

## Article

# Skill Profiles for Employability: (Mis)Understandings between Higher Education Institutions and Employers

Luís Sebastião <sup>1,\*</sup>, Filipa Tirapicos <sup>1</sup>, Rita Payan-Carreira <sup>2</sup>  and Hugo Rebelo <sup>1</sup> 

<sup>1</sup> CIEP-UE—Research Centre in Education and Psychology, University of Évora, 7005-345 Évora, Portugal; filipa.tirapicos@uevora.pt (F.T.); hrfr@uevora.pt (H.R.)

<sup>2</sup> CHRC—Comprehensive Health Research Centre, Department of Veterinary Medicine, Universidade de Évora, Pole at Mitra, 7002-774 Évora, Portugal; rtpayan@uevora.pt

\* Correspondence: lmss@uevora.pt

**Abstract:** There is a consensus that employers, when recruiting, look for future employees to have a certain required profile. This profile consists of a set of skills that are considered crucial for the correct performance of the tasks that the employees will be performing. It is usually easy to identify which hard skills employers require, but it is not so easy to find out which soft skills employees should have. In addition to this difficulty, there is the possibility that higher education institutions may not be preparing students to align with employers' envisioned skill sets. As part of the European Project "Think4Jobs" (2020-1-EL01-KA203-078797), an exploratory study was conducted to understand whether higher education institutions develop, and employers demand, individuals with the same profiles and to characterise these profiles. For this purpose, eight directors of different higher education programmes and six employers were interviewed. The information from the interviews was processed using the content analysis technique with the support of the NVivo data analysis software. The findings indicate that both educators and employers acknowledge the significance of soft skills, assigning them higher importance than hard skills, and the necessity of coordination between the two skill sets. Respondents also emphasised the importance of training, with course directors focusing more on initial training, while employers highlighted in-job training. Motivation, creativity, interpersonal relationships, communication, initiative and critical thinking were the skills identified by both groups as essential to an employee's profile.

**Keywords:** soft skills; hard skills; labour market; university-business collaboration; employability



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## 1. Introduction

### 1.1. Labour Market Dynamics Are Changing

There is a widespread perception that the continuous acceleration of technological progress puts pressure on companies to seek an increasingly skilled workforce so that general and transferable skills and competencies can be found at all levels of an organisation. This progress is related not only to automation capabilities but also, above all, to the emergence of artificial intelligence and the complexity of organisational structures. But while there is consensus on the need to develop transferable and dynamic skills and competencies, there is no such consensus when it comes to establishing the substantive list of what those skills should be [1] and which organisations are responsible for that capacity-building. And yet, in the face of the outbreak of the so-called Fourth Industrial Revolution (4IR) [2], for companies to be able to prepare to adapt and resist, such a definition assumes enormous relevance. It should be realised, however, that many organisations are still in the transition between the Third Industrial Revolution (3IR) and the 4IR, and although some authors [1] claim that "the skills necessary for the 3IR (or the Digital Revolution) differ significantly from the skills necessary for the 4IR" (p. 2), the changes brought via the 4IR are unpredictable, and they accompany the emergence of new occupations and a growing need for workers to develop company-specific skills.

### 1.2. *Soft Skills and Hard Skills for Employability*

The use of words like “skills” (social, emotional, cognitive, etc.), “abilities” and “competencies” is done in very different ways, depending on the context, culture and professional or academic area, and it is not standardised. Trying to understand whether these words are different words for the same thing or different aspects that are somehow interconnected is a very complex challenge. Anyway, different authors seem to agree on one thing: in the labour market, all these terms are related to performance. Workers will need a set of personal attributes that prepare them for both employment and continuous learning due to the permanent acceleration that makes their jobs’ continuity dependent on the possession of both a set of relevant skills [3] and the ability to learn new things. The sustainability and performance of companies depend on a workforce that is well trained [4–6]. The instrumental importance of this issue emerges in the number of studies that, over the last thirty years, international organisations, business associations and their stakeholders have been conducting, asking trainers and, above all, employers about the attitudes, abilities, skills and competencies considered essential for the labour market [7–11].

