como la competencia más importante para el trabajo, confirmando los resultados obtenidos en otros estudios. Por otro lado, los empleadores están más satisfechos que los propios titulados con su nivel en los dominios competenciales de creatividad, informática e idiomas. La resolución de problemas, en cambio, emerge como un ámbito competencial que se podría potenciar en la formación universitaria.

La contribución del estudio radica en aportar evidencias que puedan ayudar a alinear la formación universitaria con las expectativas de los empleadores, a la luz de la valoración retrospectiva de los recién titulados.

Descriptor: educación superior, competencias, ajuste formativo, empleadores, titulados, empleo juvenil, inserción laboral.

1. Introduction and theoretical framework

The labour market integration of young people is a matter that at present deserves to be considered at a social, political, and academic level. The economic crisis has had a legacy in Spain that especially affects the country's recent

graduates. While it is true that total unemployment has fallen since 2015, current youth unemployment figures are still alarming. In Catalonia, one of the five autonomous regions with the lowest levels of youth unemployment, the unemployment rate among young people is 30.46% (data from the INE (National

Statistics Institute), Active Population Survey, 2017).

The employment situation of young people with university qualifications is especially worrying, given their strategic role for the future of the country and the need for a return on the investment made in them, both privately and as a society. The 2014 workplace integration survey by the INE reported that the employment rate of university graduates in 2010 was 75.6% and their unemployment rate was 19.2% in 2014. By branch of knowledge and qualifications, the unemployment rate for graduates in social and legal sciences was 20.4%, higher than the rate for health sciences or architecture and engineering. Of the three qualifications considered in this study, the one with the best employment rate in 2014 was the degree in Educational Psychology (83%), followed by the degree in Pedagogy (78%) and finally Psychology (73.36%). However, it has been shown that the data on the integration of young education professionals (specifically, graduates from the degrees in Pedagogy, Educational Psychology, and Primary School Teaching) conceal problems with overqualification and precarious employment. According to Pineda-Herrero, Agud-Morell, and Ciraso-Calí (2016), in 2014 just 10.9% of graduates from 2010 had a satisfactory job where they performed duties appropriate to their level of training, with a minimum annual salary that provided them with economic independence.

The role of universities in training young people has changed in the last decade. One of the main objectives of universities at present is to promote employabil-

ity (McCowan, 2015). This role has also been encouraged by the employability policies of the European Union, policies that have led to debates about the relationship between university education and the labour market (Prokou, 2008). However, do universities really train their students so that they can then integrate appropriately into the labour market?

In general terms, employability can be understood as the set of characteristics, competences, and skills that enable somebody to find a job more easily (Álvarez & Miles, 2006). According to Fugate, Kinicki, and Ashforth (2004), employability is a construct with three dimensions: the identity of the course, personal adaptability, and social and human capital. Here we focus on the dimension of human capital. This is the process of developing knowledge, aptitudes, skills, and values that will improve job satisfaction and performance, at the same time as optimising the functioning of the company (Marimuthu, Arokiasamy, & Ismail, 2009). Accordingly, there is a need for the competences that are required and offered in the labour market to be analysed in greater depth as the integration and job satisfaction of university graduates can depend on them (García-Aracil & Van der Velden, 2008).

General or transversal competences are common to most professions. These relate to basic knowledge, the ability to analyse and synthesise, organise and plan, solve problems, take decisions, communicate orally and in writing, language skills, computer skills, handling information, critical thinking, teamwork, interpersonal skills, leadership, research

skills, autonomy, responsibility, motivation, and self-esteem (Carnevale, Gainer, and Meltzer, 1989; Hernández-March, Martín del Peso, & Leguey, 2009; Bernal, Delgado, & Donoso, 2014). Authors like Wye and Lim (2009), Coleman (2011), and Cai (2013) emphasise the importance of knowing foreign languages for good integration, while Carnevale and Smith (2013), and Stevens (2005) show that communication skills, such as oral and written communication and active listening, are very highly valued in numerous professions. García and Pérez (2008) note that to attain the level of productivity demanded by companies in this era of technology, computer and on-line skills are vital. Employers also value team work (Weller, 2007), interpersonal skills (Bridge, O'Neill, & Cromie, 2003), problem solving, and decision making (Lantarón, 2014; Stasz, 1998).

