Systematic approach to enhance the participation of construction industry SMEs in apprenticeship programs

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Experimental analysis
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Documentary and experimental Report

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Partnership:

- Fundación Laboral de la Construcción (Spain).
- Confederación Nacional de la Construcción -CNC- (Spain).
- Associazione Nazionale e Costruttori Edili -Ance- (Italy).
- Ente per la Formazione e l'addestramento professionale nell'edilizia -Formedil- (Italy).

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SUMMARY

This report belongs to Work Package 3 of the project, "Status quo of in-company tutors in Spain and Italy", and it is the result of the two first activities envisaged in this package:

- **Documentary analysis**, a desk work carried out with the aim of knowing current regulation in force in the two countries related to apprenticeship in the building industry, as well as to identify the specific role of the tutor within the SMEs and their available skill standards and training schemes.

- **Experimental analysis**, based on the documentary analysis above, a field study has been developed in order to identify and define the skills and competencies of in-company tutors. Thus, 121 surveys and 12 interviews in-company tutors have been conducted in this field study.

All this information has been used to set the perimeter of the qualification developed under this project, which is further explained in the following project deliverables: *Final qualification perimeter* (D5) and *Qualification "In-company tutor in the construction industry"* (D6).

BACKGROUND

Before providing a detailed state-of-the-art of the role of the in-company tutor, it could be good to have a clear description of what is Apprenticeship. At this respect, the European Centre for the Development of Vocational Training (CEDEFOP) has proposed the following definition:

Systematic, long-term training alternating periods at the workplace and in an educational institution or training institution. The apprentice is contractually linked to the employer and receives remuneration (wage or allowance). The employer assumes responsibility for providing the trainee with training leading to a specific occupation.

Apprenticeship is not a synonym of 'work-based learning' (WBL), but one of the modalities of this work-based learning, according to the European Commission. Thus, WBL may be one of the following modalities:

- WBL as apprenticeship, in line with the definition indicated above.

- WBL as school-based VET which includes on-the-job training periods in companies;

- WBL integrated in a school-based programme, through on-site labs, workshops, kitchens, restaurants, junior or practice firms, simulations or real business/industry project assignments.

According to this, it can therefore be said that **apprenticeship is a form of WBL, but not all WBL is considered as apprenticeship.**

- **The in-company tutor figure**

The role of the 'in-company tutor' is essential, since his/her proper performance will entail the success of the apprenticeship programmes. This in-company tutor is a worker from the organisation that hosts the apprentices, selected by the company to be in charge of the training programme defined for the apprentice and to act as an intermediary between the company and the training centre which is transferring the apprentice to the company, in order to carry out a follow-up of the training activity provided. Some of the functions that should be performed by the in-company tutor are:

- Planning the training process together with the training centre.
- Keep contact with the trainer from the training centre.
- Participate in the selection of the apprentices (this is recommended, as s/he will be responsible of the apprentice's training inside the company).
- Accompany, train, support, and evaluate the apprentices, together with the trainer from the training centre.

Apart from this, it must be clear that the in-company tutor is also a worker of the company, therefore s/he must be an expert at a professional level, so, at the same time that s/he is training the apprentices, s/he must comply with his/her own activity.

In this sense, it is of high importance not to see the apprentice as an added 'burden', but as a chance to produce growth in the organisation. In a sense, in-company tutor and apprentice are somehow 'colleagues' (the in-company tutor should help the apprentice to integrate in the company and feel s/he is another worker), but taking into account that there should be a hierarchical relationship between them in terms of trainer-student.

The in-company tutor already **knows** 'how-to-do' something; what is important is that s/he also must know how to **transmit** that 'how-to-do' to the apprentice.

APPRENTICESHIP IN SPAIN

APPRENTICESHIP AND IN-COMPANY TUTOR IN SPAIN

In Spain, the introduction of the Dual System for VET is relatively recent, and is regulated by a law launched in 2012: RD 1529/2012 from 8 of November, by which the 'Contract for training and apprenticeship' is developed and the basis for the Dual VET are established.

This national rule defines Dual VET as the group of training actions and initiatives aimed at improving the workers' professional qualification by means of alternated periods of labour activity in a company and training activity provided by a training centre.

This training may be received in the framework of the Official Vocational Training (managed by the Ministry of Education) or in the framework of the Vocational Training for Employment (managed by the Ministry of Employment). In this context, this Royal Decree provides for two types of work-based learning – contracts for training and apprenticeship on the one hand (Employment side), and dual vocational training (in the Education system) on the other; both have been gradually implemented on the basis of a regulation from the Ministry of Employment and Social Security (ESS/41/2015).

Those young people with contracts for training and apprenticeship (VET for employment) are considered as regular workers, therefore there is a remuneration established in a collective agreement that cannot be lower than the inter-professional minimum wage (€735,90 in 2018) according to the number of hours worked.

For the young people in dual vocational training (regular Education system) there is no employment contract, therefore remuneration is not compulsory, although discretionary scholarships are usually paid.

At this stage, it is important to stress that the certificates obtained by the contracts for training and apprenticeship (Professional Certificates) are not officially recognised by the Ministry of Education.

Apprenticeship (through Dual VET System) in Spain has been increased in the recent years; according to the Monitoring Report by Ministry of Education for years 2013-2014[1], this increase has been higher than 200% (4,292 in 2013 and 9,555 in 2014).

Also apprenticeship through Contract for Training and Apprenticeship has been increased: in the year 2015 a total of 143,795 young people were involved in this type of contract. The tendency onwards has been continuous in the recent years[2], as shown in the image below.
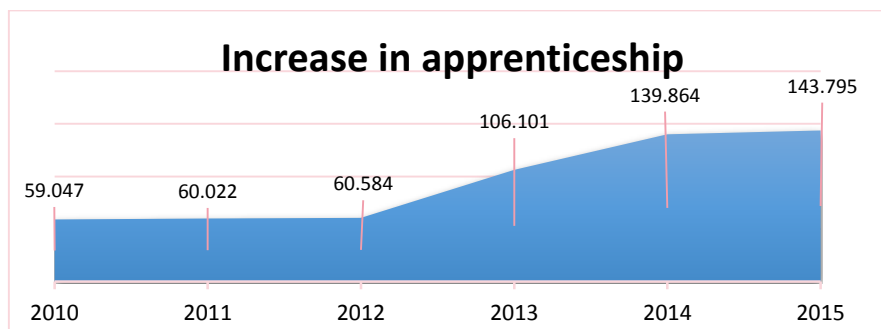
It can be said that this increase in participation in apprenticeship programmes is a direct consequence of the changes occurred in Spain after the launching of the mentioned regulation. However, the rate for transition from contracts for training and apprenticeship to an indefinite work rate is quite low (less than 5%), according to the information provided by the National Employment Service (https://www.sepe.es/).

Regarding the actors involved in apprenticeship, they are the following:

- Training centres where the VET programme is provided.
- Tutor from the training centres. It is usually one trainer/teacher in charge of programming and monitoring the training provided in the company, together with the in-company tutor.
- Companies, as the place where the student (apprentice) will perform the professional part of the training.
- In-company tutor, who is the worker designed by the company to be responsible of the training of apprentices.
- Apprentices, who are the students involved in apprenticeship.
- Other intermediary bodies. According to Law 4/2014[3], it is possible for Employers Associations and Chambers to participate together with the competent administrations

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[1] http://www.mecd.gob.es/prensa-mecd/dms/mecd/prensa-mecd/actualidad/2014/01/20140113-fpdual-bankia/informe-seguimiento-fpdual.pdf

[2] https://www.sepe.es/contenidos/que_es_el_sepe/estadisticas/datos_estadisticos/contratos/datos/estadisticas_nuevas.html

[3] Law 4/2014, de 1 de abril, Básica de las Cámaras Oficiales de Comercio, Industria, Servicios y Navegación.

in the organisation of the practical training carried out in the companies, especially with regards to the selection of working centres, training the in-company tutors, and evaluation of the accomplishment of the training programmes.

The modalities by which the apprentice may be hired are the following:

- Contract for Training and Apprenticeship, by which the apprentice receives a salary, as any other regular worker.
- Internship, which may vary according to the different Regions.

The following table shows the most relevant differences between both modalities:

MODALITY	TARGET	WORKING TIME	RETRIBUTION	DURATION	OTHER FEATURES
CONTRACT FOR TRAINING AND APPRENTICESHIP	Young people between 16-30 years	Max. 75% of the maximum legal working period during the 1st year Max. 85% during 2nd and 3rd year	Never must be below the minimum wage, (€707,60) according to the number of hours worked	1 year minimum 3 years maximum	Contribution to Social Security 100% incentive for SMEs 75% incentive for larger companies (+250)
INTERNSHIP	Apprentices in general (no specification of age)	Minimum 33% in the company	May vary according to the different Regions (in some of them there is a compulsory minimum wage)	N/A	Contribution to Social Security 100% incentive if registered as external curricular practices for VET students

In both cases, the apprentice must be inscribed in the Social Security, because they are assimilated to a regular employee whose conditions are the ones included in the General Social Welfare regulations for persons participating in training actions.

However, the apprentice is not allowed to shift-working and night-working within the modality of contract for training and apprenticeship, neither to work on a part-time basis. In the case that the company has carried out an adjustment plan of the labour force, it won't be allowed to hire an apprentice to cover one position that has been downsized.

For both modalities -training contract and internship- there are a series of limitations that are established in the corresponding regulation:

- Internship: R.D. 1493/2011, of October 24, about the terms and conditions for the inclusion in the General Social Welfare for apprentices participating in training programmes.

- Contract for Training and Apprenticeship: R.D. 1529/2012 from 8 of November, by which this type of contract is developed and the basis for the Dual VET is established.

The company should participate in the selection of the students, as they are investing time and resources in their training. The in-company tutor should take part in this selection, since s/he is the person that will be responsible for the company training.

- **The role of the in-company tutor in spain**

The national regulation makes significant emphasis on the in-company tutor. His/her functions are defined in article 20 of the RD 1529/2012 (and other subsequent regulatory Orders):

1. Permanent communication with the tutor from the training centre.

2. Coordination of the labour activity in accordance with the training activity, by elaborating a training programme together with the training centres, where the learning outcomes to be achieved by the apprentice will be defined, as well as to carry out a monitoring of the student's evolution and cooperate with the training centre in the learning evaluation.

3. Provision of counselling and advice towards the apprentice about occupational health and safety.

4. Elaboration of a final report about the performance of the apprentice and the learning outcomes achieved in the company.

The in-company tutor must be a worker of the company and the working hours should be coincident with the ones assigned to the apprentice. Of course, should own the proper qualification and experience to be able to train the apprentice. Also, a high motivation to train and make a follow-up on apprentices should be present. In this sense, it is highly recommended to provide training for the in-company tutor, in order to ensure that s/he will comply with this new task in an optimal manner, thus guaranteeing success of the programme.

Legally, there is no limit regarding the number of apprentices that may be trained by one single in-company tutor, but, in any case, this number should allow the tutor to carry out her/his functions correctly, both the ones for tutoring and monitoring apprentices and the ones related to the work in the company as an employee.

At this respect, the Order ESS/41/2015 establishes an additional monthly bonus of between 60 and 80 euros for the company, as a compensation for the working hour devoted to the tutorship labour made by the in-company tutor[4].

However, even if the role of the in-company tutor is legally recognised in Spain, the persons who carry out this role are not always recognised as such in some companies. Furthermore, there is no official recognition of this role at national level.

Different organisations have been interested in developing the profile of the in-company tutor, and different material may be found online. One of the most active entities regarding the promotion of the dual training in Spain is *Fundación Bertelsmann*, devoted to the promotion of the social change through innovative proposals. It has developed different projects and initiatives regarding the introduction and broad usage of the dual system in Spain and concretely, it has been a promoter of the Alliance for the Dual Professional Training, together with different relevant organisations concerned with employment (CEOE, Spanish Chamber of Commerce, *Fundación Princesa de Girona*…), which is a national network of more than 500 companies, training centres and institutions committed to the improvement of the youth employment through the development of a quality Dual VET system. It is noteworthy that currently, the Alliance is specifically focused on supporting the VET provided within the Educative System (Ministry of Education), but it is not active in the VET for employment (the one provided by the Ministry of Employment).

- **Competence standards and training schemes in spain**

With regards to training programmes and actions specifically addressed towards those workers playing the role of in-company tutors, it must be said that although this figure is legally recognised, there is neither an official training of application for these cases, nor a specific professional qualification for this professional profile.

Despite this, several courses may be found available, especially to be delivered online; most of them are offered by employers' associations, consultancy/training providers and/or trade unions, chambers of commerce. Also, several projects funded by European funds have dealt with this topic, such as Dual-T[5] (Erasmus+) or DualVET[6] (Lifelong Learning Programme).

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[4] Apart from this, the companies receive a range of incentives for the use of the Contract for Training and Apprenticeship, concretely a reduction of up to 100% on the Social Security during the time of the contract duration and, in the case that the apprentice is afterwards hired in a definitive basis, the company will have the right to an incentive of €1,500/year during 3 years.

[5] http://dual-t.com/

[6] https://www.youtube.com/watch?v=sXhSRoSFxuU

During the research stage of the Co.Tutor project, different course programme designs have been consulted, being the contents quite similar and focusing on aspects such as:

- What is apprenticeship and what is dual VET system.
- Advantages of dual VET.
- The role of the companies in dual VET.
- Typology of apprenticeship programmes.
- Functions and tasks of the in-company tutor.
- Methodological and pedagogical aspects.
- Typology of apprentices.
- Needed competences and skills (mainly soft skills).
- How to carry out monitoring, tutorship and evaluation.

These training actions are planned to serve the in-company tutor as a tool for acquiring knowledge, skills and competences that will support the tutorship function in an optimal way. However, the existence of a high motivation towards training (both in terms of receiving and providing) is essential, since a lacking of motivation will make the tutor to consider this tutoring task as an added load to the work to be performed in the company.

Regarding the professional qualification, there is not any official acknowledgment. The basis of the Co.Tutor project states that it is essential to have a standardised qualification to help these in-company tutors to have their competences recognised, as one way to supporting apprenticeship programmes in the companies.

APPRENTICESHIP REGULATION IN SPAIN

Spanish Dual VET system (inscribed in the official Educative model) is standardised by a national regulation and by different regional regulations, since each Spanish Region may develop its own model. Below, the basic national regulation is compiled:

- **Law 8/2013 for the improvement of the educative quality**.

- **Royal Decree (RD) 1529/2012, by which the contract for training and apprenticeship is developed, and the basis for Dual VET are established**. This is the main rule dealing with Dual VET in Spain.