Based on the difficulty of defining terms but needing to create unambiguous categories with terms that can be operationalised, we decided to adopt the perspective that “skills can generally be divided into two main categories—hard skills and soft skills” [12] (p. 1). In this categorisation, hard skills correspond to technical skills that can be acquired through training (specific learned activities) and are essential to performing tasks [13], and soft skills refer to personal, interpersonal and intrapersonal abilities that are essential in the workplace, such as teamwork, communication and critical thinking [14,15], which are very related to personal qualities. When we analysed the answers of our interviewees, the need arose to divide this category into two subcategories that seemed to group aspects that seemed distinct to us: attributes, regarding psychological and character traits, and competencies, “understood as the ability to deal with complex work situations, drawing on multiple resources that the employee brings to the workplace. Thus, competence is a holistic notion, relating to the whole person and including different dimensions (for instance, occupational, personal, and inter-personal)” [16] (p. 552).

### 1.3. *From Higher Education to the Labour Market*

According to Franco-Ángel, Carabali and Velasco [17], “higher education should provide students with the skills necessary to successfully face their professional career challenges. Industry demands professionals who are adequately prepared for work, equipped with the knowledge and technical skills and the personal and social skills that enable organisations to generate value” (p. 384). With the labour market in constant reconfiguration, trying to align learning goals with the needs of the labour market is a difficult task for universities [18]. The employability of its graduates has become more and more central to HEI concerns since it has become one of the main indicators of an institution’s assessment, as pointed out by different researchers [19,20]. That is why, over the last few years, studies have been conducted to establish which skills are relevant for employability purposes. Bholá and Dhanawade [21] published a review paper in which they tried to contrast the perspectives of researchers and employers on the skills and competencies needed for employability, what they call the skills gap, and the ways to bridge that gap. And they concluded that the gap is more important for the so-called transversal competencies or soft skills than for the technical or hard skills. This is consistent with the thoughts of García-Álvarez et al. [22], who stated that “empirical evidence indicates that soft skills—or ‘transversal competencies’—are the most widely demanded by employers because they allow people to improve their individual performances in various tasks while, at the same time, promoting personal development and interaction with others” (p. 4).

### 1.4. *The Aim of This Study*

In this article, our starting point, however, was not specifically based on the new challenges that the 4IR raises in terms of which transferable skills and technological knowledge

will be needed and how to bridge the skill gap [23,24]. Of course, we must pay attention to these aspects in speech, but our main objective was to try to establish whether employers and HEIs agree about which kinds of skills are needed for employability.

In fact, a particularly significant drive for this work was the understanding, apparently accepted without contradiction, that corporations in Portugal have difficulty recruiting a capable workforce because training institutions, in particular universities, hover in an environment dissociated from reality and far removed from the business world. It is critical to clarify this issue because only with a clear vision of the competence profiles employers seek [25] can training models be designed and implemented in line with this demand. So, we listened to both teachers and employers and then compared both parties' speech to conclude that, in fact, there is a wide consensus about what is necessary. Therefore, we asked a group of Portuguese university teachers and entrepreneurs/employers from different but related areas of training and work what competencies they believed are necessary for the employability of job applicants, as well as who should be responsible for promoting them and possibly how.

This is an exploratory study, and its real aim was to capture the different discourses of the two groups of participants to find overlaps and contrasts. Above all, the identification of contrasts will allow for the elaboration of recommendations that will make it possible to bridge the gap between the competencies that graduates leave universities with and those required to enter the labour market. To this end, interview scripts were developed to collect information on the categorial framework determined according to the problems addressed in the study. The comprehensive concepts involved were those of hard skills [26], soft skills, attitudes, initial training, in-job training and university–business relations. The methodologically unorthodox nature of this approach was assumed. Still, since the real object of the study was the discourse about which competencies university students leave training with and which they should leave with, we aimed to condition the participants' statements as little as possible. Content analysis of these interviews led to a list of skills and attitudes that are broadly comparable to those resulting from the various surveys carried out in different geographies and different areas of activity [13], which indicates that broad consensus has been established on which skills and competencies are gaining relevance in the present economic and liberal context.