Recent literature contains studies with quantitative and qualitative focuses into young people's employability and their labour market integration. Martín-González, Ondé, & Pérez-Esparrels (2015) used an exploratory factor analysis and a logit model to examine the impact of competences on the employability of graduates from universities in Valencia; they found that a good grade and workplace and international experience during university studies favour employability. Medir and Montolio (2015) studied the factors associated with the labour market integration of graduates from public universities in Catalonia. They used linear regression models for their analysis and showed a positive impact of university training on job satisfaction. Other stud-

ies like the one by Jackling and De Lange (2009) use qualitative methods, such as interviews, to analyse the convergence or divergence between the skills acquired by accounting graduates and employers' expectations. Among the main results, they found that employers seek young people with general skills (such as team work, leadership, verbal communication, and interpersonal skills). These are skills that graduates do not feel that they were taught during their university studies. Consequently, they encountered a discrepancy. There are also mixed-methodology studies, such as the work by Wickramasinghe and Perera (2010) who used data collected from surveys to perform parametric tests to analyse the differences in the employers', university lecturers', and graduates' opinions about the skills needed and acquired for working. Their results indicate that the three groups regard problem-solving, self-confidence, and team work as the most important skills.

There are also empirical studies that analyse young people's competences and employability from the perspective of graduates (for example, García, Sotelino, & Crespo, 2014) or the perspective of employers (among others, Beaven and Wright, 2006). However, according to Freire and Teijeiro (2010), the approach that can generate the most useful results is to compare the perspectives of both groups, like the one Taylor (2005) used in her evaluation of employers' expectations and how they match the perception of young people, or Saunders and Zuzel (2015) in a study of the convergence of perspectives regarding personal

qualities, transversal skills, and specific knowledge.

This study will focus on analysing the perceptions of both agents (recent graduates in Pedagogy, Psychology, and Educational Psychology, and employers) regarding the graduates' competences, the importance of these competences in their hiring, and their satisfaction with the training they have received. Its aim is to offer proof of possible mismatches and suggest areas for improvement in university training so that new professionals in education and psychology are more skilled in the job market.

2. Method

In this study we set the following objectives:

1) To analyse the perception of graduate competences (importance for work and satisfaction with the training received) from the perspective of the graduates themselves.

2) To analyse the perception of graduate competences (importance for work and satisfaction with the training received) from the perspective of employers.

3) To determine the differences between employers and graduates in their valuation of competences (importance for work and satisfaction with the training received).

3. Sample

This study uses the database of the Agència per a la Qualitat del Sistema Universitari de Catalunya (Agency for the Quality of the University System of Catalonia - AQU) regarding the workplace integration of graduates from Catalan universities from the perspective of graduates (AQU, 2014a) and employers (AQU, 2014b).

The sample of graduates in the study includes graduates from all of the public and private universities in Catalonia who graduated in the 2009-2010 academic year. They were surveyed in 2014. It comprises 17,337 people, representing 55% of the reference population (the people who graduated from Catalan universities in 2010) and has a sampling error of 0.51%. For this article, people with degrees in Pedagogy, Psychology, and Educational Psychology who, after graduating, found a job related to their training, were taken into account. After applying these criteria, the sample comprised 328 graduates: 207 with degrees in Psychology, 75 in Pedagogy, and 46 in Educational Psychology.

In the case of employers, organisations that employ educators, psychologists, and educational psychologists were considered. The sample of employers comprises 48 cases.

Table 1 provides a summary of the characteristics of the sample.

TABLE 1. Description of graduates and employers.

		Graduates	Employers
Current employment situation	– Employed	87%	
	– Unemployed	10%	
Area of employment	– Private organisation	74%	88%
	– Public organisation	26%	12%
Main activity of the organisation	– Health and social care	44.2%	10%
	– Education, research, and cultural services	33.1%	44%
Size of the organisation	– Micro organisation (<9 workers)	30%	21%
	– Small organisation (10-50 workers)	27%	15%
	– Medium organisation (51-250 workers)	19%	46%
	– Large organisation (>250 workers)	22%	19%
Number of recently graduated employees		1,298	

Source: Own elaboration.

4. Instruments and variables

The study uses the questionnaires from the AQU graduate survey (AQU, 2014a) and AQU employer survey (AQU, 2014b). In the case of the employers, only the questionnaires for companies are used for this article (omitting the questionnaires for educational centres and health centres as the former mainly employ Teaching graduates and the latter Medicine and Nursing).

To be able to choose the data for comparison between employers and graduates regarding competences, specific questions were selected from each questionnaire. In the case of the questionnaire administered to graduates, the «valuation of training received and its appropriateness for work» was selected. In this they were asked to give a valuation ranging from 1 (very low) to 7 (very good) for 14 competences relating to the level of training received in the university and its usefulness for work.

With the employer questionnaire, the responses to Block 3 («competences») were used. These involve evaluating the importance of a list of 15 competences for professional performance and the employer's satisfaction with the recent graduates' training in these competences on a scale of 0 to 10.