- **Order ESS/2518/2013, by which the training aspects of the contract for training and apprenticeship are regulated**. This order has been eventually modified by Order ESS/41/2015.

- **Law 4/2014, Basics for Official Chambers of Commerce, Industry, Services and Navigation**. At this respect, it is important to stress that the Spanish VET structure is different from other countries, since in Spain the educative authorities are the only ones in charge of defining, improving and monitoring the system. However, with this Law 4/2014 it is foreseen that business chambers and/or organisations may "participate, together with the competent administrations, in the organisation of the practical training in the working centres, included those belonging to official VET and the actions and initiatives of Dual VET, especially the selection and validation of working centres and companies, in the appointment and training of tutors and in the control and evaluation of the compliance with the training programme, without prejudice to the functions that could be conferred to the enterprising organisations in that field." Since the Spanish productive system is mainly composed of SMEs and micro-companies, many of them will need to be supported by these enterprising associations in order to be able to deliver training within the Dual VET system. This means that these associations may have a crucial role in this scenario.

Apart from these national regulations, it is important to know that each Region will have its own, which must be considered by both the training centre and the company where the apprentice is going to be trained, always to be aligned with what is established by the competent regional bodies.

When one company has decided to be part of Dual Vocational training programme, it will need to sign a training agreement with the corresponding training centre, including, at least, the following aspects:

- Name and contact information of legal representatives, in-company tutor(s) and training centre.
- Training programme(s) that are going to be covered.
- Hiring modality for the apprentice.
- Number of participating apprentices.
- Evaluation and monitoring plan by the company and the training centre.
- Schedule and number of hours that the apprentice must comply with during the in-company training.
- Insurance covering the apprentice during the stay in the training company.

To make sure that this agreement is being correctly done, it will be necessary to check the regional regulation. This document will be the guidelines during the whole apprenticeship programme.

APPRENTICESHIP IN ITALY

APPRENTICESHIP AND IN-COMPANY TUTOR IN ITALY

There are partial and non-detailed data from sectorial economic surveys covering the first nine months of 2016 where apprentices were about 15,000. In Italy, apprenticeship is a mixed job contract, that is to say, an employment contract that provides training and actual job performance. External training is usually provided by the building schools system coordinated by Formedil and supported, when not funded by individual regional administrations, by mandatory contractual training contributions for training.

The regulatory of the apprenticeship, defined by Inter-Confederal agreements or national collective labour agreements, must be established about the retributive treatment, that the grading of the apprentice should be in two levels less than those expressed by application of the national collective labour agreements to workers who cover corresponding qualifications to those which hereby the apprenticeship is finalised or, in alternative, to establish the remuneration of the worker in percentage measurement and proportioned to the working seniority.

The standard skills of the tutor have not been defined by national and regional regulations; they have been studied by training operators and institutional research figures, so that Isfol (currently called Inapp), has drawn up the tutor's manual.

http://www.isfol.it/pubblicazioni/highlights/manuale-del-tutor-per-lapprendistato

Moreover, there are cases of training courses provided by the building schools system, courses financed by individual regional administrations ranging from a minimum of 8 to a maximum of 16 hours.

Also the Formedil developed the vademecum about the in-company tutor within the text "Young People and Construction".

APPRENTICESHIP REGULATION IN ITALY

Regulatory framework about apprenticeship in Italy and the tutor's figure role

In recent years, the apprenticeship contract has been subject to various legislative measures with the aim to implement its use and encourage youth employment.

The last reform was carried out in the framework of labour market reform called "JOB ACT", with the Legislative Decree no. 81 of 2015 and subsequent amendments, according to which the apprenticeship contract, qualified as permanent, is divided into three different types:

- Apprenticeship for the qualification and the professional qualification, the high education degree and the higher technical qualification certificate (from 15 to 25 years old), defined as *first level apprenticeship*. This type, lasting no more than three or four years in the case of a four-year professional qualification, is carried out during the school-educational path and therefore also fulfils the school obligation;

- Professional apprenticeship (from 18 to 29 years old); for those who are already in possession of a professional qualification it can start at the age of 17, defined *apprenticeship of the second level*. This is the most widely used formula by companies in general and, in particular, by construction companies. Practical training is carried out mainly in the company after the individual training plan organised between student, company and training centre in the construction sector (construction schools). Basic and transversal training by law must be no more than 120 hours in the three-year period. For the professional internship training within the company, thanks to the agreement of 18 April 2012 (Confindustria - *Confederazione Generale dell'Industria Italiana-* and Trade Unions), it must be at least 80 average hours a year, including training on safety. This type of apprenticeship cannot exceed 3 years and up to 5 years for specific professional figures. The external training provided by construction schools is sometimes funded by regional administrations or Fondimpresa (*Fondo interprofessionale per la formazione continua* di Confindustria, Cgil, Cisl e Uil).

- Apprenticeship of high education and research (18-29 years old) with a high school certificate or a vocationally-trained *third level apprenticeship* degree, designed to obtain university and higher education qualifications. In this case, the company prepares the individual plan with the university system.

The restyling of the institutes was carried out with the aim of re-establishing their use as a training and working tool at the same time, though, in particular, accompanying, developing and strengthening actions of the "dual system".

A review was carried out in line with the Community guidelines and the consequent entry into force of Law no. 107/2015 -the so-called "Good School" Law-, which, in the reform of the national education and training system, made the school-work alternation as a structural component of the training offer since the school year 2015/2016, for all students in the final three years of upper secondary education (minimum 400 hours in technical and professional institutes - minimum 200 hours in high schools).

Apprentices from the first and third levels (as explained above) integrate into a "dual system" (training and work) where the acquisition of education and training qualifications can also be achieved through learning made at the enterprise.

In these first and third levels of apprenticeship, the employer is relieved of all remuneration for the hours of education made at the school institution. For the employer's training hours, the apprentice receives a salary of 10% of what it would have been according to the specific contractual disciplines defined at a national level.

First and third level apprenticeships are also ruled by the Ministerial Decree of October 12, 2015 regarding the definition of the relevant training standards and general criteria for the realisation of the paths. This decree also regulates the figures of the in-company tutor and the training tutor.

For the abovementioned types (1st and 3rd levels), the Inter-Confederal Agreement in May 18, 2016 (Confindustria – Trade Unions) has also decided, with regards to remuneration, for the sectors lacking of a specific contractual discipline.

In October 2017, a Memorandum of Understanding was signed between the Miur (Ministry of Education and Science and Research) and Anpal (National Labour Policy Agency), with which the presence of a "tutor for job alternation" in Secondary Schools is guaranteed. This figure is accompanied by internal tutors and school leaders to facilitate and support the development of actions to encourage the activation of job alternation paths.

FIELD WORK

The documentary analysis has been useful for the Partnership to set clear information about the Spanish and Italian apprenticeship systems, and to find relevant information to be used to prepare the field work envisaged in the project.

According to the project, two investigation techniques were to be applied:

- Quantitative, by means of on-line **survey questionnaires** geared towards construction workers who are currently acting as in-company tutors, with the aim of identifying which are the main skills and competences that an in-company tutor must own.

- Qualitative, by means of **personal interviews** to tutors or in-company tutors, especially from the construction industry. The information extracted from interviews serve as a complement of the quantitative data previously collected and provides first-hand information about the key skills and competences to be owned by in-company tutors.

Prior to the implementation of these techniques, a participative methodology called **'World Café'** was used by the partners of the project during the 3rd international meeting (held on the 5th of October, 2017), to get basic information about the main skills needed by the in-company tutors. Its results have been useful to be compared to the results obtained in the following stages (surveys and interviews).
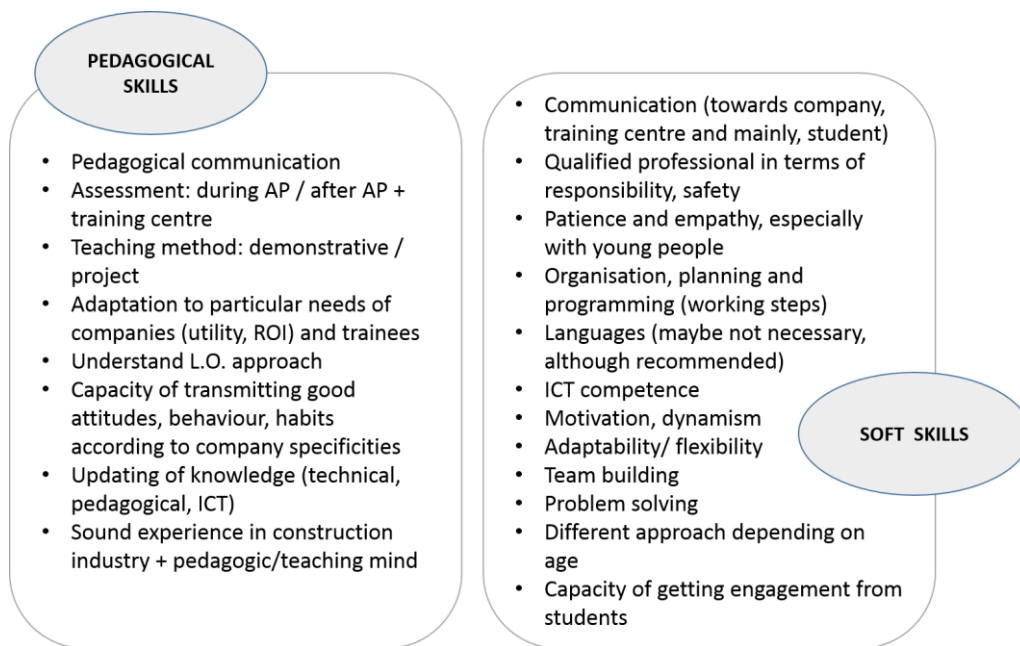
Within the next section, results from World Café technique, surveys and interviews are analysed. This information will be the basis for the qualification perimeter to be designed in the subsequent project phase.

WORLD CAFÉ

During the third international meeting of the project (Oct.2017) celebrated in Madrid, the project coordinator proposed to carry out a group dynamic that was to be used to get relevant information about which were –according to the partners' opinion- the main skills, both pedagogical and soft, that should be owned by the persons who are to play the role of the company tutor in the construction industry.

This technique is based on a methodology that promotes dialogue among members belonging to small groups joined with the aim of replying to a specific question; two 'worlds' were created, 'World Pedagogical Skills' and 'World Soft Skills'. The participants were divided into these two worlds and each group spent 10 minutes discussing about the topic assigned for them, thus allowing the participation of each member. After 10 minutes, each group moved to the other 'world', this way, it was allowed to have the opinion of all members about both issues.

Finally, the replies from partners were written down by the designed 'president' of each world. During the implementation of this technique, the following skills were finally identified:

PEDAGOGICAL SKILLS

- Pedagogical communication
- Assessment: during AP / after AP + training centre
- Teaching method: demonstrative / project
- Adaptation to particular needs of companies (utility, ROI) and trainees
- Understand L.O. approach
- Capacity of transmitting good attitudes, behaviour, habits according to company specificities
- Updating of knowledge (technical, pedagogical, ICT)
- Sound experience in construction industry + pedagogic/teaching mind

SOFT SKILLS

- Communication (towards company, training centre and mainly, student)
- Qualified professional in terms of responsibility, safety
- Patience and empathy, especially with young people
- Organisation, planning and programming (working steps)
- Languages (maybe not necessary, although recommended)
- ICT competence
- Motivation, dynamism
- Adaptability/ flexibility
- Team building
- Problem solving
- Different approach depending on age
- Capacity of getting engagement from students

These results were used as the basis for the tasks that were carried out afterwards (design of questionnaire for survey and interviews).

ON-LINE SURVEY

Description

Main stages in the elaboration of the survey

Problem formulation

Bibliographic revision

Definition of objectives

Delimit the units: sample design

Selection of survey type: personal, telephone, mail

Available resources and time

Questionnaire design

Administration of the questionnaire: fieldwork

Question coding and questionnaire debugging

Data processing and analysis

Report writing

Source: Cea D'Ancona, M.A. (2001)

The survey questionnaire designed by the Partnership represents the in-company tutor's opinion with the aim to promote the participation of the construction SMEs in apprenticeship programmes. This information will be used to set a perimeter proposal of the qualification *In-company tutor in the building industry.*

The questionnaire has been addressed to workers that are currently acting as in-company tutors in construction, being recognised as such or not. The questions relate to knowledge, skills and competences relevant for the performance of their role as in-company tutors.

The aim of this questionnaire has been to identify which are the main skills and competences that a worker performing the role of in-company tutor must own, in order to get information to design a proposal for a new professional qualification for the in-company tutors in the European construction sector, thus improving their training and professional performance.

The survey was started with several questions addressed to get information about the profile of the respondents. Then, different indicators have been grouped in two sections: **pedagogical skills and soft skills,** in which the respondents have been able to show their perception about the relevance of a series of the items proposed.

Pedagogical skills contained 33 skills classified in three areas:

- A. Training planning and implementation
- B. Evaluation of the training process
- C. Training innovation and improvement

The section referred to **soft skills** contained 32 general skills.

In all the cases, each skill was associated to a raking score, where respondents had to evaluate to what extent they mastered those skills. The ranking score had 5 options:

1. Not familiar with it

2. Understand but cannot implement

3. Understand it and might implement

4. Good knowledge and can implement

5. Deep knowledge and teaching skills on it (even to train others)

The replies to the questionnaires have been collected between December 2017 and March 2018. The survey was translated into the two project languages, Spanish and Italian with the name *Co.Tutor. In company's tutor competences*. 131 answers have been achieved: 66 from Italy and 65 from Spain. However, not all respondents answered all questions, therefore, only valid answers have been considered for analysis. The links to the survey are:

- Spanish questionnaire: https://www.surveymonkey.co.uk/r/VLKLTXZ

- Italian questionnaire: https://www.surveymonkey.co.uk/r/VK8ZQDG

Survey data analysis

Section I – In-company tutor profile

The first part of the questionnaire aimed to characterise the in-company tutor profile, asking country, age, gender, educational level completed, years of experience in the construction industry, current occupation in the company, years of experience as in-company tutor, No. of apprentices trained during their experience as tutor, how many apprentices can s/he train at the same time, recognition as in-company tutor within the company, knowledge about her/his functions as in-company tutor, knowledge about the VET system and the apprenticeship programmes in the country.

The sample consists of 131 trainers who answered the questionnaire and whose answers will be analysed next. In the graphs the values are rather presented in percentage and/or rounded to the unit, for a better understanding and visualization.