## 2. Methodology

In this article, a qualitative methodology was applied using semi-structured interviews [27,28] that were conducted individually with the group of employers and university teachers who participated in the study. We opted for interviews because this instrument is widely used to collect data and “enable participants—be they interviewers or interviewees—to discuss their interpretations of the world in which they live, and to express how they regard situations from their point of view” [29]. The less structured interview approach was chosen for its potential to achieve the study's exploratory objectives, using a set of aspects and questions that were previously listed, considering the objectives set, but that, due to their more fluid and flexible nature, allowed us to address previously unforeseen aspects that arose in the discourse with some improvisation. Eight Portuguese university teachers from the fields of psychology, education sciences, veterinary medicine, tourism, management and mechatronic engineering and six employers from the areas of tourism, education, hospitality, consultancy and livestock were interviewed. To ensure that the participants' backgrounds were relevant to the study, we drew up a list of university professors from our academy who were both members of the course committee and that was linked to the academic internship component. Our initial aim was to interview 8 university lecturers and 8 employers. So, after the invitations had been sent out, we selected the 8 teachers with the desired profiles and then invited employers in similar areas to those of the university teachers. Unfortunately, despite our best efforts, we were only able to interview 6 employers in the time we had to collect data, as other professionals we contacted were

unable to reconcile their schedules. All the employers interviewed fulfilled the requirement to be responsible for recruiting new employees.

Interview scripts were conducted for each data collection sector [28] with the main objective of understanding how higher education is training students in hard skills and soft skills and whether these institutions are training students according to the needs of the labour market as perceived by entrepreneurs and employers. All stakeholders were contacted via email and informed about the purpose of the research, as well as the whole process of data analysis. In compliance with the Portuguese General Data Protection Regulation, they were assured that all the information provided would be anonymised, that participation was strictly voluntary and that they could withdraw from the research at any time if they so wished.

The preliminary interview script was submitted to a panel of experts, and upon receiving their suggestions, some changes were made to make the formulation of the questions clearer. The interviews were scheduled and took place via Zoom or face-to-face, depending on the interviewee's availability. The interviews lasted an average of 40 min. To guarantee the standardisation of the information collected, the transcription process (the audio files were converted to text) was carried out by two professionals with experience in transcribing interviews, in accordance with the conventions for transcription found in [30]. The content was analysed using the NVivo qualitative data analysis software. Content analysis is defined by [31] as "*a set of techniques for analysing communications in order to obtain, by systematic and objective procedures for describing the content of messages, indicators (quantitative or not) that allow the inference of knowledge regarding the conditions of production/reception (inferred variables) of these messages*" (p. 44). The NVivo software has a wide range of resources available, and its layout is very accessible and very similar to the operating systems integrated in computers used daily [32]. After the initial organisation of the data, we proceeded to categorise and code the text segments (for a total of 107 registration units) and then requested NVivo analytical matrices. For the final presentation of the data, the matrices were converted into more simplified tables to make the data easier to read.

The interview script conducted with university teachers was divided into four parts, and its objectives were to collect personal and professional data, to identify the competencies targeted in higher education and to describe what are, from trainers' point of view, the competencies needed to enter the labour market. The interview script applied to employers had as objectives, in addition to the previously mentioned ones, to understand whether, in the employers' view, the university should be the only institution responsible for training students or whether it is vital to involve employers in this training.

Notwithstanding this difference noted in the interview scripts, the categorical frameworks used for the content analysis of both sets were identical. Naturally, a wealth of information was lost, but the comparability of the analyses was gained. We, therefore, defined a preliminary set of categories and subcategories that corresponded strictly to our research interests. The categories established a priori were hard skills, soft skills and training. The soft skills category included two subcategories: attributes and competencies. The problematic nature of this classification is recognised. It was intended to distinguish two essential components of what in the literature are called soft skills, [33,34] which are, on the one hand, a set of psychological and characterological attributes, which we included in the designation of attributes and, on the other hand, a series of competencies, understood as a set of behaviours, which are of a multifactorial origin but are observable and measurable for performance evaluation. The training category, in turn, was divided into two subcategories: initial training and in-job training.