The usefulness of the competences for work (evaluated in the graduate questionnaire) was compared with the level of importance for work (evaluated in the employer questionnaire). Similarly, the valuation of the level of training received (from the graduate questionnaire) was compared with the degree of satisfaction with the training of the graduates (from the employer questionnaire). The competences that were common to the various blocks and questionnaires were chosen: in other words, the ones that could be compared directly.

In the case of the graduates, a new variable was created with the mean of the competences in oral expression and written communication to create a single variable, called «communication». In the case of the employers, the «creation of new ideas and solutions» variable was treated as being equivalent to the «creativity» variable based on the definition of creativity provided by Sefertzi (2000).

Finally, two blocks of 10 items were used (importance for work and satisfaction with training), administered to graduates and employers alike. Both scales show good reliability ($\alpha=.836$ and $\alpha=.886$ in the graduate sample, $\alpha=.770$ and $\alpha=.886$ in the employer sample). The 10 items on each scale provide information about the following competences, grouped in accordance with the categorisation used by the AQU (2014):

- Theoretical-practical training: theory and practice.
- Cognitive competences: problem solving, decision making, and creativity.
- Instrumental competences: communication, IT, and language.
- Interpersonal competences: team work and leadership.

In addition, items 14 and 15 of Block 2 of the employer questionnaire («hiring processes») were analysed to consider in greater depth the factors that affect the process of hiring of recent graduates. Question 13, which is dichotomous, concerns whether there are difficulties hiring suitable people for a post; if the answer is affirmative, a list of reasons for this problem was suggested, and more than one reason could be chosen.

5. Procedure

This study uses a relational-comparative research design with a quantitative focus.

After preliminary descriptive and exploratory analyses, we analysed the valuation of the training received and the competences at an overall level and by size of company using the Mann-Whitney non-parametric U test for rank sums to respond to the first and second objectives. This test was applied due to the type of variable (ordinal) and to the non-compliance with the assumption of normality (assumption evaluated with the Kolmogorov-Smirnov test and explored using normal Q-Q plots and detrended Q-Q plots). For the third objective, we examined whether the perspectives of employers and graduates concerning the importance and satisfaction with the level of competences matched, again using the Mann-Whitney U test. In all cases where this test showed a significant difference, Rosenthal's r (1991) was calculated as a measure of the effect size. As there were no data about the effects of similar variables in previous comparable studies, the magnitude of the r was interpreted following Cohen's statements.

Given that the survey of graduates and the survey of employers use different scales to measure competences, the scales were modified so that the data could be standardised and the competences compared.

To unify data, several methods are recommended such as the linear stretch method, the reference distribution meth-

od (De Jonge, Veenhoven, & Arends, 2014), regressions to estimate the new scale (Colman, Norris, & Preston, 1997), and the formula proposed by Preston and Colman (2000), which is the one used in this study. This formula is: $(\text{score}-1) / (\text{number of answer categories}-1) * 100$. To make the results easier to interpret, the formula was used following Dawes (2008), multiplying by 10 instead of 100. This meant that only the graduate scale had to be modified, as the employer one was already from 0 to 10.

6. Results

The results obtained are presented below, arranged by the objectives of the study.

6.1. Analysis of the view of the competences from the students' perspective

To answer the first objective of the study (to analyse the perception of graduates' competences from the perspective of the graduates themselves), we performed a descriptive analysis of the general valuation of the training received and competences developed.

Table 2 shows that the graduates regard team work, problem solving, decision making, and communication competences as very important. Their valuation of these competences regarding the university training they received shows scores that are below the halfway point on the scale (from 0 to 10), although it is necessary to consider the negative asymmetry of all of the distributions, above all the valuation of team work, something that suggests the existence of negative scores that are further from the mean.

The graduates show greater satisfaction with the theory training they received at university, with the attainment of team working, communication, problem solving, and decision-making competences. However, the mean satisfaction with the training received is not high in general, with their valuations of language training standing out as especially negative. It is also apparent that the graduates in the sample do not regard language competences as especially relevant to their work. Nonetheless, the spread of the responses should be noted, with higher standard deviations standing out in the valuations of creativity, IT competences, and languages.

TABLE 2. Description of the graduates' valuation of their competences (importance for work and satisfaction with training).