Question 1: Country

As previously indicated, 65 questionnaires were collected in Spain and 66 in Italy. In both cases the foreseen target number has been reached (it was fixed at 50 per country).
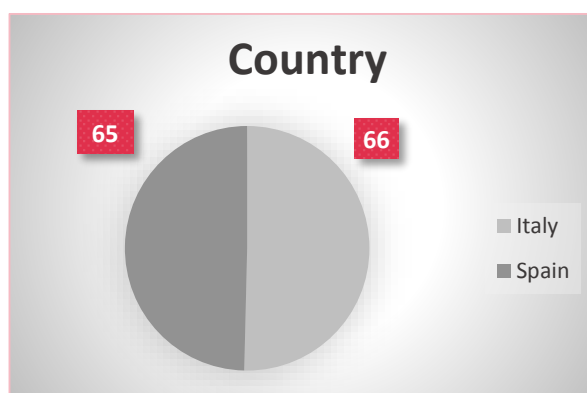

Figure 1. Number of answers by country

Question 2: Age

Most respondents belonged to the age range 40-49 years old, corresponding to 52% of the sample (65 persons), followed by 50-59 years old (25.6% of respondents, 32 persons).
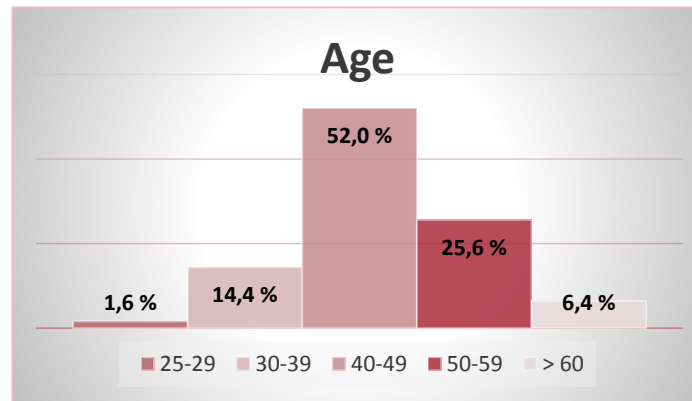
Figure 2. Percentage of answers relative to the age group

Question 3: Gender

As expected, there has been a majority of men versus women (76% of men vs. 24% of women), to be assumed in a mainly masculine industry.

Figure 3. Proportion of men and women

Question 4: Highest level of studies completed

Almost 80% of respondents have reached an educational level higher than secondary school, being the university ones the most representatives, with a percentage of 57%. The lowest value correspond to primary education (5%).
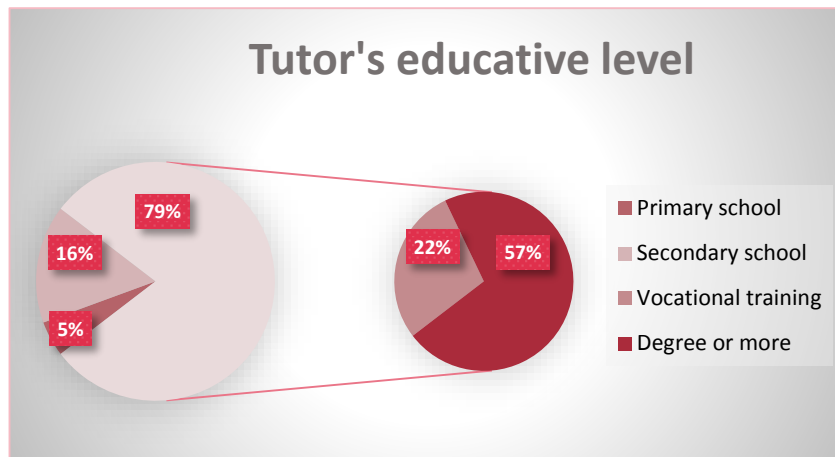
Figure 3. Percentage of answers relative to the level of studies

Question 5: Years of experience in the construction sector

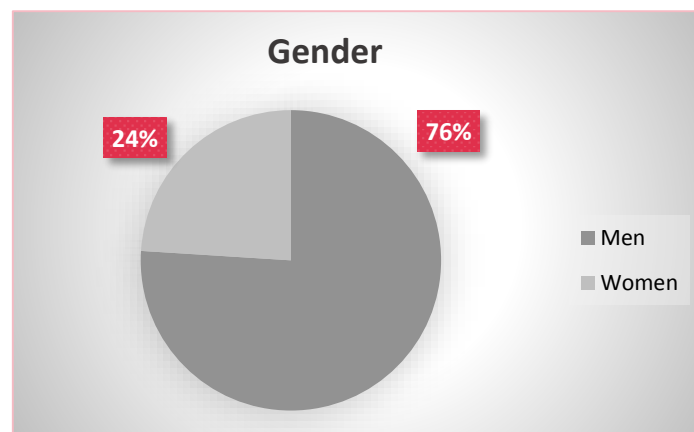The professional experience of the respondents in the construction industry is of high value, since most of them have been working in the sector for more than 15 years. This is directly connected with the age of the respondents, whom, as previously indicated, are majority in the range of age of 40-59 years old.

Figure 4. Percentage of answers relative to the experience in the building industry

Question 6: Current occupation in the company

According to the information provided by respondents in Italy and in Spain, the majority of the workers assuming the role of company tutors are the managers of the company. In this category they are included Managers, Directors and Administrators.

Other occupations that have been indicated by respondents are: technical, H&S technicians, trainers, engineers, architects and construction professionals/workers.

Question 7: Years of experience as in-company tutor
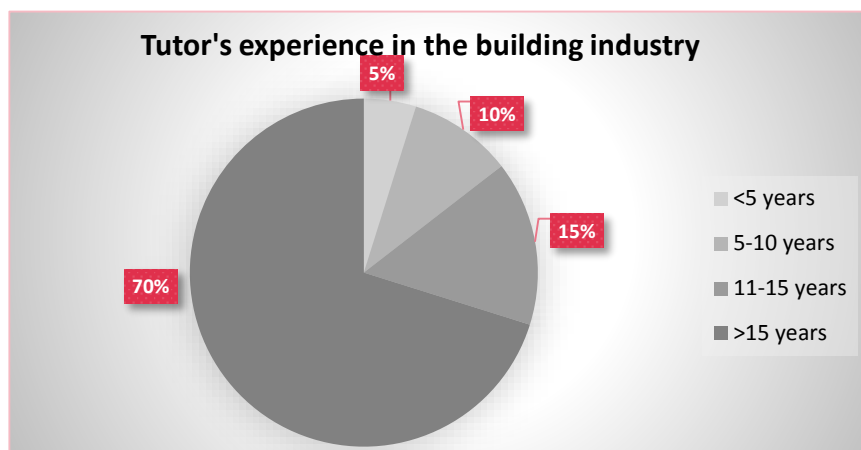
As indicated in the following figure, most respondents have had an experience higher than 10 years as company tutors (43 persons). However, a good number of respondents (31) indicate that their experience as tutor is lower than 1 year.

Experience as in-company tutor

<1 year	26,1
2-5 years	22,7
6-10 years	15,1
>10 years	36,1
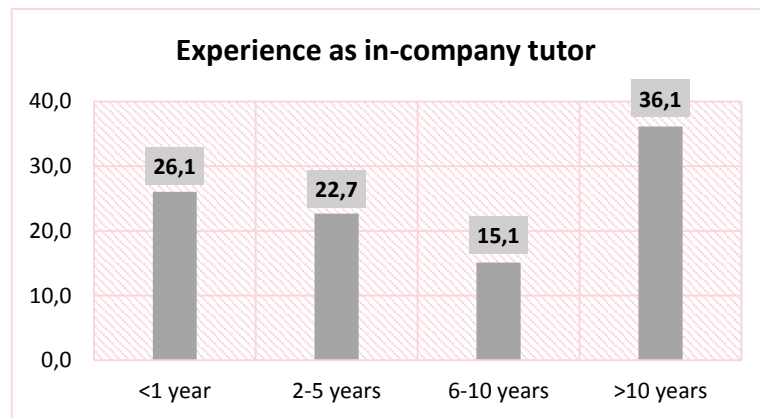
Figure 5. Percentage of replies relative to the experience as an in-company tutor

Question 8: Number of apprentices trained during their experience as tutor

Considering that most respondents have a long experience as company tutors, it is to be expected that they have trained a good number of trainees during these years, as it is confirmed in the figure below. The data indicate that 35.5% (43 respondents) have trained more than 10 students during their years as tutor.

No. of apprentices trained

1	20,7
2-5	28,9
6-10	14,9
>10	35,5
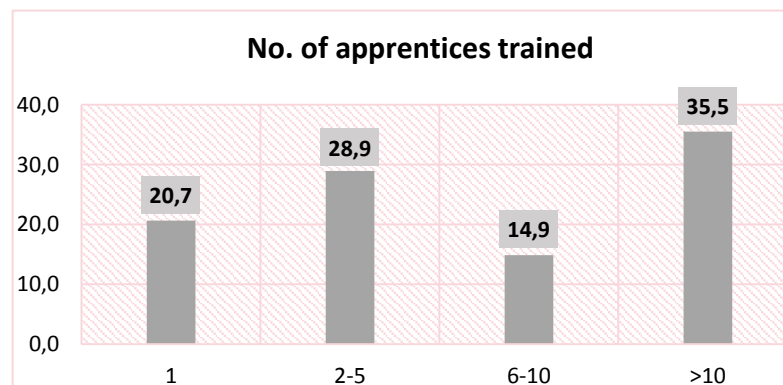
Figure 6. Percentage of answers relative to the number of apprentices trained during their experience as company tutors

Question 9: How many apprentices can you train at the same time?

It seems that to carry out a good labour as in-company tutor, the maximum number of apprentices to be trained at the same time should not be higher than five, as shown in the following figure. Joining results between 1 and 5 makes a total percentage of 78% of respondents.
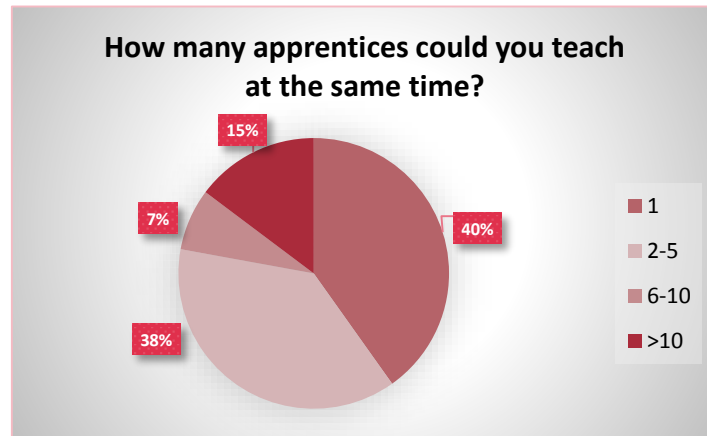
Figure 7. Percentage of answers relative to the number of apprentices trained at the same time

Question 10: Are you recognised as in-company tutor within the company?

Among the respondents, almost 70% (85 persons) of them receive a recognition of their labour as in-company tutors, versus 30% of company tutors that are not recognised as such.
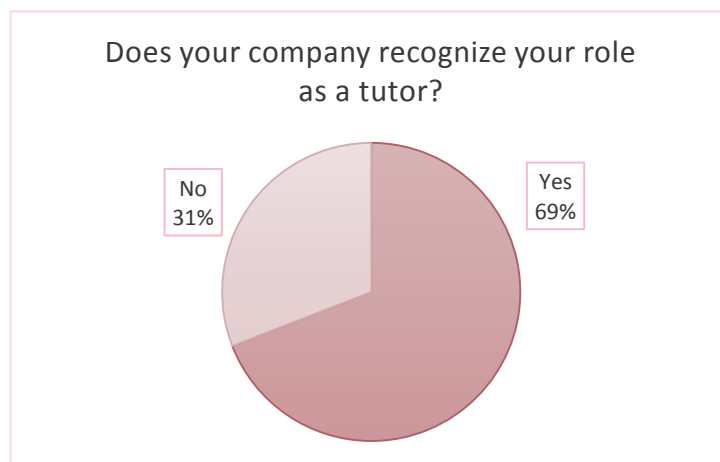
Figure 8. Percentage of answers relative to the tutor's recognition by their company

Question 11: Have you been explained your functions as in-company tutor?

According to the information extracted from the survey, most in-company tutors (94 individuals) have a clear idea about what their functions are, due to clear explanations by the company.
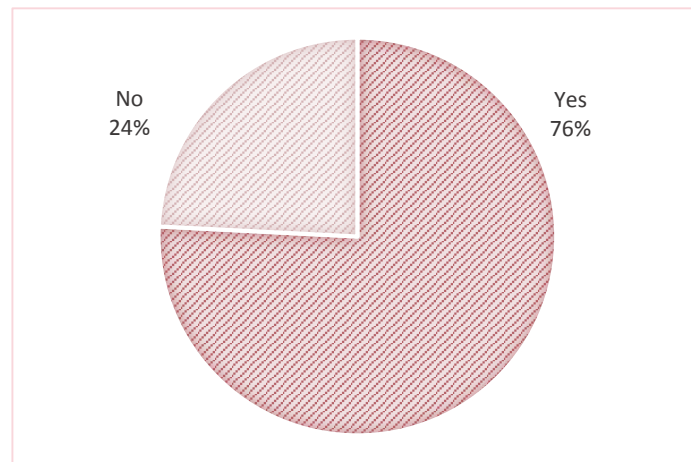
Figure 9. Percentage of answers relative to their knowledge about their functions as in-company tutors

Question 12: Do you have knowledge about the VET system and the apprenticeship programmes in your country?