Subsequently, during the data analysis, a fourth category emerged, which we called "Skills articulation" because many units of meaning opposed the dichotomous character of hard skills versus soft skills.

### 3. Results and Discussion

Interviews play a central role in a diversity of research designs [28]. The corpus of documents that were content-analysed consisted of fourteen transcripts of the interviews conducted with six employers in the business areas of tourism, education, hospitality, consultancy and livestock and eight university teachers in psychology, education sciences, veterinary medicine, tourism, management and mechatronic engineering, as already mentioned.

#### 3.1. University Teachers

From the analysis of the teachers' interviews, we isolated 62 registration units, distributed according to Table 1.

**Table 1.** Registration Units (N = 62) by category and subcategory for university teachers (UT).

Category	Subcategory	UT1	UT2	UT3	UT4	UT5	UT6	UT7	UT8	Total by Category	%
Hard skills		2	1	2	1	5	2	0	1	14	23%
Soft skills	Attributes	1	1	1	0	0	3	4	3	13	21%
	Competencies	3	4	5	1	2	2	1	2	20	32%
Skill articulation		1	0	1	1	0	1	0	1	5	8%
Training	Initial training	0	1	2	0	1	1	1	1	7	11%
	In-job training	1	0	1	0	1	0	0	0	3	5%
Total registration units		8	7	12	3	9	9	6	8	62	100%

As can be seen from Table 1, when we sought to clarify which competencies teachers most value in training, regarding employability, 53% of references were made to “soft skills” and 23% to “hard skills”, whereas 8% of references emphasised the importance of the articulation between the two categories.

Regarding the attribution of responsibility for developing the competencies targeted, more references were registered in the “initial training” subcategory, at 11% of the total isolated units, than in the “in-job training” subcategory, corresponding to 5% of the total references.

##### 3.1.1. Hard Skills

Despite the diversity of the training fields covered in the study—psychology, education sciences, veterinary medicine, tourism, management and mechatronic engineering—hard skills and their centrality in the work developed at HEIs are generally recognised. One of the respondents said unequivocally, “*more and more hard skills are (...) fundamental, (...) but currently the study programmes that exist are essentially geared towards hard skills*” (UT5). Precisely because of the diversity of these training areas, but also because the hard skills required are very context-dependent, changing at great speed with technological developments, concerning the specifications of tasks and equipment, references are made to their importance but not to their substance. It was stated that “*a very solid scientific and technical knowledge is required*” (UT3) and that these skills “*are very important, both those of broadband, which students sometimes have some difficulty in understanding their usefulness, but then (...) when they reach the labour market (...) they begin to realise that it serves something*” (UT2).

Interesting is the perception that there was an understanding associated with the state-of-the-art of the different scientific areas, that the institutions provided competent training in terms of hard skills and that these are transversal, for each training area, to the institutions as a whole: “*hard skills are very equivalent from university to university, there is no variability within this area of management (...) the vast majority of universities adequately provide hard skills and technical and scientific competencies, in the area of management, to students*” (UT6).

### 3.1.2. Soft Skills

#### Attributes

Concerning “attributes”, we considered the individuals’ psychological and characterological traits that predisposed them to act consistently in particular ways. As already pointed out, 23% of the established registration units referred to this type of capacity. Thus, teachers considered as determinants for employability that subjects were creative (UT3), responsible, compliant and mature, (UT6) motivated (UT7), respectful of others (UT2) and empathetic and able to relate (UT8).

#### Competencies

Soft skills themselves were grouped around four fundamental nuclei: communication, teamwork, innovation and, above all, critical thinking. In fact, all the participants’ speech referred to the whole of this set. Thus, UT3 said that it was necessary to develop “*skills in the area of technical-scientific communication*” even if this communication was not exclusively instrumental since it was necessary “*not only to pass on this information but also to sensitise the listener (. . .) and create empathy with the people with whom you communicate and establish an emotional bond*”. UT3 also said that the “*ability to build innovative solutions*” was important “*to work in an articulated way in a team*”. In the same sense, UT5 stated that “*just because someone has greater ease in communicating, having that know-how, those more developed skills (. . .) helps in terms of employability*”.