		Mean	Median	Standard deviation	Symmetry	Kurtosis
Training and competences: importance for work						
Theoretical-practical training	Theory	5.737	6.670	2.461	-0.397	-0.212
	Practice	5.543	6.670	3.144	-0.277	-1.003

		Mean	Median	Standard deviation	Symmetry	Kurtosis
Training and competences: importance for work						
Cognitive competences	Problem solving	8.130	8.330	2.194	-1.447	2.029
	Decision making	7.884	8.330	2.310	-1.282	1.353
	Creativity	6.885	7.500	2.812	-0.914	0.081
Instrumental competences	Communication	7.642	8.330	2.175	-1.092	0.816
	It	6.392	6.670	2.904	-0.614	-0.462
	Language	4.969	5.000	3.500	-0.069	-1.298
Interpersonal competences	Team work	8.226	8.330	2.064	-1.189	0.979
	Leadership	6.570	6.670	2.557	-0.639	-0.192
Training and competences: satisfaction with training received						
Theoretical-practical training	Theory	6.591	6.670	2.061	-0.519	0.173
	Practice	5.081	5.000	2.848	-0.069	-0.811
Cognitive competences	Problem solving	5.843	6.670	2.503	-0.459	-0.450
	Decision making	5.571	5.000	2.632	-0.220	-0.771
	Creativity	4.700	5.000	2.888	-0.008	-0.978
Instrumental competences	Communication	5.889	5.835	2.425	-0.343	-0.488
	It	4.518	5.000	2.858	0.069	-0.950
	Language	2.434	1.670	2.684	0.866	-0.248
Interpersonal competences	Team work	7.276	8.330	2.309	-0.698	-0.067
	Leadership	4.640	5.000	2.671	-0.020	-0.786

Source: Own elaboration.

To examine these results in depth, the graduates' valuations were analysed to look for possible differences depending on the size of the organisations where they work.

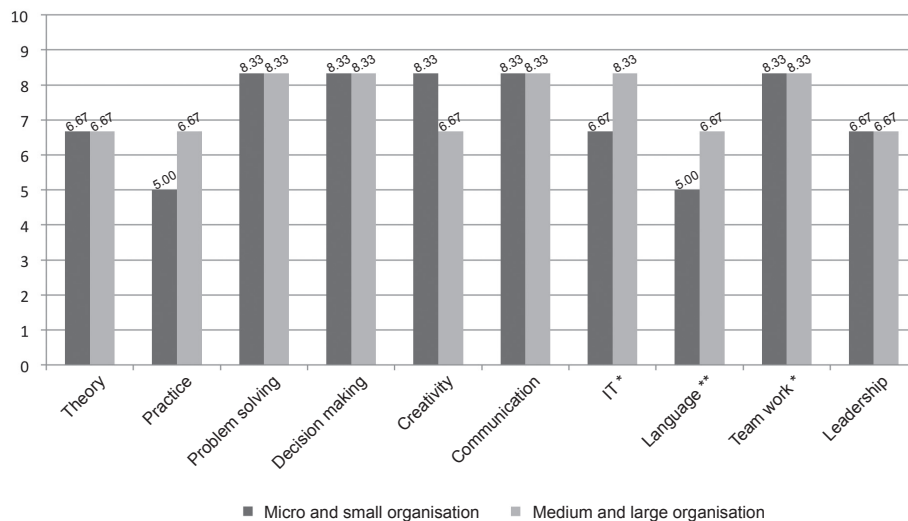
Graph 1 shows the comparison of the graduates' valuation of the usefulness of the training they received, according to the size of the organisations where

they work (micro and small organisations; medium and large organisations). The Mann-Whitney U test indicates that computer, language, and team work competences are regarded as most important by recent graduates who work in medium and large organisations (with mean ranks of 176.47, 180.32, and 171.88 respectively), compared with those who work in micro and small organisations

(mean ranks of 148.22, 145.47, and 151.51 respectively), $U=10,178.5, 9,667, 10,789.5$ with a significance level of $p<.05$. The effect size, in the three com-

petences, can be regarded as small according to Rosenthal (1991) and Cohen (1988), with r values of .15, .19, and .12 respectively).

GRAPH 1. Valuation of the usefulness of the training received and of the competences for work (median), according to the graduates. Differences by size of organisation where they work.



Source: Own elaboration.

* Statistically significant difference at a .05 significance level

** Significance level of .01.

In the block for the level of satisfaction with the training received, the U test indicates that the graduates who work in medium and large organisations score their satisfaction with training in creativity more highly (with a mean rank of 172.62) than those who work in micro and small organisations (mean rank of 150.97, $U=10.690, p=.036$). The effect size is small ($r=.12$). The other competences do not present appreciable differences by size at a significance level of .05.

6.2. Analysis of competences from the employers' perspective

Moving on to the second objective of the study (to analyse the perception of the graduates' competences from the employers' perspective), Table 3 shows the descriptive analysis of the general valuation by employers in the sample of the training received by the hired graduates.