More than 65% of the respondents (81 persons) confirm that they own knowledge about the apprenticeship system in their country.
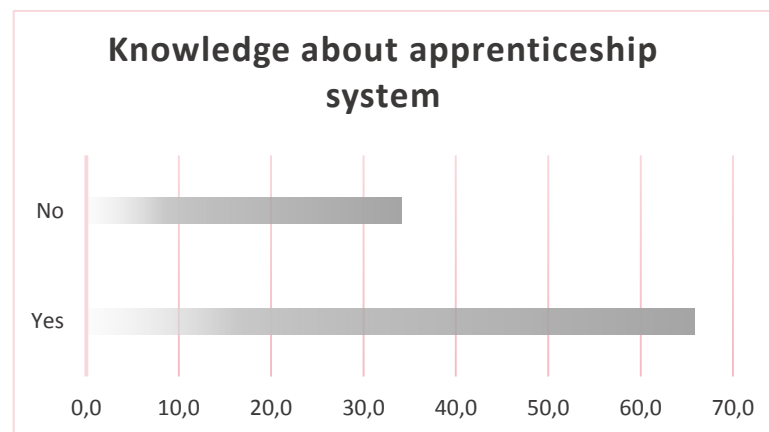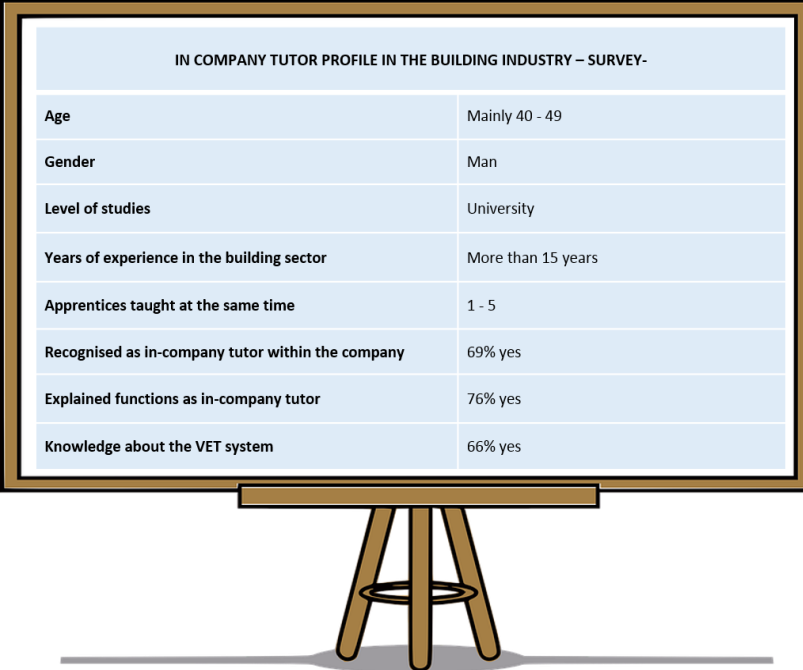
Figure 10. Percentage of answers regarding knowledge about national apprenticeship programmes

IN COMPANY TUTOR PROFILE IN THE BUILDING INDUSTRY – SURVEY-	
Age	Mainly 40 - 49
Gender	Man
Level of studies	University
Years of experience in the building sector	More than 15 years
Apprentices taught at the same time	1 - 5
Recognised as in-company tutor within the company	69% yes
Explained functions as in-company tutor	76% yes
Knowledge about the VET system	66% yes

Table 1. Main features of the in-company tutor's profile

Section II – Pedagogical Skills

As indicated above, the section on pedagogical skills section is divided into three thematic areas:

A – Training planning and implementation;

B – Evaluation of the learning process;

C – Training innovation and improvement.

Each thematic area was classified in 5 levels of knowledge or application, as follows:

- Level I. Not familiar with it
- Level II. Understand it but cannot implement
- Level III. Understand it and might implement
- Level IV. Good knowledge and can implement
- Level V. Deep knowledge and teaching skills on it (even to train others)

For each of the skills proposed, the respondent had to evaluate to what extent s/he mastered it, according to the five levels indicated above.

Thematic area A – Training planning and implementation

Question 13. Please, evaluate to what extent you master the skills below.

In the following table the global results of the survey are shown:

Table 2. Results for Training planning and implementation

TRAINING PLANNING AND IMPLEMENTATION

		Level I. Not familiar with it			Level II. Understand it but cannot implement			Level III. Understand it and might implement			Level IV. Good knowledge and can implement			Level V. Deep knowledge and teaching skills on it (even to train others)		
		ES	IT	Total	ES	IT	Total	ES	IT	Total	ES	IT	Total	ES	IT	Total
A01	Analysis of the characteristics of the apprentices (needs, interests, expectations, previous knowledge)	0	3	3	1	5	6	10	24	34	32	11	43	16	2	18
A02	Formulate and adapt the training objectives to the apprentice	0	2	2	3	5	8	14	24	38	30	9	39	12	5	17
A03	Select and sequence training contents	0	1	1	4	6	10	17	25	42	24	7	31	14	7	21
A04	Design and organisation of activities and methodologies related to the objectives and contents, considering the apprentices' characteristics	1	2	3	5	5	10	16	24	40	25	9	34	11	6	17
A05	Selection, elaboration and preparation of training material	0	1	1	6	6	12	17	19	36	19	16	35	17	4	21
A06	Timing the programme contents	0	4	4	5	7	12	17	17	34	26	13	39	11	4	15
A07	Adaptation to the training curriculum of the VET centre and communication with the trainers	1	5	6	2	5	7	18	19	37	23	15	38	15	1	16
A08	Plan the apprentice's progression according to the different learning periods	0	1	1	2	6	8	16	20	36	23	17	40	18	1	19
A09	Searching information relevant for the training process	0	6	6	5	8	13	13	18	31	24	12	36	17	1	18
A10	Information about National Qualification Framework & European Qualification Framework	10	12	22	8	9	17	23	19	42	12	4	16	6	0	6
A11	VET system structure and functioning	7	11	18	6	8	14	24	21	45	15	4	19	7	1	8
A12	Clear information about what is apprenticeship	2	7	9	2	4	6	15	23	38	29	8	37	10	3	13
A13	Certainty about what are practices and what are not	2	1	3	1	3	4	13	21	34	27	16	43	16	4	20
A14	Understanding learning outcomes approach	3	0	3	1	5	6	17	23	40	25	15	40	13	2	15
A15	Use training tools available in line with the trainees' needs	0	1	1	5	3	8	13	23	36	24	13	37	17	5	22
A16	Use of specific tutoring strategies	2	4	6	7	6	13	16	21	37	20	11	31	13	1	14
A17	Diversify learning methods and techniques	0	3	3	5	4	9	16	22	38	24	15	39	13	1	14
A18	Use different methodologies adapted to the apprentices' diversity and characteristics.	0	3	3	6	7	13	15	20	35	26	12	38	12	3	15

TRAINING PLANNING AND IMPLEMENTATION
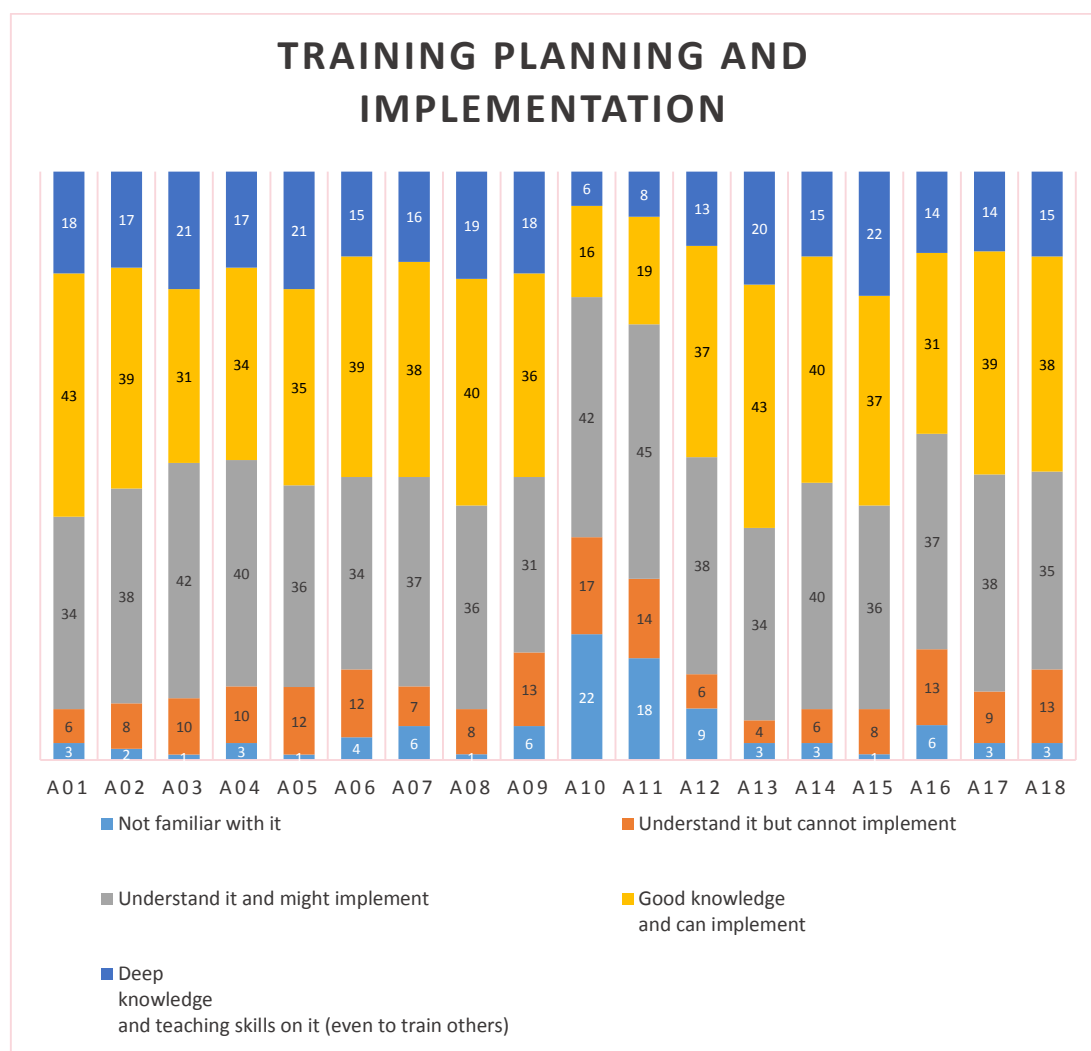
Figure 11.a. Results for Training planning and implementation (common)

Table 2 and Figure 11.a compile the results for thematic area A (Training planning and implementation) in terms of number of answers (commonly and individually) for each topic.

The analysis of the data shows the following:

- Topics A10 (Information about National Qualification Framework & European Qualification Framework) and A11 (VET system structure and functioning) are the ones that show a higher lack of knowledge among the respondents, and only a few of them master these skills. The difference level of knowledge is rather significant in relation to the other topics. Also, there is a significant difference between respondents in Spain and Italy, especially in the categories 'Good knowledge' and 'Deep knowledge': the number of Spanish individuals who claim to have good/deep knowledge on these topics is far distant from the number of Italian respondents with the same knowledge level (see table 2).

- The rest of the topics (apart from A10 and A11) seem to show a relative similarity in terms of common results, that is, levels III (Understand it and might implement) and IV (Good knowledge and can implement) of the scale.
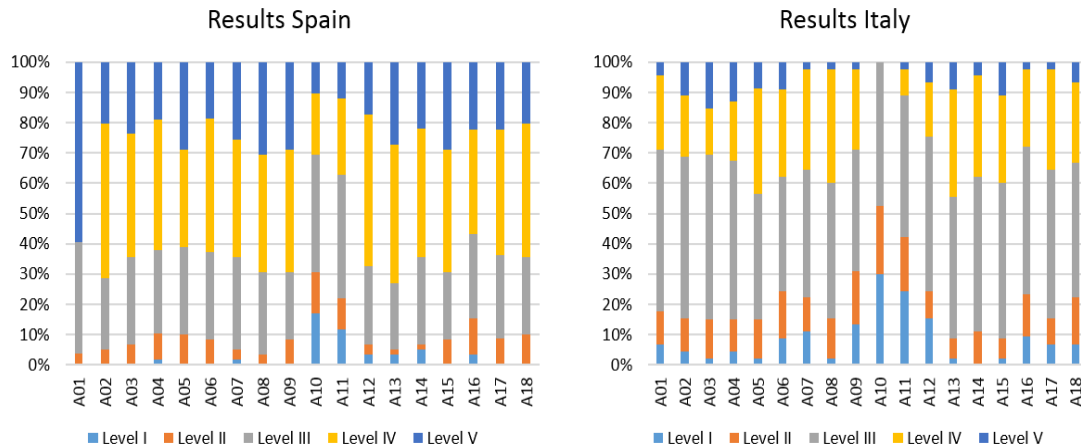
Figure 11.b. Results for Training planning and implementation (national)

- When comparing national results (Figure 11.b), important deviations are observed in many topics; the most significant being reflected in topic A01 (Analysis of the characteristics of the apprentices (needs, interests, expectations, previous knowledge). In general it seems that the perception of the Spanish respondents about their level of knowledge on certain topics is rather higher than the Italian's. However, most responses are included in levels III and IV in both countries.

Thematic area B – Evaluation of the learning process

Question 14. Please, evaluate to what extent you master the skills below:

In the following table the global results of the survey are shown:

EVALUATION OF THE LEARNING PROCESS

		Not familiar with it			Understand it but cannot implement			Understand it and might implement			Good knowledge and can implement			Deep knowledge and teaching skills on it (even to train others)		
		ES	IT	Total	ES	IT	Total	ES	IT	Total	ES	IT	Total	ES	IT	Total
B01	Implement the initial evaluation	0	1	1	3	7	10	19	22	41	23	12	35	14	3	17
B02	Establish the learning evaluation system	0	3	3	5	7	12	15	24	39	26	10	36	13	1	14
B03	Apply the appropriate evaluation tools in accordance with the training centre	0	4	4	3	5	8	19	24	43	24	11	35	13	2	15
B04	Design the evaluation tools	0	5	5	7	9	16	21	20	41	19	11	30	12	1	13
B05	Evaluate the learning results	0	0	0	0	4	4	16	24	40	23	12	35	18	5	23
B06	Participate in exams design and elaboration of certificates	1	3	4	4	13	17	21	16	37	19	12	31	14	2	16

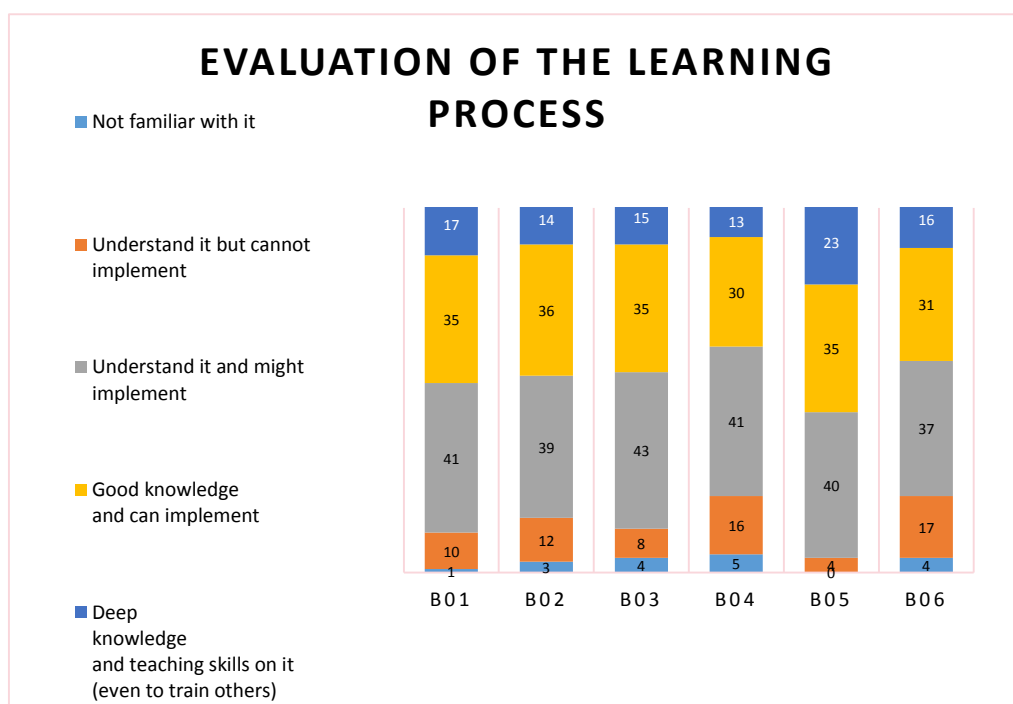*Table 3. Results for Evaluation of the learning process*

Figure 12.a. Results for Evaluation of the learning process (common)

Table 3 and Figure 12.a compile the results for thematic area B (Evaluation of the learning process) in terms of number of answers (commonly and individually) for each topic.