According to UT4, jobseekers “*can know a lot of things about machines and programme a lot, if you don’t know how to integrate (. . .) and work in a team, you can’t do anything*”. The other respondents were similarly favourable. Other aspects that were mentioned, albeit with less emphasis, were “*being able to write and summarise*” (UT8) and the ability to manage time (UT2).

But the interviewees were most eloquent about the idea of critical thinking and its importance. Educator UT6 described this skill as “*reflective thinking, critical analysis and adding value*”, as did employer EE1, who defined it as “*being able to assess reality, to think about it in a joint and critical way*”. Critical thinking was also understood as “*the ability to disrupt, to think outside the box, to create solutions that are often unique*” (UT3). This same interviewee stated, “*in interviews for job selection, in the tests that are done, etc., it is exactly these characteristics that are sought*”. UT5 understood that “*people have very easy access to global information, almost everything is just a click away*”, which makes critical competencies essential. UT6 considered critical thinking to be extremely important and regretted that the subject of critical thinking included in the study plan of the graduates she taught was optional. From her point of view, she considered “*that it is a weak point in most students (. . .) while (. . .) it is fundamental and we can only have innovation and progress with critical thinking, with a critical and disruptive analysis*” (UT6). And this was the case even if it was not always easy to define critical thinking operationally: “*what do I call it? Reflection? Thinking? Do I call it critical thinking? Whatever it is, this is a fundamental skill, the mental gymnastics*” (UT8).

### 3.1.3. Skill Articulation

Although the avowed aim of this study was to understand the perception of trainers and employers regarding which skills they considered most important in defining the employability of job candidates, the fact was that many registration units resulting from the content analysis rejected this dichotomous approach and led to the emergence of an unanticipated category that we have come to call “Skills articulation”. This new category emerged because practically all the interviewees mentioned that what will be essential for future employees is the articulation between different types of skills:

*“I think they are both important, you know? Because if a person only has hard skills, but no soft skills, I think (. . .) their performance in the profession may not be good”* (UT1);

*“They have to be articulated and they have to be built simultaneously and they have to be used simultaneously and, therefore, that is what we try to do here in our study plan” (UT3);*

*“only soft skills do not position anyone, right? Hard skills are the basis, soft skills are the differentiating aspect, so I think we must have both” (UT6).*

### 3.1.4. Training

#### Initial Training

When we tried to ascertain what the trainers thought about the responsibility of higher education institutions (HEI) in preparing for employability, one teacher stood out for having stated that *“in general, institutions do not train for employability (. . .) because in classical European universities (. . .) the university defines what a professional is (. . .) it doesn’t communicate with society in a real way (. . .) the university is very autistic, (. . .) I do not feel that the university asks society, in a real way, (. . .) what competencies your society wants (. . .) professionals to have in order to be useful to you” (UT7)*. We have included this long transcript mainly for two reasons: because it is dissonant with the rest of the peers’ statements but also because it is in line with the generalised opinion whose attempted verification was the origin of this article.

The general tone that emerged from the statements of the other participants was that there is a genuine concern about the quality of scientific and technical training in universities: *“Enabling them with a robust portfolio of competencies, involving hard skills and soft skills, that is fundamental. So, without this portfolio, employability is low” (UT3); “especially hard skills but also including soft skills (. . .) if we have a guarantee that our graduates have acquired these skills throughout the course (. . .) this is a guarantee (. . .) in increasing this employability” (UT5); “First fundamental thing, scientific content, technical content” (UT8)*. But it is also true that there is a deep and growing concern to articulate, within continuing education, the university environment in business contexts. And this is achieved in multiple ways: *“Articulate a lot with the labour market, with employers, companies, public institutions, bring people to the University of Évora (. . .) that can provide students with the opportunity to get to know in advance the reality they will face when they finish the course” (UT3); “provide all these complementary activities that can (. . .) help the student to create a differentiated curriculum (. . .) bring companies, bring the University” (UT6); “it is necessary to see here a constant dialectic between employers and training entities. (. . .) I know and have experience that there has been a path in this direction” (UT2)*.