It can be seen that employers regard team work, problem solving, communication, and creativity skills as important, these skills being the most highly valued

ones on average in relation to the competence level attained by the hired graduates. The competence with which the employers are least satisfied is leadership

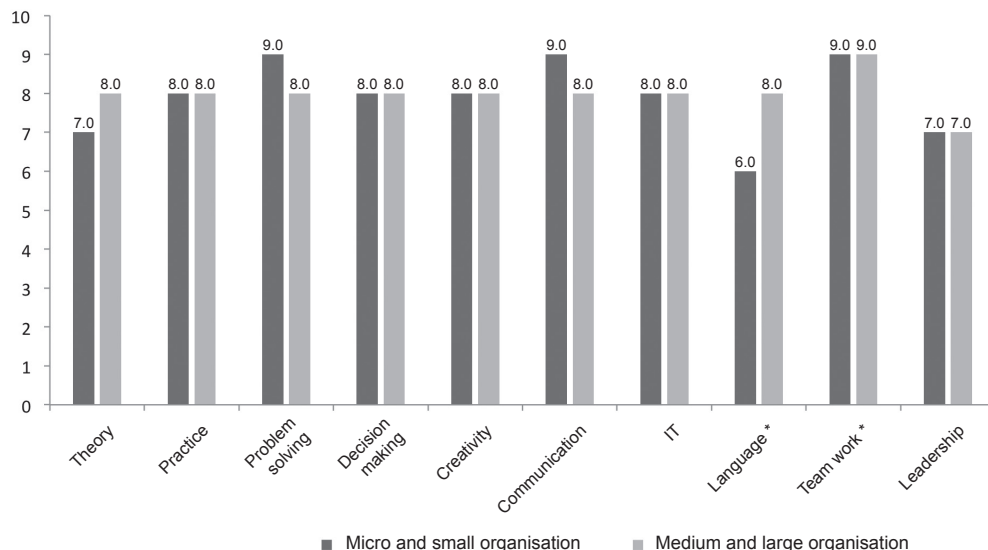
(which is also the competence they regard as least important for work); however, it is again necessary to note the high level of variance in the responses.

TABLE 3. Description of the valuation of the competences (importance for work and satisfaction with training) by employers.

		Mean	Median	Standard deviation	Symmetry	Kurtosis
Training and competences: importance for work						
Theoretical -practical training	Theory	7.375	8.000	1.817	-1.432	4.586
	Practice	7.750	8.000	2.119	-1.253	2.448
Cognitive competences	Problem solving	8.128	8.000	1.752	-0.912	0.385
	Decision making	7.667	8.000	1.629	-0.450	-0.351
	Creativity	8.043	8.000	1.517	-0.465	-0.417
Instrumental competences	Communication	8.354	8.500	1.537	-1.071	1.762
	It	8.021	8.000	1.657	-0.738	0.026
	Language	7.125	8.000	2.455	-0.817	0.186
Interpersonal competences	Team work	8.521	9.000	1.598	-1.019	1.251
	Leadership	6.674	7.000	2.066	-0.520	0.546
Training and competences: level/satisfaction						
Theoretical -practical training	Theory	7.244	8.000	1.861	-1.438	3.986
	Practice	5.511	6.000	2.212	-0.319	-0.012
Cognitive competences	Problem solving	6.273	6.000	1.744	0.221	0.317
	Decision making	5.978	6.000	1.832	0.192	0.414
	Creativity	6.444	7.000	1.791	-0.265	0.915
Instrumental competences	Communication	6.622	6.000	2.037	-0.455	1.346
	It	7.044	7.000	2.163	-0.765	0.521
	Language	6.068	6.500	2.204	-0.241	-0.413
Interpersonal competences	Team work	7.000	7.000	1.638	-0.227	0.471
	Leadership	5.273	6.000	2.316	-0.042	0.087

Source: Own elaboration.

