# The e-DELPHI Method to Test the Importance Competence and Skills: Case of the Lifelong Learning Spanish Trainers

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Abstract—The lifelong learning is a crucial element in the modernization of European education and training systems. The most important actors in the development process of the lifelong learning are the trainers, whose professional characteristics need new competences and skills in the current labour market. The main objective of this paper is to establish an importance ranking of the new competences, capabilities and skills that the lifelong learning Spanish trainers must possess nowadays. A wide study of secondary sources has allowed the design of a questionnaire that organizes the trainer's skills and competences. The e-Delphi method is used for realizing a creative, individual and anonymous evaluation by experts on the importance ranking that presents the criteria, sub-criteria and indicators of the e-Delphi questionnaire. Twenty Spanish experts in the lifelong learning have participated in two rounds of the e-DELPHI method. In the first round, the analysis of the experts' evaluation has allowed to establish the ranking of the most importance criteria, sub-criteria and indicators and to eliminate the least valued. The minimum level necessary to reach the consensus among experts has been achieved in the second round.

*Keywords*—competences and skills, lifelong learning trainers, Spain, e-DELHI method.

#### I. INTRODUCTION

**E**DUCATION and training are crucial for economic and social changes. There have been produced important changes in the education matter in the last decade that have reinforced the idea that the lifelong learning constitutes one of the principal axes of the common politics of the European Union (EU). One of the more transcendental and important actors of the lifelong learning that assures the given quality of the training are the teachers and trainers. Now is vital for the European Union to have well-trained teachers in lifelong learning environments, who are able to implement changes from the old to the new paradigms of learning, much more centered on learning than on teaching. In this sense, supported by the Bologna process, European member states established frameworks of national standards for lifelong learning teachers and trainers, dealing for the basic skills and competence such as curriculum development, tutorial support, skills assessment, management of learning environments and teachers' continuing professional development. Several trends suggest that training in companies and institutional contexts is changing, resulting in new competence requirements for trainers both in terms of their basic qualification that lead becoming a training practitioner in the first place as well as in terms of trainers' continuing professional development [7]-[8].

Spain, as the other European countries, has a positive attitude towards the introduction of systems and methodologies to validate informal and non formal learning.

During the past years, Spain has given impulse to initiatives that seek the recognition or even the validation of informal and non-formal learning and the professional figure of the lifelong learning trainers.

The main objectives of this paper are identification of the new trainer's skills and competences and submit their importance to the judgment of some experts in the matter. Two round e-Delphi method is applied to support better the objective. The e-Delphi method needs a combination between the literature review analysis and the evaluation of the expert's participation. The literature review analysis has served to identify the criteria, sub-criteria and indicators that describe the trainer's skill and competences. This work has allowed to develop a questionnaire that summarizes a wide range of competence and skills relating to the Spanish trainers. e-Delphi method is the tool by means the questionnaire was distributed among twenty national experts in permanent learning (informal and non-formal) and to carry out the evaluation of the competence and skills importance. The structure of this paper is as follows. Section 2 deals with the literature review. Section 3 show methodological framework and data; section 4 addresses the results and conclusions will be the subject of section 5.

#### II. PROBLEM STATEMENT AND LITERATURE REVIEW

#### A. Common principles about competences and skills

During the last decade, the issue of competence has been received with enthusiasm as well critical concept among researchers and practitioners. From the relevant literature, the

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term competence has been subjected to multiple interpretations.

There are a variety of perspectives about the origin of competences or/and competency, with backgrounds in diverse areas such as linguistics, cognitive psychology, business organization, management development and education [12], [13]-[17]. Hence the competence and competency<sup>2</sup> terms are used in various ways [15]. Every competence definition is different and historically has been associated with knowledge, skills, experience and attributes necessary to carry out a defined function effectively. Spencer and Spencer [19] considered that the competence is a group of personal characteristics that can lead to efficiency or excellent performance. According to Bunk [15] competence is the combination of knowledge, ability, attitude and many other factors possessed by an individual. Since Eraut [20] defines the competency as: "...a competency is more than just knowledge and skill. It involves the ability to meet complex demands, by drawing on and mobilising psychosocial resources (including skills and attitudes) in a particular context". The main drawback in this work is to unify the variety of the competence denomination (competence, competency, basic and/or generic skills are some examples) and to adapt the nuance among its significance in this framework.