The analysis of the data shows the following:

- In global terms, it seems that there is a coherence among the level of knowledge of the different topics proposed, since most of them are located in Levels III (Understand it and might implement) and IV (Good knowledge and can implement).

- Topic B05 (Evaluation of the learning results) is the one which shows a higher number of respondents with a deep knowledge (Level V); furthermore, there is not any respondent who has indicated not to be familiar (Level I) with this topic.

- Regarding Design of the Evaluation tools (B04), it seems to be the topic which more respondents are not familiar with (5 individuals). However, when observing the national results, again they show divergences between Spain and Italy: for instance in this topic B04 all the respondents who have indicated level I (no familiar with) are from Italy.
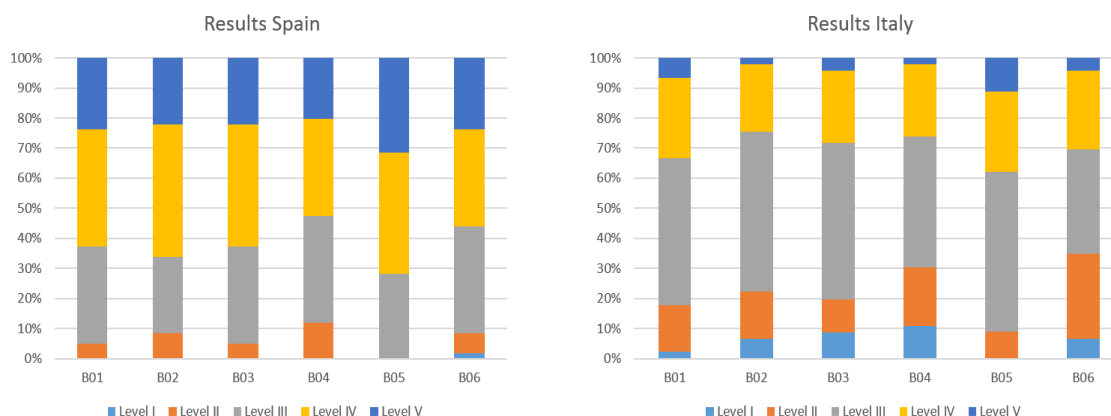
Figure 12.b. Results for Evaluation of the learning process (national)

- Similarly to the previous thematic area, when comparing national results (Figure 12.b), significant differences are observed. Even if most responses are included in levels III and IV (stressing level III for Italy and Level IV for Spain) in both countries, it seems that the perception of the Spanish tutors about their level of knowledge on the topics proposed is higher than the Italian tutors'. Regarding the number of respondents who are not familiar with certain topics, in the Spanish case only 1 participant has indicated not to be familiar with one topic (B06, Participate in exams design and elaboration of

certificates), whereas in the Italian case, several participants (a total of 16) have claimed not to be familiar with different topics (B01, B02, B03, B04, B06).

Thematic area C – Training innovation and improvement

Question 15. Please, evaluate to what extent you master the skills below

In the following table the global results of the survey are shown:

TRAINING INNOVATION AND IMPROVEMENT

		Not familiar with it			Understand it but cannot implement			Understand it and might implement			Good knowledge and can implement			Deep knowledge and teaching skills on it (even to train others)		
		ES	IT	Total	ES	IT	Total	ES	IT	Total	ES	IT	Total	ES	IT	Total
C01	Evaluate the professional work through the apprentices' self-evaluation and the evaluation of their satisfaction	1	3	4	7	8	15	21	24	45	19	9	28	11	2	13
C02	Participate in the processes of quality, innovation and continuous improvement of the organisation with a proactive attitude	2	3	5	6	9	15	19	20	39	23	12	35	9	2	11
C03	Propose, design and implement improvements in the apprenticeship programmes	1	3	4	8	11	19	15	22	37	24	7	31	11	3	14
C04	Update knowledge, participate in training actions (as student)	2	4	6	3	8	11	18	22	40	25	11	36	11	1	12
C05	Participate in networks to update/upgrade good practices	3	10	13	2	13	15	21	13	34	25	6	31	8	3	11
C06	Know and understand the expectations and needs of the construction sector	1	3	4	4	8	12	19	24	43	22	6	28	13	5	18
C07	Identify 'weak points' and propose actions for improve training	1	5	6	3	9	12	17	20	37	26	9	35	12	3	15
C08	Working in team, compare ideas and learning contents	0	2	2	1	7	8	17	21	38	23	12	35	18	3	21
C09	Training capability	0	1	1	0	6	6	14	20	34	23	16	39	22	3	25

Table 4. Results for Training innovation and improvement

TRAINING INNOVATION AND IMPROVEMENT

- Deep knowledge and teaching skills on it (even to train others)
- Good knowledge and can implement
- Understand it and might implement
- Understand it but cannot implement
- Not familiar with it

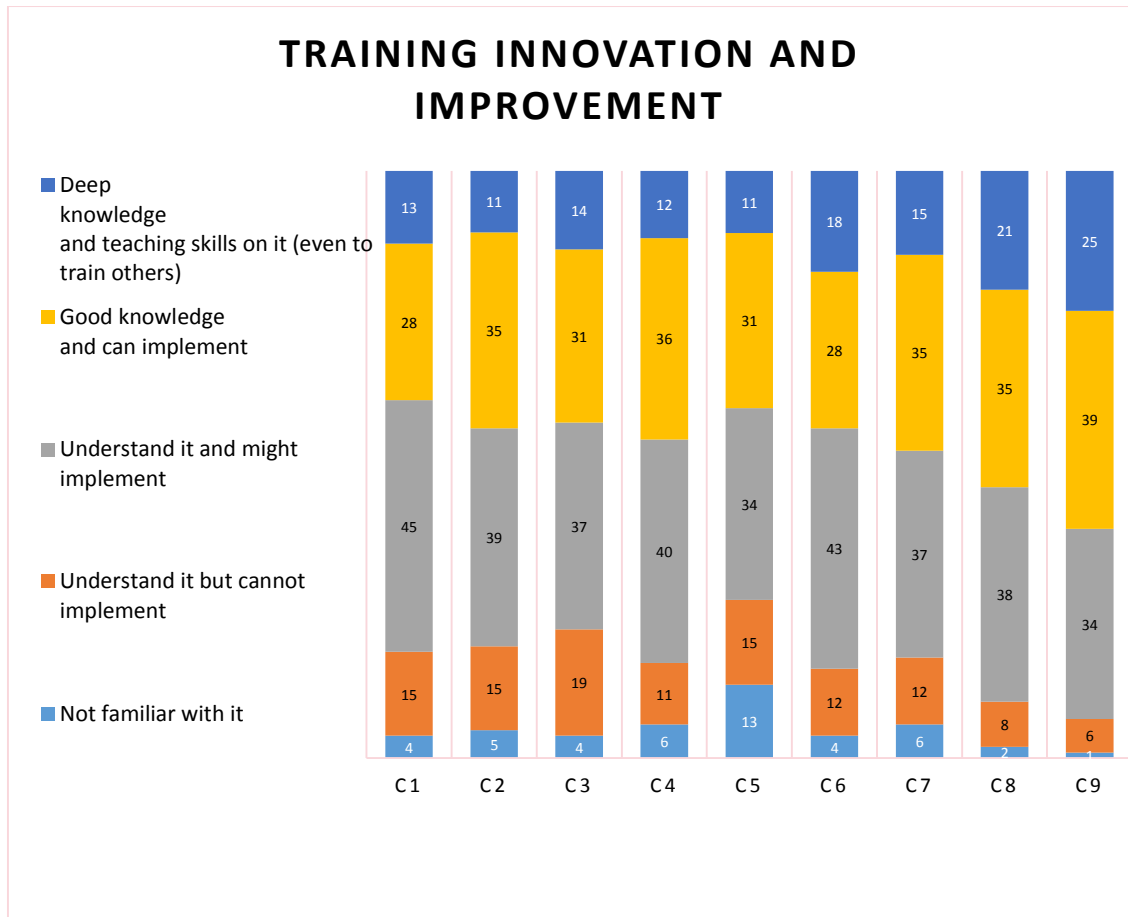|	C 1	C 2	C 3	C 4	C 5	C 6	C 7	C 8	C 9
Deep knowledge	13	11	14	12	11	18	15	21	25
Good knowledge	28	35	31	36	31	28	35	35	39
Understand/might	45	39	37	40	34	43	37	38	34
Understand/cannot	15	15	19	11	15	12	12	8	6
Not familiar	4	5	4	6	13	4	6	2	1

Figure 13.a. Results for Training innovation and improvement (common)

Table 4 and Figure 13.a compile the results for thematic area C (Training innovation and improvement) in terms of number of answers (total and per country) for each of the nine topics proposed).

The analysis of the data shows the following:

- Clearly, there is a slight majority of responses which have been included within level III (Understand and might implement), which means that even if the respondents have a certain level of knowledge about the topics proposed, this is not very high, from a general point of view.

- It is noticeable that topic C09 (Training capability) does not reach a higher number of responses in levels IV and V, considering that the respondents are tutors in charge of training the apprentices that come to the company to complement the training received in the training centre. Moreover, there is 1 participant who indicates that s/he is not familiar (Level I) with this topic, and 6 participants who claim that they understand it but cannot implement (level II). On the other hand, it is also necessary to stress that this

topic is the one which shows more responses within level V (concretely, 25 participants, which is 19% of the total of responses).

• Topic C05 (Participate in networks to update/upgrade good practices) is the one with participants with lowest level of knowledge (13 respondents are not familiar with it and 15 understand it but cannot implement it). It is also the topic with less responses for Level V (Deep knowledge).

• Also topic C03 (Propose, design and implement improvements in the apprenticeship programmes) seems to be one of the topics in which the participants are less skilled in: 16 understand it but cannot implement and 4 are not familiar with these aspects.
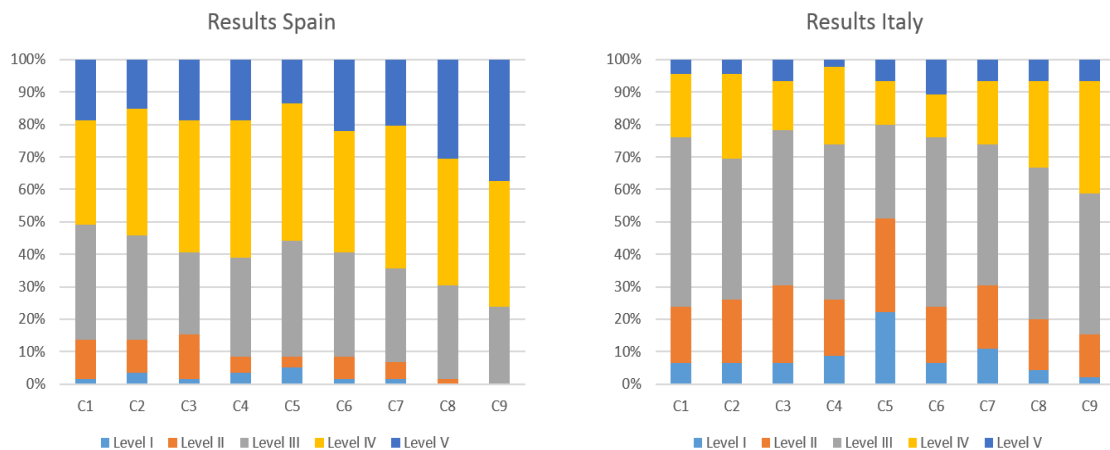
Figure 13.b. Results for Training innovation and improvement (common)

• If the data are analysed by country (Figure 13.b), it is noticeable that the Spanish participants have a perception indicating that their level of knowledge about the topics proposed is higher than in the case of the Italian tutors: both the number of responses within level V and level IV are higher. On the other hand, the Italian case shows a clear average on level III (Understand it and might implement).