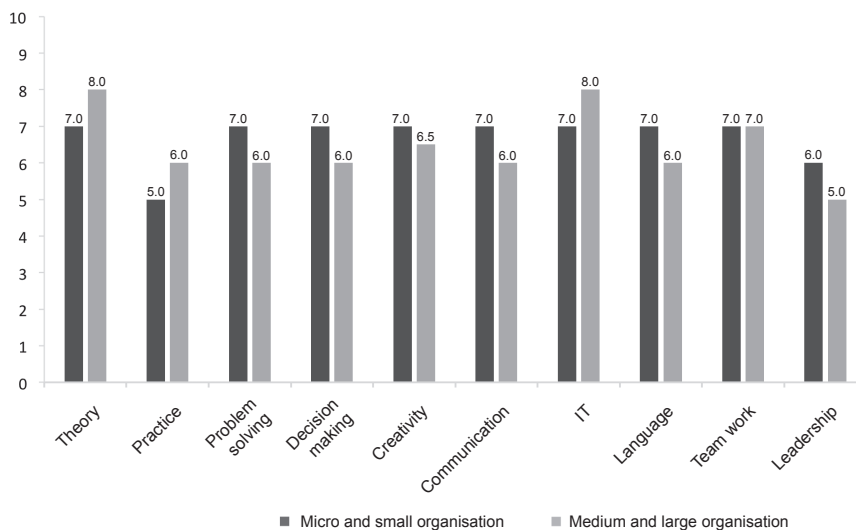
GRAPH 2. Valuation of the importance of training received and of the competences for work (median) according to employers. Differences by size of company.



Source: Own elaboration.

* Statistically significant difference at a .05 significance level.

GRAPH 3. Satisfaction with the importance of the training received and the competences developed by the graduates (median), according to employers. Differences by size of company.



Source: Own elaboration.

* Statistically significant difference at a .05 significance level.

As in the previous section, these results have been analysed to seek possible differences between the valuation of competences by size of organisation (micro and small organisations; medium and large organisations) using the Mann-Whitney U test. As shown in Graphs 2 and 3, the only difference with statistical significance at $p < .05$ is in the valuation of language competences: employers from medium and large companies regard them as more important (mean rank of 27.89) than employers from micro and small companies (mean rank of 18.32, $U=158.5$, $p=.021$). The magnitude of this difference is moderate ($r=.33$).

The survey also asked employers about difficulties in hiring pedagogy and psychology professionals who meet their needs. The results show that 65% of the employers surveyed have had problems hiring for certain posts; the reasons for these problems are, for 33% of employers, that graduates do not have the necessary competences and, for 23%, that there is a lack graduates in specific areas. Other reasons were given by 23% of the employers who answered this question for the difficulty of covering certain posts, such as lack of personal maturity and motivation, and lack of knowledge about the functions of the specific role (for example, they mention the case of psychologists and educational psychologists who do not have competences relat-

ing to the company's training and human resources).

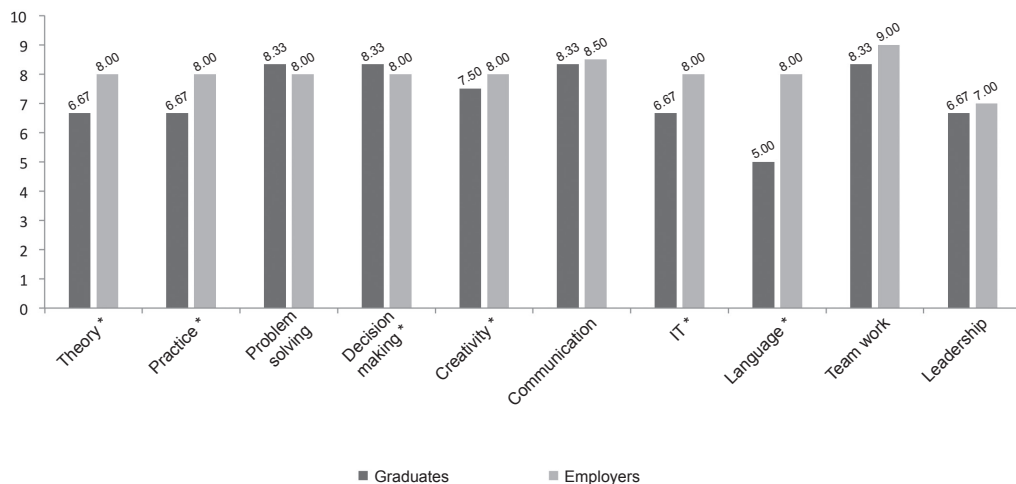
6.3. Differences in perception of the competences of the graduates, according to employers and graduates

To answer the last objective (to establish the differences, between employers and graduates in their valuation of competences), the perceptions of graduates and employers were compared using the Mann-Whitney non-parametric test. The results shown in Graph 4 indicate that there are statistically significant differences in the level of importance given to theory and practical training, creativity, IT, and languages. The employers value more highly the competences mentioned above (mean ranks of 259.56, 254.09, 219.93, 238.48, 245.01) in comparison with the graduates (mean ranks of 178.1, 178.9, 182.25, 181.19, 180.23; $U=4,461$, 4,723.5, 6,113.5, 5,473, 5,159.5, 7,648; $p < .05$).