The latest approach to the competence theory regards this one as an ideal of education and an analytical category admitting that "competence is an individual combination of abilities and experience". Thus the structure of competence is formed by experience that includes knowledge, skills and attitude and abilities, which determine an individual's readiness for activity. Parts of studies in competence theory reveal various approaches to competence classifications stressing the most important competences essential both in successful professional activity and in personal life. UNESCO [24] defines three categories of competences in lifelong learning frame: 1) an ability to operate in socially heterogeneous groups, 2) an ability to act autonomously and 3) an ability to use tools interactively. An European Reference Framework [10]-[11], on the key competences for lifelong learning stresses eight key competences: 1) communication in mother tongue; 2) communication in foreign languages; 3) mathematical competence 4) basic competences in science and technology; 5) digital competence; 6) learning-to-learn; 7) interpersonal, intercultural, social competences and civic competence; 8) entrepreneurship and cultural expression.

The competences are also used as basis to establish a

certain level of qualification. When a person has developed all the competences necessary for a certain job, he or she gets a qualification. In this case the term qualification means a formal expression of the vocational or professional abilities of a worker which are recognized at international, national or sectoral levels and is recognized by a certificate system. From this viewpoint, competences and competency are both the basic and specifics characteristics of the employees and the principal reasons to achieve an excellent performance.

The authors will use the term "competence (s)" as the concept that includes and defines a set of features professional's competences/skills and personals behaviors/attitude/aptitude) necessary to occupy a workstation and to develop of the work effectively, with the purpose to unify the terms on competence and competency.

B. Competence, skills and qualifications in the Spanish context

During the past years, Spain has given impulse to initiatives which seek the recognition or even the validation of informal and non-formal learning. The inclusion of the social actors in the public initiatives, which is an automatic practice at present, either fixed by law, as in the case of the Law on Qualifications and Vocational Training, or by Convention, such as the Tripartite Agreements for Continuing Training, is very positive, as it guarantees a social acceptance of this initiatives, which will also be more likely to be closer to the employment market. In Spain a basic law on qualifications is developed and the National Catalogue of Occupational Qualifications outlines occupational profiles grouped into professional families and assigned to levels 1 to 5. According to Article 4 of the Royal Decree [22], which regulates the National Catalogue, the levels of occupational qualifications are established according to the professional competence required by the productive activities in accordance with criteria of knowledge, initiative, autonomy, responsibility and complexity, among of others.

Performance criteria are also defined in terms of what is required to meet the standards of employment, to guide the evaluation of occupational competence. The professional context is also outlined, describing the media of production, products and results of the work, information utilized or generated and other such elements considered necessary for carrying out occupational activities. The definitions of the occupational profile have its starting point in the definition of the general competences. The general competences are a brief description of the essential functions of the occupation. While the "unit of competence" shows the elements of competences related to the behavior expected of the person. Associated training is described in the form of modules corresponding to each of the numbered units of competence. Units of competence only describe functions and desired outcomes and there is no mention of underpinning knowledge or social competences.

In Spain, qualification is normally used in the sense of occupational profile, although as elsewhere it can also refer to

<sup>&</sup>lt;sup>2</sup> Part of the literature dedicated to the competencies concepts distinguishes between two concepts: competence and competency. Competency alludes to the description of the knowledge, skills, experience, and attributes necessary to carry out a defined function effectively [19]. In other words: competency seems to be a description of behaviour, and competence a description of work tasks or job outputs refers to the group of skills and knowledge which are applied in order to carry out a task or function, in accordance with the requirements imposed by the job. While competences refer to broad capacities; in contrast, competency (plural competencies) is a narrower, more atomistic concept used to label particular abilities.

the certificate recognising a person's ability. Similarly, *competences* may refer to competence in a general sense, as basic or specific skills, but these relate almost exclusively to functional tasks. So the Organic Act 5/2002 [25], defines occupational qualification as the set of occupational competences with meaning for the occupation that can be acquired through training in modules or other types of training and through on-the-job experience and occupational competence as the set of knowledge and abilities that enable one to exercise the occupation pursuant to the demands of employment.