Section III – Soft skills

Question 16. Please, evaluate to what extent you master the skills below:

In the following table the global results of the survey are shown:

SOFT SKILLS

		Not familiar with it			Understand it but cannot implement			Understand it and might Implement			Good knowledge and can implement			Deep knowledge and teaching skills on it (even to train others)		
		ES	IT	Total	ES	IT	Total	ES	IT	Total	ES	IT	Total	ES	IT	Total
D1	Organisation and planning	0	0	0	2	2	4	13	18	4	27	19	46	0	4	21
D2	Flexibility and adaptability	0	0	0	3	2	5	17	18	5	23	17	40	16	5	21
D3	Success orientation	1	2	3	3	4	7	17	19	7	27	15	42	11	3	14
D4	Identification with the organisation	1	1	2	1	1	2	17	14	2	25	20	45	15	7	22
D5	Conflict resolution	1	2	3	2	2	4	13	15	4	24	17	41	19	6	25
D6	Negotiation techniques	0	5	5	5	2	7	15	15	7	25	12	37	14	8	22
D7	Integration and globalisation	0	4	4	8	9	17	14	16	17	24	11	35	10	2	12
D8	Work under pressure	0	2	2	5	1	6	14	16	6	20	14	34	20	10	30
D9	Occupational health prevention	0	0	0	1	3	4	9	11	4	25	18	43	24	10	34
D10	Digital competence (ICT)	2	3	5	9	4	13	17	20	13	22	14	36	9	2	11
D11	Economic competence	1	2	3	4	6	10	17	15	10	28	16	44	9	4	13
D12	Problem solving	0	0	0	3	3	6	8	14	6	30	17	47	17	9	26
D13	Autonomy and personal lead	0	3	3	1	3	4	9	11	4	20	16	36	27	9	36
D14	Team-working	0	1	1	0	2	2	11	15	2	21	16	37	27	8	35
D15	Team building	1	2	3	0	4	4	9	17	4	20	11	31	29	8	37
D16	Effective presentation	0	2	2	3	3	6	13	21	6	27	12	39	16	3	19
D17	Management	1	1	2	1	5	6	17	11	6	24	18	42	14	7	21
D18	Mentoring/coaching	6	3	9	3	8	11	19	14	11	20	10	30	9	6	15
D19	Creativity	1	3	4	4	4	8	12	18	8	26	11	37	15	6	21
D20	Leadership	2	1	3	3	5	8	11	15	8	19	12	31	24	8	32
D21	Responsibility	0	0	0	1	3	4	8	10	4	20	18	38	29	11	40
D22	Dynamism	1	0	1	1	4	5	14	11	5	18	20	38	25	7	32
D23	Promoting apprentices' participation	0	0	0	1	4	5	12	18	5	24	14	38	22	6	28
D24	Positive attitudes	0	0	0	1	4	5	9	12	5	19	18	37	30	8	38
D25	Reinforce apprentices' work	0	0	0	0	4	4	11	17	4	26	16	42	22	4	26
D26	Efficient communication	0	1	1	0	3	3	12	15	3	26	16	42	20	7	27
D27	Listen carefully and actively	0	1	1	3	1	4	10	13	4	28	21	49	18	6	24
D28	Get apprentices involved in their own learning	1	1	2	1	2	3	8	16	3	30	17	47	19	6	25
D29	Teach transversal competences	3	0	3	2	5	7	13	15	7	24	16	40	17	6	23
D30	Patience and empathy, especially with young people	1	1	2	0	3	3	7	13	3	28	19	47	23	6	29
D31	Encourage participation of external professionals (to introduce objectives, explain methodologies, develop projects, do demonstrations, etc.)	3	4	7	0	4	4	10	14	4	31	16	47	15	4	19
D32	Languages	8	4	12	11	6	17	20	16	17	14	13	27	4	3	7

Table 5. Results for Soft Skills

SOFT SKILLS

Legend: ■ Level I ■ Level II ■ Level III ■ Level IV ■ Level V

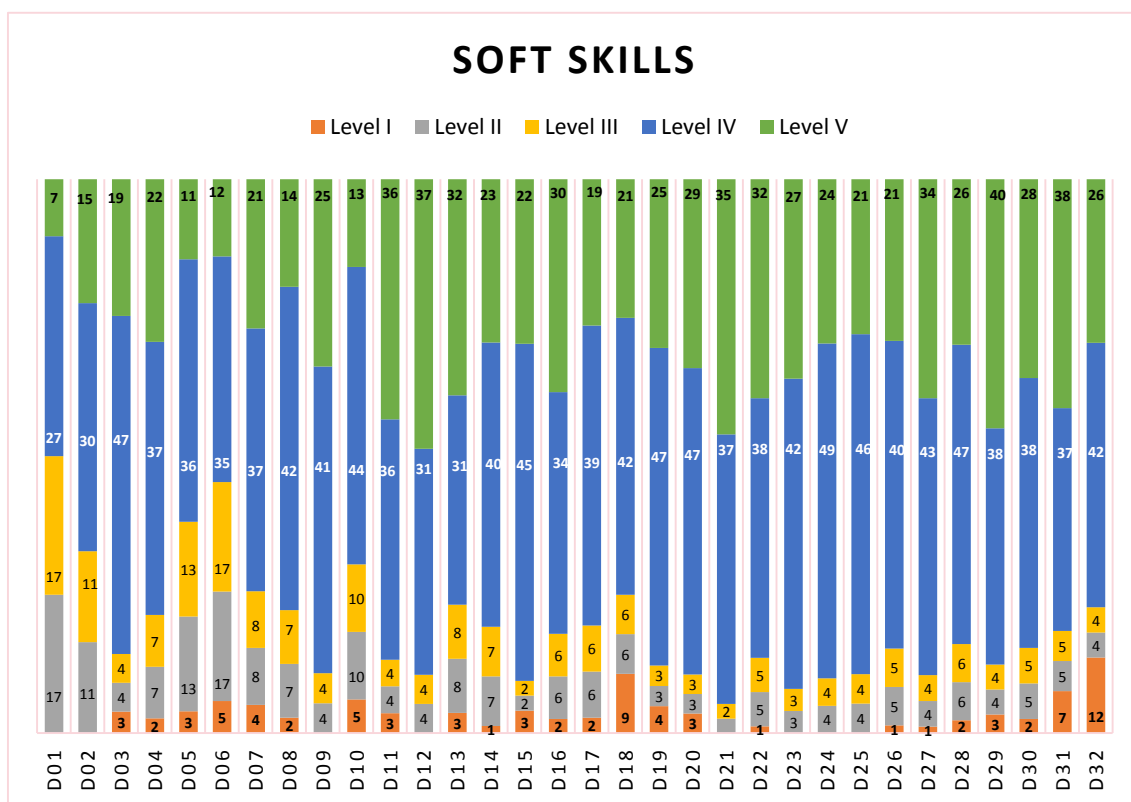| Topic	Level I	Level II	Level III	Level IV	Level V
D01		17	17	27	7
D02		11	11	30	15
D03	3	4	4	47	19
D04	2	7	7	37	22
D05	3	13	13	36	11
D06	5	17	17	35	12
D07	4	8	8	37	21
D08	2	7	7	42	14
D09		4	4	41	25
D10	5	10	10	44	13
D11	3	4	4	36	36
D12		4	4	31	37
D13	3	8	8	31	32
D14	1	7	7	40	23
D15	3	2	2	45	22
D16	2	6	6	34	30
D17	2	6	6	39	19
D18	9	6	6	42	21
D19	4	3	3	47	25
D20	3	3	3	47	29
D21		2		37	35
D22	1	5	5	38	32
D23	3	3		42	27
D24	4	4		49	24
D25	4	4		46	21
D26	1	5	5	40	21
D27	1	4	4	43	34
D28	2	6	6	47	26
D29	3	4	6	38	40
D30	2	4	5	38	28
D31	7	5	5	37	38
D32	12	4	4	42	26

Figure 14.a. Results for Soft Skills (common)

Table 5 and Figure 14.a compile the results for thematic area D (Soft Skills) in terms of number of answers (total and per country) for each of the 32 topics proposed.

The analysis of the data shows the following:

- The topic which shows a higher level of lack of knowledge is D32, corresponding to Languages; a total of 12 individuals have stated they are not familiar with it and 4 indicate that they understand but cannot implement.

- D32 is followed by topic D18 (Mentoring/coaching), with a total of 9 participants indicating that these aspects are not familiar to them, and 6 claim that they do understand it but cannot implement it.

- The third topic in terms of lack of knowledge is D31 (Encourage participation of external professionals), with 7 participants not being familiar with it and 5 who can understand it but cannot implement it.

- It is also noticeable the number of persons who claim that they understand but cannot implement topics D01 (Organisation and planning, 17 participants), D06 (Negotiation techniques, 17 participants) and D05 (Conflict resolution, 13 participants). Furthermore, in topics D06 and D05 there are also several participants who indicate they are not familiar with them (5 and 3 participants respectively).

- However, looking at Figure 14.a. it is clear that most tutors have a good knowledge of the soft skills proposed (the blue colour, indicating level IV, is the one predominating in the graph).

- Finally, a good number of participating tutors claim to have a deep knowledge about many skills (visually indicated with colour green in Figure 14.a.); responsibility (D21), positive attitudes (D24) and problem solving (D12) are the ones valued with the higher number of responses for Level V. On the other hand, the skill with less responses for Level V is Organisation and planning (D01).
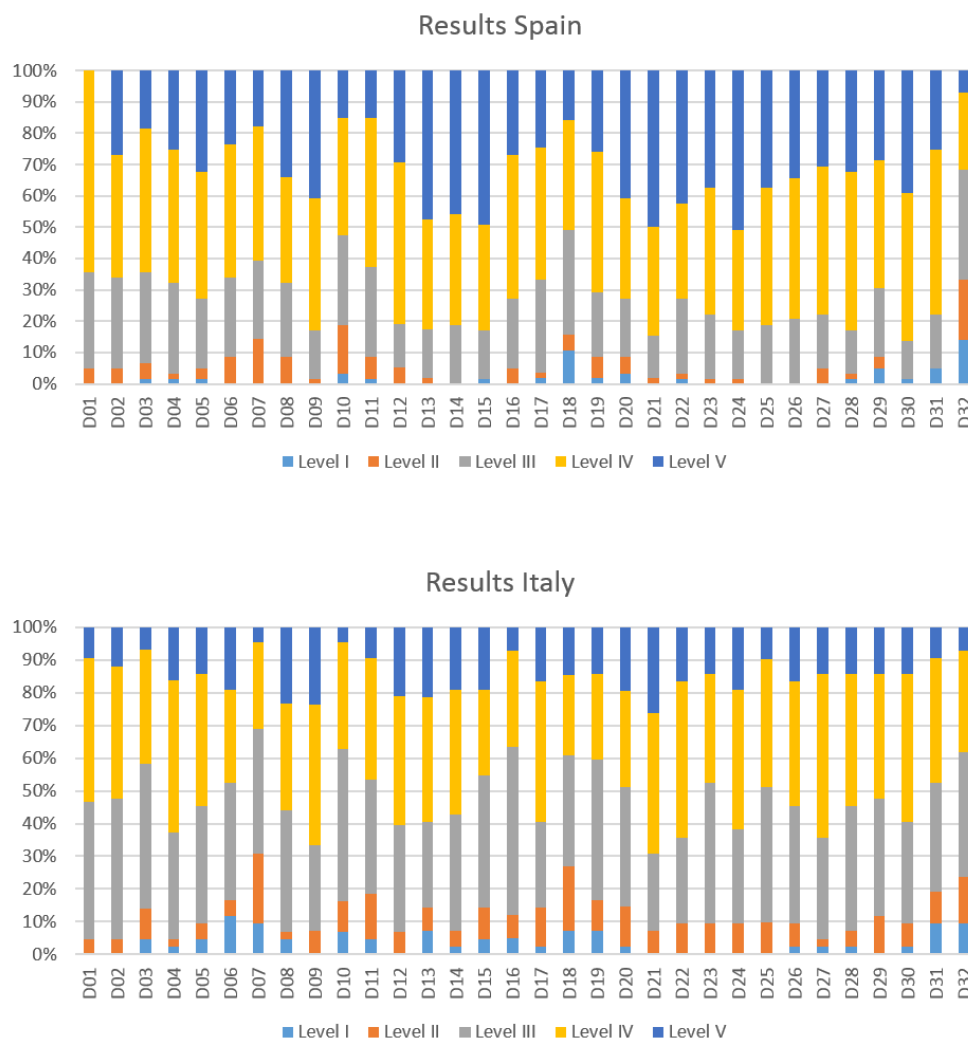

Figure 14.b. Results for Soft Skills (national)

- At the national level (Figure 14.b), some slight divergences may be observed: as in other thematic areas, there seems to be a higher perception by Spanish tutors about their level of mastering skills. When comparing the graph with results in Spain and in Italy, it is clear that more Spanish tutors have included their responses in Level V compared to Italians (the number of responses are clearly shown in blue colour).

- In Italy the Level III (Understand and might implement) is the dominant one, whereas in Spain, the dominant level is IV (Good knowledge and can implement), which correspond to the predominant level in the common results (Figure 14.a). This makes not possible to get a clear average level for both countries regarding soft skills. Actually, this feature is also observed in other thematic areas.

As a general conclusion extracted from the surveys, it can be said that there is a clear lack of correspondence between the perception of Spanish and Italian tutors about their level of knowledge on the skills proposed. In the Spanish case, the tutors seem to consider themselves highly skilled, having an average of good knowledge (Level IV) about them and level of implementation. On the contrary, the average level in Italian tutors is III (Understand and might implement).

In this context, the average result is not of use; thus, the theoretical assumption for the project is that Level III means that tutors understand skills and might probably implement them, but a certain complementary training would be needed in order to allow them to become highly skilled tutors. Therefore, it is understood that even if they have some prior knowledge and even certain level of previous experience with some skills, they need training to be able to completely and correctly implement them.

The result from this theoretical assumption is captured in the Qualification Perimeter developed in the Co.Tutor project (D6).

INTERVIEWS

Description

A total of 12 personal semi-structured interviews have been conducted, 6 in Italy and 6 in Spain. The respondents have been tutors or in-company tutors, especially from the construction industry.

The aim of this interview has been to identify which are the main skills and competences that a worker performing the role of in-company tutor must own, in order to get information to design a proposal for a new professional qualification for the in-company tutors in the European construction industry.

It has been assumed that the "in-company tutor" is the central axis of the practical part in a training process, since s/he acts a mediator between the company and the training centre, and is the person who accompanies the apprentice in everything related to her/his integration within the company where s/he is performing the practical training. Thus, the in-company tutor is the person dealing with the apprentice's needs in a personalised way, helps her/him to learn and achieve a series of competences and skills. For this, there are a series of competences that the in-company tutor should have a good command of (besides the technical ones). The interview intended to get relevant information about those knowledge, skills and competences necessary for the in-company tutor to perform her/his role in and functions in an optimal manner.

The interview has been structured in three sections:

- Profile of respondents.
- Open questions about the role of the in-company tutor.
- Closed questions about the relevance of the pedagogical and soft skills proposed for the in-company tutor.

In order to facilitate the completion especially of the closed questions, it was possible to complete it online. This has allowed to get highly comparable results. In the case of the closed questions, a summary including the main features extracted from interviews are presented in the current document. In order to facilitate the compilation and treatment of information, the questions have been included in Survey Monkey.

Although they have been personal interviews, no personal data have been required, in order to ensure privacy of the respondents.