In contrast, the decision-making competence is regarded as more important by graduates (average range of 192.31) than employers (mean rank of 158.66; $U=6,439.5$; $p=.038$).

Rosenthal's r (1991) was calculated for all of the significant differences that emerged. The effect size was small for all of the competences (r values of .25, .23, .11, .12, .17, .20).

GRAPH 4. Differences in the importance of the competences between employers and graduates (median).



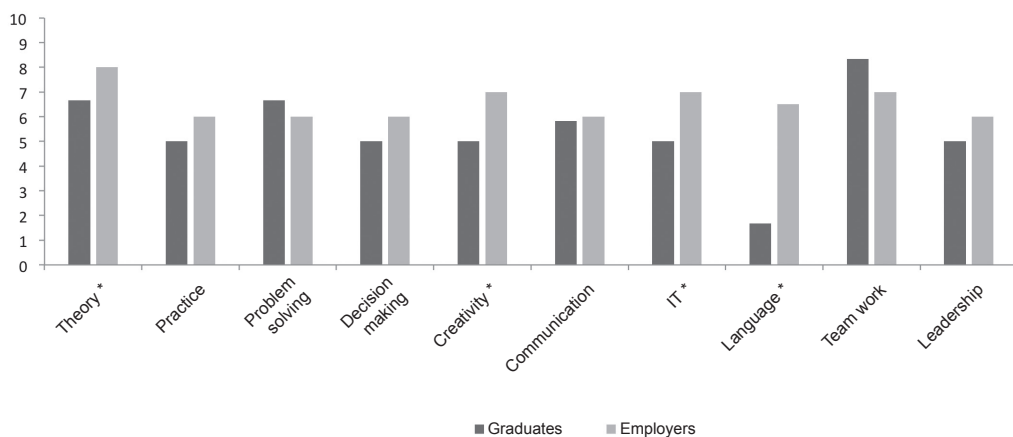
Source: Own elaboration.

* Statistically significant difference at a .05 significance level.

The only group of competences that do not display significant differences at a .05 significance level are interpersonal com-

petences. In other words, graduates and employees have a similar valuation of the importance of these competences.

GRAPH 5. Differences between employers and graduates in satisfaction with the level of the competences (median).



Source: Own elaboration.

* Statistically significant difference at a .05 significance level.

Graph 5 shows the median values for the scores for the level of satisfaction with the level of competences, with the valuations of the graduates and employers.

Again, the interpersonal competences group does not display significant differences at a significance level of .05. There are only significant differences in the level of satisfaction with training in theory and in the creativity, IT, and language competences. In all cases, the employers have a higher mean level of satisfaction (mean ranks of 217.77, 247.21, 269.67, and 298.24 respectively) than the graduates (mean ranks of 182.78, 178.74, 175.66, 170.28; $U=5,995.5, 4,670.5, 3,660, 2,211.5$; $p<.05$). The magnitudes of the differences observed in the satisfaction with theory training, creativity, and IT competences can be regarded as small (r values of .11, .21, and .29 respectively). In contrast, the difference in the level of satisfaction with language competences displays a moderate effect size ($r=.40$).

7. Conclusions and discussion

The economic crisis has led to a worsening of the situation of recent graduates in the labour market and an increase in their unemployment rate (MECD, 2013), exacerbating the imbalance between supply and demand (Xiaohao and Changjun, 2013) and worsening the conditions of their labour market integration concerning educational alignment, contractual stability, and the possibility of obtaining a large enough salary to be able to be independent (Pineda-Herrero, Agud-Morell, and Ciraso, 2016).

One way to analyse this problem is to study the employability of recent graduates. We agree with Suárez (2016) that the concept of employability has a dimension that is extrinsic to the individual and relates to macroeconomic factors, employment policies, labour supply conditions, selection processes, the range of training available, and support services. Nonetheless, in this article we have attempted to examine in depth the facet of employability that relates to the individual dimension, with the competences of graduates, specifically the transversal competences that have been described in the literature as being most important for good workplace integration (among others: Carnevale, Gainer, & Meltzer, 1989; Stasz, 1998; Bridge, O'Neill, & Cromie, 2003; Stevens, 2005; Weller, 2007; García & Pérez, 2008; Wye & Lim, 2009; Hernández-March, Martín del Peso, & Leguey, 2009; Coleman, 2011; Cai, 2013; Bernal, Delgado, and Donoso, 2014; Lantarón, 2014).

This article focuses on Pedagogy, Psychology, and Educational Psychology graduates, comparing the perspectives of graduates themselves and of the business who have recently hired graduates in these subjects regarding their satisfaction with transversal competences and their relevance to work.