#### In-Job Training

Although the in-job training concept has a very specific meaning, the interviewed teachers understood it as training undertaken in a practical context. In other words, they considered and referred to curricular and extra-curricular internships, which some of the training courses, particularly in veterinary medicine, encouraged and which students undertook during holidays and inter-semesters. In any case, they highly valued these experiences as very formative: *“the fact that nowadays students do an internship, at least for one semester, is extremely important” (UT1); “we have been making a journey at the level of the curricular plan of our course, particularly in the last year, which is a year where there is this contact with the labour market” (UT3); “in the curricular internship, but also in intermediate internships, this was something that we changed this year in our curricular plan” (UT5)*.

### 3.2. Employers

From the analysis of the interviews with the six employers from the tourism, education, hospitality, consultancy and livestock business areas who agreed to participate in our exploratory study, we isolated 45 registration units, distributed according to Table 2.

**Table 2.** Registration Units (N = 45) by category and subcategory for employers (EE).

Category	Subcategory	EE1	EE2	EE3	EE4	EE5	EE6	Total by Category	%
Hard skills		1	2	1	0	0	0	4	9%
Soft skills	Attributes	9	1	3	3	2	2	20	44%
	Competencies	3	0	1	1	1	1	7	16%
Skill articulation		0	0	1	0	1	2	4	9%
Training	Initial training	0	1	0	1	0	0	2	4%
	In-job training	2	3	1	1	1	0	8	18%
Total registration units		15	7	7	6	5	5	45	100%

The first observation that emerges from the analysis of these data is that only 9% of the registration units targeted hard and scientific skills. In addition, regarding soft skills, employers focused more on psychological and characterological attributes than observable and measurable competencies. The idea of in-job training as responsible for acquiring the competencies needed for employability was also given significant weight.

### 3.2.1. Hard Skills

Contrary to initial expectations that it would be possible to obtain from interviews with employers a broad list of hard and scientific skills that they considered lacking in training, there were few references to these aspects in the responses we obtained. They seemed to expect that candidates would bring generic competencies from the hard and scientific point of view that they would develop and improve in contexts. EE3's statement that *"there always has to be an adaptation of what are minimum competencies, because we are also talking about degrees that have been reduced to three years"* (veterinary medicine excluded) is interesting. It is interesting because it seems to indicate that, with the implementation of the Bologna protocol, expectations have been lowered regarding what can be expected from graduates after they get their degrees. On the other hand, it seems that minimum levels of training are ensured from the point of view of technical preparation: *"while the techniques that have to do with dealing with the programmes that you work with (. . .) are learned in training and, therefore, when the person arrives at their workplace, they usually already know them, they know the competencies of the programmes, they already know how to work with them"* (EE2).

### 3.2.2. Soft Skills

#### Attributes

If we take as a criterion the frequency with which they referred to it, adaptability seems to be the attribute most valued by employers: *"because there is a big question which is, there are no equal companies, right? And as much as they bring knowledge from other places and bring very good training, then they come here and come to a different reality (. . .) and this ability to adapt to realities is extremely important for us"* (EE4). This adaptability was correlated with the ability and willingness to learn, the ability to relate and a certain versatility: *"this question of relationship, question of adaptability, of adapting to situations, of learning, of accompanying"* (EE4), *"ability to do several things"* (EE3).

Other valued attributes were, without repetition, motivation, humility, resilience and determination (EE1), availability (EE3), creativity and serenity (EE6), and initiative and proactivity (EE5).