Interview results

In-company tutor profile

Question 1. Country

A total of 12 semi-structured interviews have been conducted, 6 in Italy and 6 in Spain.
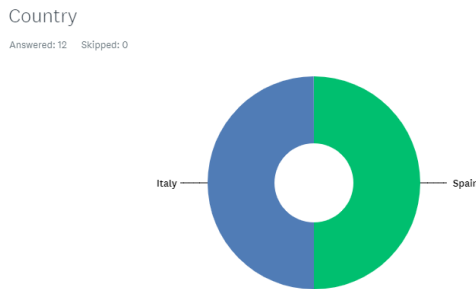

Figure 15. Country

Question 2. Age

Most respondents are between 40-49 years old (66.6%), as seen in the figure below: 33.3% are in the range from 30-39 years old and 33.3% are in the range of age between 40-49 years old.
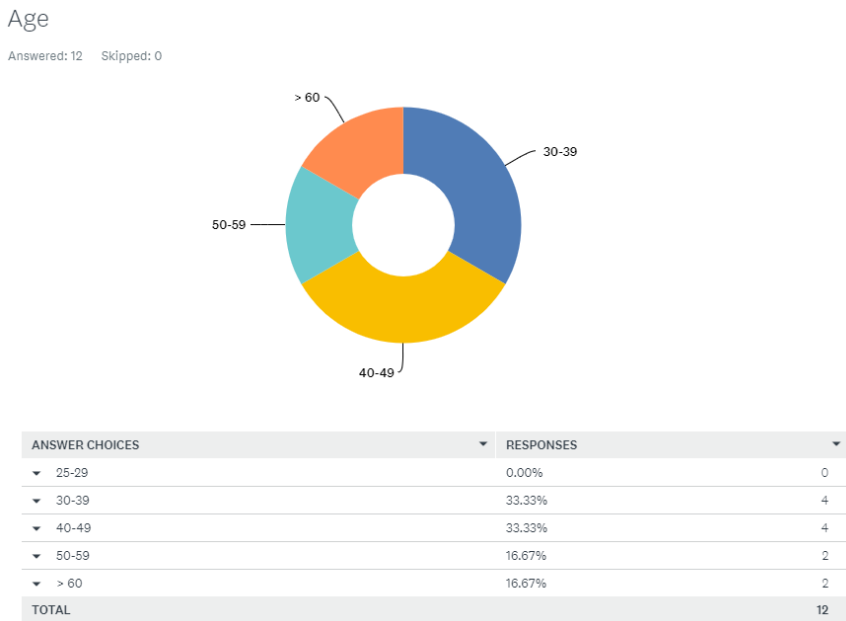

ANSWER CHOICES	RESPONSES	
25-29	0.00%	0
30-39	33.33%	4
40-49	33.33%	4
50-59	16.67%	2
> 60	16.67%	2
TOTAL		12

Figure 16. Age

Question 3. Gender

Following the trend of the surveys data previously analysed, also the majority of interviewed persons were men (83.3%) versus 16.6% of women.
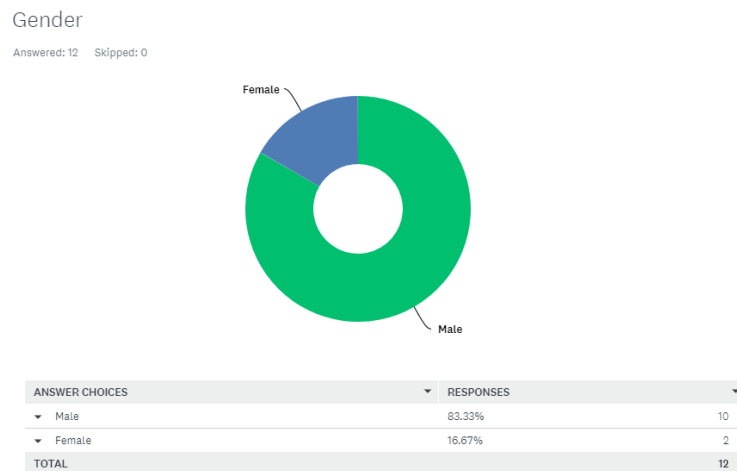

Figure 17. Gender

Question 4. Highest level of studies completed

10 out of 12 respondents have reached a university level, which is 83.3% of the total.
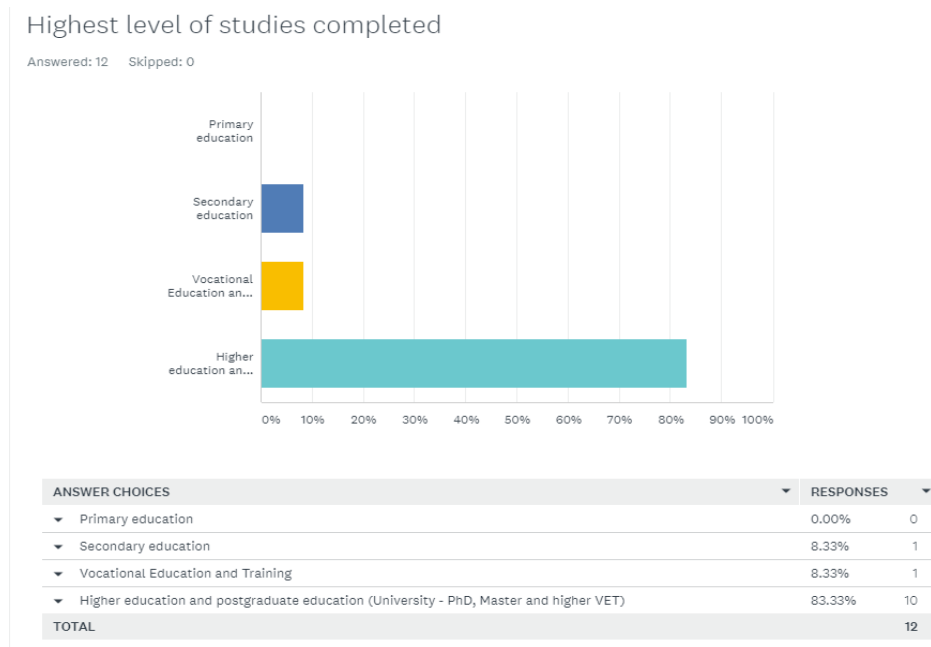

Figure 18. Educational level

Question 5. Years of experience in the construction sector

There is a balance between those tutors who have been working in the construction industry for more than 15 years and those who have an experience lower than 5 years.
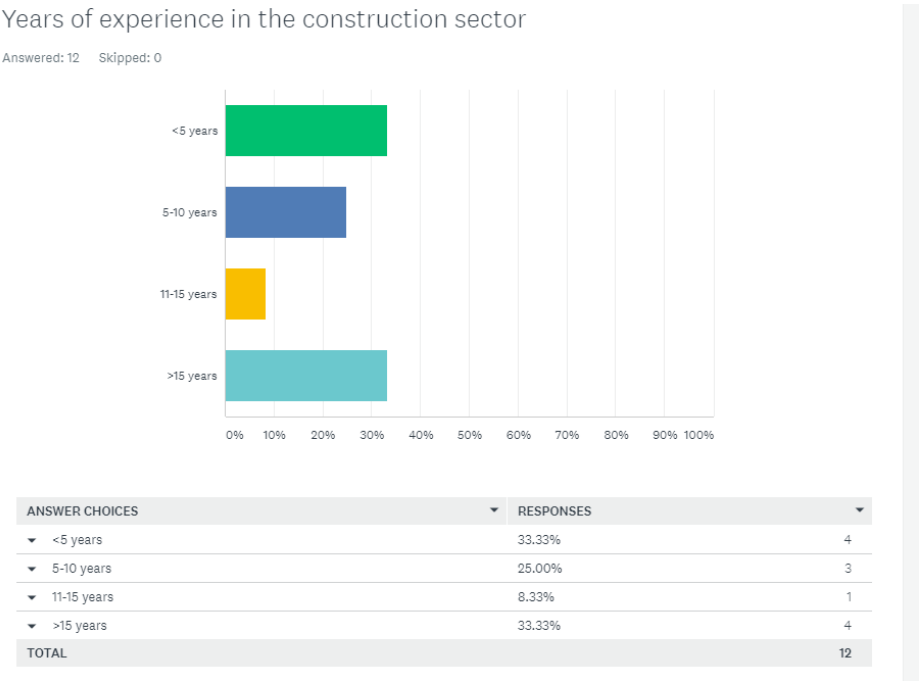
Years of experience in the construction sector

Answered: 12   Skipped: 0

ANSWER CHOICES	RESPONSES	
<5 years	33.33%	4
5-10 years	25.00%	3
11-15 years	8.33%	1
>15 years	33.33%	4
TOTAL		12

Figure 19. Experience in the construction industry

IN COMPANY TUTOR PROFILE IN THE BUILDING INDUSTRY – INTERVIEW-	
Age	30-49
Gender	Male
Level of studies	University
Years of experience in the construction industry	< 5 years >15 years

Table 6. Profile of interviewees

Open questions

Question 6. Are you familiar with the concept and the role of the "in-company tutor"? Is it a recognisable and identifiable role in the SMEs in your country?

> In general, the concept of in-company tutor is quite known by the interviewees, only a couple of them indicate that they are not familiar with it. Also, it has been indicated that most SMEs are still not aware of the benefits of introducing this role in the companies.

Question 7. How are practices managed? Who acts as intermediary between the company and the training centre?

> In Spain, usually the person who will act as a company tutor will be the intermediary person between the company and the training centre; many times, also the HR manager will act as an intermediary, or even the owner of the company (especially in smaller ones) who will afterwards also act as a tutor in many occasions. For the management of the practice period, a collaboration agreement must be signed.

> In Italy, for the majority of those interviewed, the one who acts as an intermediary between the company and the training centre is mainly a joint territorial institution, followed by job consultants, site technicians and finally the owner and/or foreman.

Question 8. How is the in-company tutor selected? Is s/he informed about the role s/he is going to play? Does s/he receive information about practices to be performed and apprentices that will be received?

> In Spain, it is common that in the smaller companies it is the owner the one who usually takes the role of the tutor. In general, the tutor is selected among the company staff, among those most experienced: project manager or responsible of area, or in any case someone who is strongly familiar with the company policy in different aspects (quality, HR, environment, etc.).

> Regarding information about the role they are going to play, they do not receive much, in general, although in some companies they have information about the courses and the training programme that the apprentices are receiving. Usually, there is no information about the students; however, some companies require the student's CV, in order to know her/his training background.

> In Italy, the company tutor is selected according to the multidisciplinary professional experience acquired within the company and to the technical skills that the apprentice must achieve. In many cases, workers playing the role of company tutors will receive some related training.

In Italian companies it is necessary that the tutor has information about the training programme delivered in the training centre, as well as the knowledge of the apprentice's background but it is not necessary to know how to plan training; what is important is to manage the tools with which they will carry out a monitoring of the experience and evaluate it.

Question 9. Does s/he need to have a specific qualification to act as such? Or is it only professional/technical experience needed?

Both in Italy and in Spain, the most important is to have relevant experience in the sector and the company. In some cases, to be selected as a tutor, s/he will be required to have a high educational level (university), but it is not the common circumstance in the majority of the companies.

Question 10. To what extent do you think that the in-company tutor must be familiar with the following aspects and concepts: *National VET system and structure; Professional Qualification; Dual system training/alternace training/professional practices; Knowledge, skills and competences; Learning Outcomes*.

Regarding this question, it seems that the persons interviewed have somehow confusing ideas about these concepts; in general, their answers lead to the assumption that they really do not understand theoretically these concepts.

In fact, some of them indicate that there should be specific training addressed to tutors, to allow them to have a clearer idea of their tasks and functions. However, the majority think that all knowledge they could acquire would improve their performance.

Question 11. Do you think that it is necessary that s/he knows about design, development and evaluation of training actions?

There is not a consensus regarding this aspect; while some tutors believe that it is necessary to have knowledge about these issues, there are others (especially in Spain) who indicate that it would be essential if the contents are theoretical, but not if they are practical. The most important thing is that practices are in line with the theoretical training delivered in the training centre, avoiding any contradiction that could arise.

However, being at least familiar with these topics is always an added value, since this could allow the tutor to focus on what is more convenient for the student.

Question 12. To what extent is it necessary to know the training programme of the training centre to support the apprentice?

A large majority of the persons interviewed (both in Italy and in Spain) consider that it is essential to be familiar with the training programme that the student is receiving in the training centre. This helps the tutor to know the maximum level that the student should reach. On the contrary, not having knowledge about this training programme could lead the student to end up performing activities that are not in line with the training contents and this could, in turn, lead to high demotivation.

However, one of the tutor interviewed focus the responsibility on the apprentice: s/he should be able to integrate the knowledge acquired in the training centre into the practice in the working centre.

Another tutor proposes that the tutor from the training centre should pay a visit to the company to check if the practice is being performed according to the training programme and if the apprentice is doing well.

Question 13. Is it necessary to know the apprentice's background (prior knowledge, skills, personality, needs…)?

> There is a clear consensus about the necessity to have some knowledge about the apprentice's background, at least some basic information. In fact, in some companies the student is required to provide her/his CV in order to offer information about the prior knowledge (specific and general), if s/he is able to deal with ICT, etc., and helps the person responsible of the student to put him/her in the most suitable job-post, and with the most suitable co-workers.

Skills

Question 14. Next, you will find a list of pedagogical and soft skills; please rate them according to your consideration about their relevance and need for the performance of the in-company tutor:

The results for this question are presented in the tables and figures below.