#### C. Spanish trainers competences

Spanish trainer's competences and skills are in the process of being established and becoming compulsory. The specialized literature in the continuous training<sup>3</sup>, dedicates a major attention to the determination of the professional figure, roles and competences of the trainers at Spanish level. According to Jimenez [5] "the trainer should help the adult who is capable to increase and improve his knowledge and experiences that allow him to satisfy his interests and to be able to progress individual, social, labour and politically. The professional trainers figure is "the professional of training related to the area of work. Therefore his figure is associated so much to professional as occupational function". In a specific way develops his activity in the continuous training", [1]-[3]. In Spain, the professional figure of the trainers is located in the professional family of the education. (Figure 1, Appendix I). While the Spanish trainer's context and criteria in which the competences and skills they develop are summarized in the Figure 2 (Appendix I).

Delimited the concept of the Spanish trainer's competence, Ferrandez [1]-[3] writes: "the competences between teacher (formal learning) and the trainers (informal and informal learning) should differ very little, speaking always about general competences, since is different when the discourses moves to the specific competences ". The approach of the question changes in the moment in the one that speaks of nonformal training. The professional difference between teachers and trainers is not the basic didactic competences (planning, imparting, evaluation learning and innovation), but the difference between the context of the formal and informal learning in which the competences are developed and applied.

The trainer term includes a heterogeneous group of persons with very different professions. The different origin of his initial formation, his theoretical and practical conception on the life and the work, the diversity of situations in which has to operate, the levels and modalities of the training, the specialities, the materials that they must design or use, the diversity of the groups addressees, they do not make, but add complexity to a new profession and not defined in most of his competences [5]. Therefore the trainer's competences and skills must cover various facets of his profession and in the frame of diverse contexts. So the next sections are devoted to sorting out the basic and specific competencies according to the contexts in which they operate and the criteria under which the competences are defined.

#### D. Context and criteria reference

The reference context is a key in the competence definition and in the recognition of the professional competences, skills, capacity and ability necessary to exercise a profession and to obtain a particular qualification. Therefore the assessment of competences and professional skills of the trainers in informal and non formal learning is conducted on two large and broad reference contexts: the general and specific context. The first includes the institutional and socio-occupational criteria and serves to specify the trainer's professionalism level and the second is focused on the classroom / workshop environment. This is the context where the trainers develop the professional competences and skills. The specific context of the trainer's competences and skills are affected by European and national educational policies, social factors and labour market characteristic. But the most specific of his work is the typology of the training and teaching that has to adapt to the work criteria and the diversity of the participants (addressed and target group) that are employed or unemployed adult and need professional that domain special elements of adult learning. Somehow the specific context is related to basic and specific competences and recognized at Spanish level as qualification occupational frame. From the perspective of the trainers competences, in the two next sections is described with mayor details the general and specific context.

## D1. General context: institutional environment and professional degree

Institutions providing trainers should organise their work collaboratively in partnership with schools, local work environments, work-based training providers and other stakeholders. It includes education, training, retraining, updating in schools and in public and private institutions. The institutional environments in which they work are seen as being closely interconnected with their professional practice.

The situation of teachers and trainers varies according to whether we consider initial training (formal) or continuous training. The formal and informal learning determines the route in which the competences and skills are acquired and recognised. Due to the variety of adult educators' competency profiles and qualifications, validation of competences and prior learning becomes necessary. Their competences frequently go unrecognised as they are acquired at work, by informal exchange. At Spanish level the formal recognition of prior learning is also regarded important as most trainers in enterprises have acquired their knowledge, skills and competences through non-formal and on-the-job learning. In this sense the accreditation is the way to display the competences acquired. To accredit those competences and to transform into forms of formal qualifications can be a key aspect to enhancing the role of trainers in companies and. The accreditation also can promote the route of the recognition of the new figures professionals of the trainers (tutors, mentors and coaches) and reinforcement the professional status.

<sup>&</sup>lt;sup>3</sup> The continuous training includes non-formal an informal learning.