#### Competencies

Essentially, employers subsumed their references to soft skills under the concept of critical thinking, although the concept has, in this context, a less epistemological and more attitudinal meaning. That is, it refers less to a particular way of thinking and more to the

ability to evaluate situations. *“For me, critical thinking is in the sense of looking at things and realising what I can do differently (. . .) it is an added value for a person to have an opinion and to be able to suggest, as long as these opinions are also based (. . .) on knowledge and not on predefined styles or opinions without foundation”* (EE3). For EE4, critical thinking *“is fundamental. It is mandatory because problems will arise every day and people must be able to deal with them”*. For EE1, *“what makes a professional grow in his career is precisely this ability to have a critical sense (. . .). So, this ability to look at the status quo and say ‘look, I think we can improve this, we can improve that, because it will have this and this consequence’”*.

### 3.2.3. Skill Articulation

This emergent category included four registration units. The idea that the relationships between hard and scientific competencies and soft skills interact in the development of a skilled professional was supported: *“Here in our context, first the soft skills, because we work with the public (. . .) and then we end up developing the hard skills (. . .) the soft skills are the basis for the hard skills”* (EE6). *“It is the hard skills and soft skills that will accompany us and that will limit us, or not, in the face of what we will develop in the company (. . .) if I don’t have soft skills and creativity and hard skills I can’t, for example, compose a project and develop a project”* (EE6).

### 3.2.4. Training

#### Initial Training

There were few references to initial training by employers, who identified it with the acquisition of hard and scientific skills. Therefore, they recognised the validity of the skills acquired in schools but emphasised the learning that employees then do in the context of a company: *“training is very specific, in the sense that you can bring a lot when you can add to the company what you bring of knowledge, of technical knowledge from higher education”* (EE4).

#### In-Job Training

Eight registration units in this subcategory show the importance that employers give to in-job training, which depends on them, their development strategies and their interpretation of problems. *“The truth is that each company has its own reality, doesn’t it? And its specificities, so a new graduate comes in here, must be trained in how we work, and the specificity of the business and must adapt”* (EE5). *“I think that it is when entering companies that the person ends up developing this part and in practice actually realising how things work (. . .). I think that the University can give some light, can give an idea, can give examples, but then I think that they will acquire more in practice”* (EE2).

### 3.3. Combining Data

Below, we present a comparative analysis of the responses of trainers and employers. Table 3 shows the number of recording units obtained per category in one case and the other.

**Table 3.** Category and subcategory percentages for employers and university teachers.

Category	Subcategory	University Teachers		Employers	
		Subcategory %	Category %	Subcategory %	Category %
Hard skills		23%	23%	9%	9%
Soft skills	Attributes	21%	53%	44%	60%
	Competencies	32%		16%	
Skill articulation		8%	8%	9%	9%
Training	Initial	11%	16%	4%	22%
	In-job training	5%		18%	

Interpreting the number of recording units per category as the relative importance within each discourse that each of the categorised themes assumes, we perceived that teachers at HEIs focus more on hard and scientific skills than employers. This may be because, historically and socially, high-level technical and scientific training is expected, and teachers feel bound to this idea.

It should also be noted that, regarding the subcategories of soft skills, the trainers emphasised observable and measurable behaviours. At the same time, employers value job applicants' psychological and character traits, as if these attributes were the determining factors of the employees' potential to evolve within a company and no longer the competencies acquired.

Regarding the training category, the distribution of recording units among the subcategories was almost strictly inverse. This is, of course, because each participant spoke from the reality in which they were inserted and acted without this corresponding to any dissonance in their discourses. We listed all the attributes and competencies mentioned by respondents and distributed them according to who mentioned them, as shown in Table 3. Out of 23 attributes and competencies, only six were mentioned simultaneously by both groups of respondents. They were motivation, creativity, the ability to relate to attributes with critical thinking, communication skills and initiative as soft skills.

By their very nature, the operational definition of these soft skills is extraordinarily difficult. Still, their use in common discourse is frequent, and they, therefore, allow for a broad framework of understanding to be defined about what training should aim for to help meet employers' demands. Suppose one considers that there was no suggestion in the script or in the conduct of the interviews that would have conditioned or biased responses. In that case, it can be concluded that a broad consensus was built on which personal characteristics should be valued in social and labour contexts (Table 4). This is essentially a cultural background common to globalised and technologically advanced societies.