PEDAGOGICAL SKILLS

		Not relevant or necessary at all	Recommended, but not essential	Quite important and necessary	Absolutely necessary
01	Formulate and adapt the training objectives to the apprentice	0	1	**8**	3
02	Select and sequence training contents	1	3	**7**	1
03	Design and organise activities and methodologies related to the objectives and contents, considering the apprentices' characteristics	0	2	**7**	3
04	Select, elaborate and prepare training material	1	6	3	2
05	Adaptation to the training curriculum of the vet centre	1	6	3	2
06	Searching information relevant for the training process	1	6	4	1
07	Information about national qualification framework & EQF	0	10	2	0
08	VET system structure and functioning	0	8	4	0
09	Understanding learning outcomes approach	0	1	**10**	1
10	Use training tools available in line with the trainees' needs	0	2	**8**	2
11	Use of specific tutoring strategies	1	3	**6**	2
12	Diversify learning methods and techniques	2	5	2	3
13	Implement the initial evaluation	0	4	4	4
14	Establish the learning evaluation system	0	4	5	3
15	Design and apply the appropriate evaluation tools	1	4	4	2
16	Participate in exams design and elaboration of certificates	3	6	2	1
17	Evaluate owns performance through the apprentices' self-evaluation and the evaluation of their satisfaction	1	4	**6**	1
18	Participate in the processes of quality, innovation and continuous improvement of the organisation	0	3	**8**	1
19	Propose, design and implement improvements in the apprenticeship programmes	1	1	**7**	3
20	Update knowledge, participate in training actions (as student)	0	3	4	**5**
21	Participate in networks to update/upgrade good practices	1	2	**7**	2
22	Know and understand the expectations and needs of the construction sector	0	0	**7**	4
23	Working in team, compare ideas and learning contents	0	0	**6**	6
24	Training capability	0	0	4	**8**

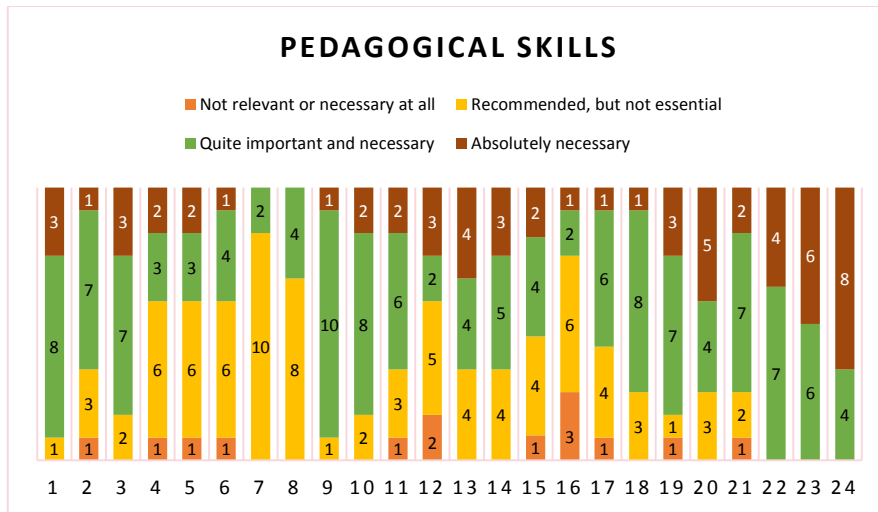*Table 7. Interview results for Pedagogical Skills*

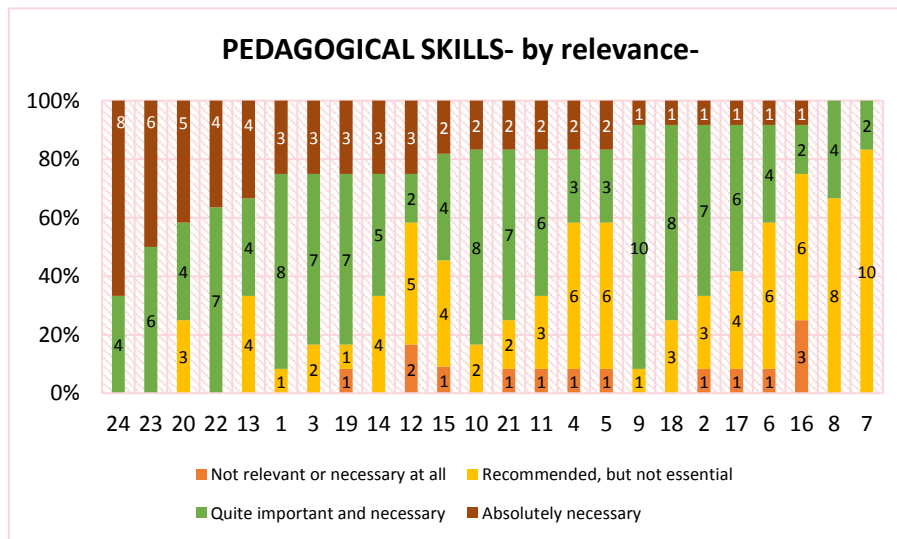*Figure 20.a. Interview responses on pedagogical skills*

Figure 20.b. Interview responses on pedagogical skills sorted by relevance

Table 7 and Figure 20.a compile the results for Pedagogical Skills in terms of total number of answers for each of the 24 items proposed. Figure 20.b shows the results sorted by relevance, from 'Absolutely necessary' to 'Not relevant or necessary at all'.

The analysis of the data shows the following:

- Clearly, the pedagogical skill that has been considered as most relevant by participants is Training capability (Skill 24); 8 (66.6%) participants consider it as absolutely necessary and 4 (33.3%) consider it as quite important and necessary, therefore reaching the 100% of participants.

- The next pedagogical skill in terms of relevance is Working in team, compare ideas and learning contents (Skill 23); again the 100% of the tutors consider this skill as absolutely necessary (50%) or quite important and necessary (50%). No other options have been marked for this item.

- Skill 22 (Know and understand the expectations and needs of the construction sector) is also one of the most relevant, according to the results: 4 (36.3%) tutors consider it absolutely necessary and 7 (63.6%) believe it is quite important and necessary.

- Other skills that have been considered of high relevance are: Understanding learning outcomes approach (Skill 9), Use training tools available in line with the trainees' needs (Skill 10), Participate in the processes of quality, innovation and continuous improvement of the organisation (Skill 18), Design and organise activities and methodologies related to the objectives and contents, considering the apprentices' characteristics (Skill 3). All these are considered by most respondents to be of high relevance, but it is noticeable that a few of them have considered them only as recommendable, but not essential.

- The skill that has been considered as less relevant is no. 16 (Participate in exams design and elaboration of certificates), consider as no relevant at all by 3 participants and as recommended but not essential by 6 (which together represents 75% of the total).

- Skills 7 (Information about national qualification framework & EQF) and 8 (VET system structure and functioning) are not considered as relevant by most of the tutors, who consider them mainly as recommended, but not essential.

Next, the results from the contribution in interviews about the relevance of soft skills are shown. Table 8 and Figure 21.a compile the results for Soft Skills in terms of total number of answers for each of the 32 items proposed. Figure 21.b shows the results sorted by most to least relevant.

SOFT SKILLS

|		Not relevant or necessary at all	Recommended, but not essential	Quite important and necessary	Absolutely necessary
01	Organisation and planning	0	2	3	**6**
02	Flexibility and adaptability	0	2	4	**6**
03	Success orientation	0	6	4	2
04	Identification with the organisation	0	5	4	2
05	Conflict resolution	0	4	3	5
06	Negotiation techniques	0	3	**7**	2
07	Integration and globalisation	1	8	1	2
08	Work under pressure	0	3	**7**	2
09	Occupational health prevention	0	3	4	5
10	Digital competence (ICT)	0	4	5	3
11	Economic competence	0	7	4	1
12	Problem solving	0	1	**6**	5
13	Autonomy and personal lead	0	3	4	5
14	Team-working	0	2	2	**8**
15	Team building	0	4	3	5
16	Effective presentation	0	7	4	1
17	Management	0	1	**6**	5
18	Mentoring/coaching	0	2	**8**	2
19	Creativity	1	3	**6**	2
20	Leadership	1	1	**8**	2
21	Responsibility	0	1	4	**7**
22	Dynamism	0	5	4	3
23	Promoting apprentices' participation	0	2	6	4
24	Positive attitudes	0	2	4	**6**
25	Reinforce apprentices' work	0	2	6	4
26	Efficient communication	0	0	**6**	**6**
27	Listen carefully and actively	0	1	**8**	3
28	Get apprentices involved in their own learning	0	1	**6**	5
29	Teach transversal competences	0	1	**7**	4
30	Patience and empathy, especially with young people	0	2	**7**	3
31	Encourage participation of external professionals (to introduce objectives, explain methodologies, develop projects, do demonstrations, etc.)	0	5	5	2
32	Languages	0	6	4	1

Table 9. Interview results for Soft Skills
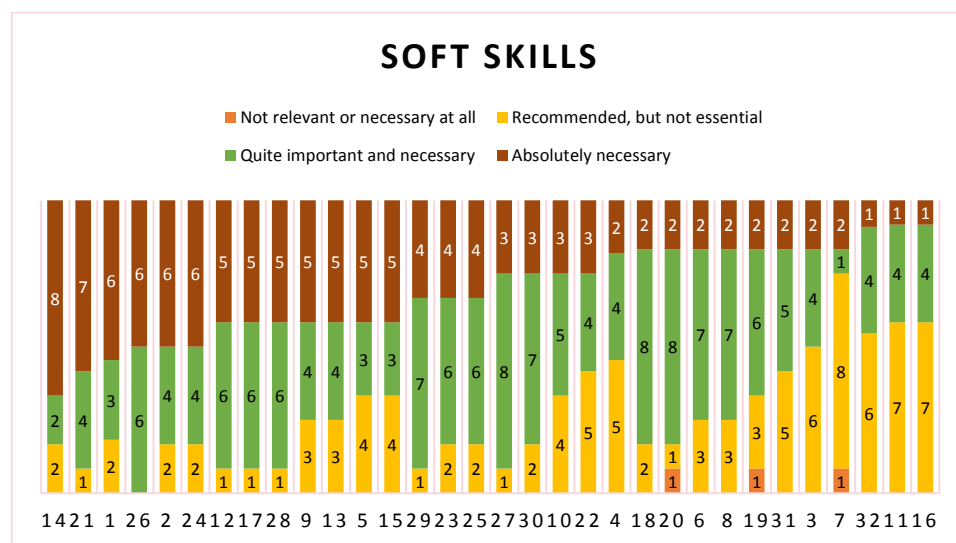
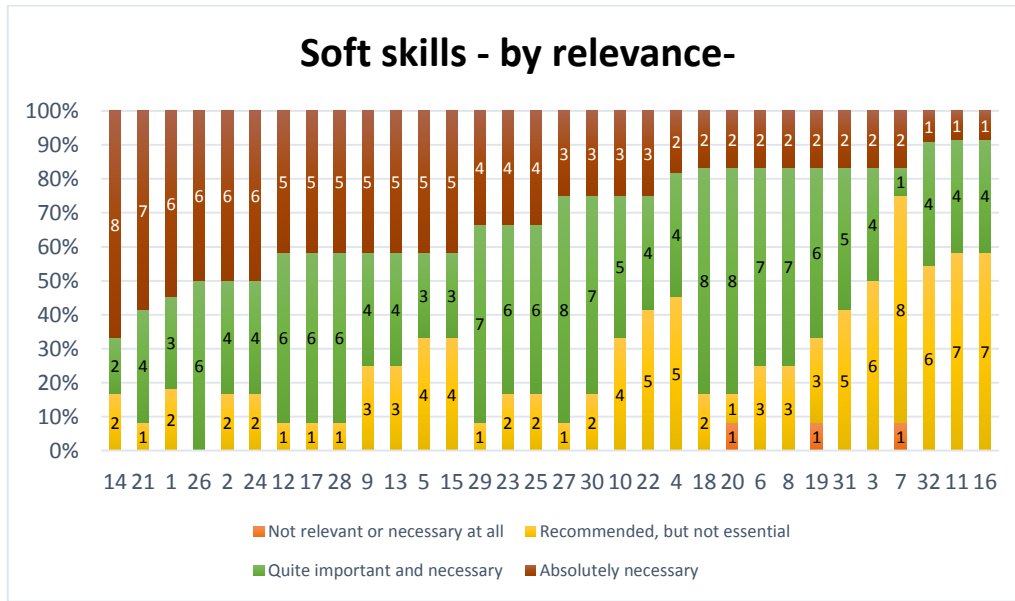*Figure 21.a. Interview responses on soft skills*

Figure 21.b. Interview responses on soft skills sorted by relevance

- The analysis of the data shows that the number of skills that have been considered as not relevant is almost insignificant, as it is shown in Figure 21.b (only skills 7, 18 and 19, and only 1 participant each).

- Just looking at figure 21.b it seems clear that most of the soft skills proposed in the interview are considered as absolutely necessary (brown colour) or quite important and necessary (green colour). The skill that has reached the highest number of responses located in the level of 'Absolutely necessary' is Team-working (Skill 14), followed by Responsibility (Skill 21) and Efficient communication (skill 26).

- Several skills have got the same consideration: both skill 2 (Flexibility and adaptability) and skill 24 (Positive attitudes) have been considered as absolutely necessary by 6 participants, quite important and necessary by 4, and recommended but not essential by 2 respondents. The same happens with the following groups of skills: 12-17-28, 9-13, 5-15, 23-25.

- Regarding the consideration of 'Recommended but not essential' they are skills 7 (Integration and globalisation), 11 (Economic competence), 16 (Effective presentation), 32 (Languages) and 3 (Success orientation) the ones which have more responses for this category.

GENERAL CONCLUSIONS

After finalising both the documentary analysis and the experimental analysis, the following general conclusions may be presented:

Both in Spain and Italy the apprenticeship systems are being more and more implemented; however, the level of implementation is still below average of other EU countries.

There is still a high number of companies that are not aware of the benefits that may derive from their participation on apprenticeship programmes.

The role of the in-company tutor is essential and his/her performance will have a huge influence in the success or failure of the apprenticeship programmes. However, in both countries her/his professional qualification is not standardised.

Even having this lack of recognition about in-company tutor's qualification, there are training actions in both countries, aiming at supporting the companies and the tutors in carrying out a proper performance and a good implementation of the apprenticeship programmes.

The general profile of the workers who perform the role of in-company tutor in the construction industry present the following features:

- Man,
- between 40-50 years of age,
- high educational level,
- wide experience in the company and also relevant experience as company tutor,
- managerial occupation, responsibility within the company, director/owner (especially in the smaller companies)
- recognised as in-company tutor in the company, but not officially recognised outside it,
- good knowledge about her/his functions as in-company tutor,
- knowledge about the VET system in the country

In both countries it is common that the in-company tutors are not very aware of the design of training contents. Even, in many companies (especially in Spain), tutors are not very familiar with the profile of the apprentice or with the training programme s/he is receiving in the training centre. However, they believe that this knowledge would be of high significance to carry out a good work with the apprentices. On the contrary, it seems that they are familiar with the evaluation tools they need to carry out a monitoring of the apprenticeship experience.

For what has been derived from interviews and surveys, it seems that there is not much personal contact between the training centre and the company; this is something that should be avoided in order to ensure an optimum implementation of the programme.

Regarding the skills that have been considered as more relevant for the in-company tutor, they are the following:

- Training capability,
- Working in team,
- Responsibility,
- Efficient communication,
- Flexibility and adaptability,
- Positive attitude,
- Know and understand the expectations and needs of the construction sector,
- Understanding learning outcomes approach,
- Use training tools available in line with the trainees' needs,
- Participate in the processes of quality, innovation and continuous improvement of the organisation,
- Design and organise activities and methodologies related to the objectives and contents, considering the apprentices' characteristics.

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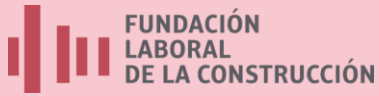
Fundación Laboral de la Construcción
España

Socios del proyecto:

Confederación Nacional de la Construcción
España

Associazione Nazionale de Costruttori Edili
(Ance). Italia

Ente per la Formazione e l'addestramento
professionale nell'edilizia (Formedil).
Italia