The results of the study show that the graduates regard team work, problem solving, decision making, and communication competences as very important. They are also on average satisfied with what they were able to learn in these competences during their degree. They are less satisfied with the training they received

in languages, although the graduates in the sample do not generally regard this as a particularly relevant competence for employment.

For its part, the analysis of employers' responses shows that they regard team work, problem solving, communication, and creativity competences as very important, and that they are generally satisfied with the hired graduates' level in these competences.

Analysis of the compared perspectives of graduates and employers shows that both groups value team work as one of the most important competences for working in the psycho-educational sector, confirming the results obtained in other studies at the international level (Andrews and Higson, 2010; MetLife, 2011). As for other competences, the valuations by graduates and employers differ significantly. In particular, discrepancies are apparent regarding the importance attributed to, creativity, IT, languages, theoretical and practical training: employers regard these areas as more important for work, and so as having greater weight in the selection process (agreeing with García and Pérez, 2008, Cai, 2013, and others). In contrast, decision making is a competence that graduates overvalue in comparison with the views of the employers, something that contrasts with other research into what training is desirable for graduates in Psychology and Pedagogy (Valeeva & Karimova, 2013). These results suggest that the employers' expectations about the training of the recent graduates do not always coincide with the priorities that the graduates themselves give to certain areas of competence, some-

thing that could create an imbalance in training.

As for the satisfaction of the two groups with university training in transversal competences, some interesting discrepancies were also detected. Specifically, employers report greater satisfaction than graduates with the competence areas of creativity, IT, and languages, as well as with the level of theoretical training of the university graduates. Both groups are very satisfied with the teamwork competences of the recent graduates, a factor that corroborates the results of the AQU's qualitative study (2017) which identifies this competence as one of the strong points in the training of the graduates according to businesses in the educational and social service sectors.

According to the overall results of the survey (AQU, 2014a), university graduates believe that the most important training deficits are in the competences that are most wanted in work: languages, decision making, IT, leadership, and problem solving. However, the results show that employers are more satisfied with the competence level of Pedagogy, Psychology, and Educational Psychology graduates in IT and languages than the graduates themselves are (in particular, language competences stand out, where a moderate effect size was found), while employers regard the ability to make decisions as less important than graduates do. Regarding leadership, neither employers nor graduates regard this competence as particularly important (among those covered by the questionnaire). Despite the methodological limitations of

the study (specifically, the characteristics of the sample of organisations), these results could suggest that the employers have a more optimistic view of the competences of young educators, psychologists, and educational psychologists compared with other graduates in the general study sample.

From the results presented in this study, problem solving emerges as an area of competence that could be strengthened in university training to better meet future employers' expectations of educators, psychologists, and educational psychologists; this competence is regarded as very important by both employers and graduates, but the employers are not very satisfied with the graduates' level of command of it. Solving complex problems is a competence that is increasingly regarded as important in the selection of candidates by businesses (NACE, 2016) and so it should be emphasised in the curriculums of these qualifications.

Regarding the possible differences in the valuation of the competences according to the size of the organisations that where the recent graduates work, some significant differences were observed, but these do not match the valuations by employers and graduates, and they do not seem to be conclusive (in line with contributions by Husain, Mokhtar, Ahmad, and Mustapha, 2010). The only competence that employers and graduates both regard as more important in medium and large businesses is languages, something that could relate to a higher level of internationalisation in these organisations.

One of this study's main contributions is that it shows which competences should be regarded as more important by graduates and universities to meet the expectations of employers in the psycho-educational sector. This study has permitted us to present the characteristics and differences of views of employers and graduates in the psycho-educational sector, a topic on which there are few studies.

It has shown that, although there are discrepancies between the views of graduates and employers, the psychologists, educators, and educational psychologists of Catalonia have a good part of the transversal competences required by companies. Nonetheless, almost a third of companies have difficulties finding appropriate graduates for the posts they offer. As Singh, Thambusamy, and Ramly indicate (2014), companies today require professionals with a broad selection of competences, giving them the flexibility to perform different functions. In light of these results, it would be helpful to check whether the latest reform to syllabuses better meets the needs of the companies, and whether it facilitates the workplace integration of the pedagogy and psychology professionals in the fields that pertain to them.

It might be concluded that graduate unemployment levels could fundamentally be attributed to factors from the macroeconomic climate of the country (Weller, 2007), but, according to employers' responses concerning the difficulties they have encountered in hiring, these unemployment levels could also be the result of particular shortcomings in the spe-

cific training of these young people. More exhaustive research along these lines will be needed to explore these results in greater depth.

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