**Table 4.** Attributes and competencies: similarities and differences between university teachers and employers.

	University Teachers	Employers
Motivation	X	X
Creativity	X	X
Interpersonal relationships	X	X
Humility		X
Adaptability		X
Resilience		X
Availability		X
Attributes		
Determination		X
Serenity		X
Learning ability		X
Emotional intelligence		X
Responsibility	X	
Greeting	X	
Maturity	X	
Vocation	X	
Respect for others	X	

Table 4. Cont.

	University Teachers	Employers	
Competencies	Teamwork	X	
	Innovation	X	
	Time management	X	
	Disruption capacity	X	
	Multipurpose		X
	Communication capacity	X	X
	Capacity for initiative	X	X
	Critical thinking	X	X

The results of the implemented content analysis were fundamentally consistent with the data from the literature. In any case, this comparative framework allowed us to verify some facts that, due to the nature and particular conditions in which the study was carried out, may not mean anything but may be sufficiently relevant to prompt further studies. The teachers did not report proactivity, humility, adaptability, emotional intelligence or resilience. The employers did not report teamwork, responsibility, maturity, the fulfilment of duties, time management, creativity, invention or disruptiveness. As we have said, it may not mean anything, but it may also be significant to misunderstandings between the ideal profile of members of work teams, which it will be up to other studies to confirm or disconfirm—even if we realise, and the study confirms this, that depending on the activity area, the culture of relevant communities and the company, there are substantial variations in their valuation of these aspects.

#### 4. Conclusions

As part of the conclusions that can be drawn from the performed content analysis, we found that university teachers consider these soft skills to be fundamental, although their relevance varies by area of study. It is important to introduce the development of these competencies to curricula to empower students with them. These competencies are complex to develop and work on and even more difficult today, as students enter higher education with low maturity levels. From the employers' perspective, soft skills are considered the most critical competencies, and they try to get to know about these characteristics of a candidate by asking specific questions during selection interviews. Once candidates have acquired these types of competencies and general hard skills via initial training, they will easily acquire the necessary specific hard skills in the work context.

Both teachers and employers emphasised the soft skills “critical thinking” and “motivation”. They considered critical thinking to be an essential skill for professional development. The teachers emphasised that this is an underdeveloped competence in students and should be included in the academic pathway. At the level of “motivation”, they considered it fundamental for the student/applicant to thrive in the labour market.

As far as hard skills are concerned, teachers still attach great importance to them. Employers also maintain that these skills are essential but may differ, depending on the job. For instance, the professional performance of an engineer or a veterinary doctor implies more hard skills than the professional performance of a hotel manager. But the employers emphasised that both kinds of skills are needed.

Regarding the labour market–university interconnection, the teachers stated that approximation strategies have been developed with verifiable results, except for one teacher whose statements explicitly denied this statement. The employers agreed, although they admitted that there should be an even greater approximation and accompaniment about internships. Teachers considered it relevant to listen to former students (already in the labour market) and society to understand what the necessary and most valued skills are

and train students more efficiently. Employers believed that HEIs are adequately training students in terms of hard skills and that they should only improve the interconnection with companies and have a greater commitment to the integration of students at companies themselves.

In terms of training, employers consider it essential for companies to continue training their employees. This training can be carried out according to a perceived need or the interest of employees.

As a side note, and because it tells us something important about employers' concerns, more than one employee spoke about the need in the professional training system for more practical professional activities, which may be obtained through technical–vocational courses. Professions such as carpentry and locksmithing are disappearing, and it is increasingly vital to maintain them. However, there are fewer candidates for this type of course.

To conclude, the reflection of lecturer ED4 highlights the importance of the research carried out: “I think is that the University should have this kind of structure that does this kind of self-reflection work, this exactly model, like you did now (. . .) I really thought it was a very interesting work and what is missing is that there are more of these recursive things”. HEIs, together with the labour market, should encourage this type of research to provide increasingly updated education addressing the labour market's needs.

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