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Regarding this last and according to CEDEFOP [6] "a teacher is a person who is acknowledged as having the status of a teacher according to the legislation and practice of a given country". The title "trainer" is even less clear than the definition of teacher. In many cases "trainer" carries no formal acknowledgement in terms of national/regional legislation and no requirement to hold a teaching qualification. While teachers' duties are performed in formal systems of education - and as such are imbued with certain public, even specific characteristics - trainers develop their work with employed or unemployed adults, who in general are not enrolled in educational systems. To acquire the status of full-fledged teacher, most European systems require a formal teacher qualification, which in most cases has to be achieved prior to the moment of entering into the profession. Thereby most trainers figure such as tutor, instructor, coach and facilitator are not recognized as a distinct category, neither in terms of their function nor as an occupational group. This situation is true for skilled workers in companies who assume training functions as part of their regular job and thus operate as parttime trainers. The absence of a trainer identity also explains why there exist hardly any interest groups for this occupational category in Europe.

#### D2. Specific context: basic and specific competences

Lifelong learning is a common education context of the UE countries being the new scene that teachers and trainers develop the professional activity. The term lifelong learning encompasses all learning activities undertaken throughout life for the development of competences and qualifications. Lifelong learning creates the challenge to understand, explore and support new essential dimensions of learning such as: (1) self-directed learning (2) learning on demand, (3) collaborative learning, and (4) organizational [7]-[8]. Lifelong learning is more than adult education and/or training is a mindset and a habit for people to acquire. As such need new media and innovative technologies to be adequately supported and adjusted as new specific competences and responsibilities teachers and trainers. Adult learning is important for the individual to maintain employability and improve career prospects, since employers need workers with an everexpanding skills base to keep up with the latest developments. In this way that trainers are seen in their double role as professionals of the learning and training. Hence for trainers that works in the area of the non-formal and informal training the addressed group are adult employed. The principal objectives at their work are to teach and to train in the labour area and to help the participants to develop the competence and skills in labour context. Therefore is important that all teachers adopt a culture of lifelong learning. The common European principles on profession trainers are: a profession placed within the context of lifelong learning, a well-qualified profession, based on partnerships and a mobile profession, among others. Thus the training profession should be seen as a continuum which includes initial teacher education, induction and continuing professional development. So is important to

recognize and to order of the trainer's competencies required and accredited in all roles and functions that they support.

Classroom and workshop are the area where the specific competences (skills, capacities and abilities trainers) are encouraged. Also training can occur in all matters which influence the learning process of the individual such as subject knowledge, teaching and learning methods, pedagogy, psychology, organisational approaches, theories and practices.

But for trainers in companies are not expected to have a particular trainer qualification, but need to be skilled workers with a certain period of work experience (typically several years). In this sense considerable practical work experience was found to be important in most countries. Thus, countries tend to focus on trainers' vocational background and expertise as a prerequisite for becoming a trainer, while only a minority of trainers is also expected to have received some pedagogical training [12]. Also work with knowledge, technology and information: they need to be able to work with a variety of types of knowledge. Their education and professional development should equip them to access, analyse, validate, reflect on and transmit knowledge, making effective use of technology where this is appropriate.

The changing role of trainers seems to refer to two aspects: one is an internal role re-definition of the trainer from 'instructor' to 'coach' or 'facilitator', questioning the former authoritarian position of the trainer and requiring new forms of communicative and social competences to engage in team working, mentoring and facilitating new and innovative forms of learning. The other aspect addresses the changing responsibilities of the trainer as the nature of the training itself is changing with more elements of project-oriented learning, new aspects of quality assessment in the learning process and more complex coordination with other training facilities and institutions [26].

Competence development takes place in an action, which is based on an individual's personal experience, as a result forming new experiences. Teaching and education add to the economic and cultural aspects of the knowledge society and should therefore be seen in their societal context. Trainers and teachers should be able to work with others. They work in a profession which should be based on the values of social inclusion and nurturing the potential of every learner. They need to have knowledge of human growth and development and demonstrate self-confidence when engaging with others. Often professionals are not only expected to take over responsibility towards the learners, but are also confronted with immense expectations to act responsibly with respect to far-reaching social and economical challenges. This educational mission, which is often grounded on ethical considerations, is accompanied by concrete questions of accountability, e.g. with respect to learning outcomes, employment goals, etc.

Finally, responsibility also has a didactic dimension: learning processes offer different possibilities to attribute responsibility (e.g. for methods, content etc.). The trainer is a profession that works with and in society. So they contribute to preparing learners to be globally responsible in their role as EU citizens. The ability trainers to meet the challenges of increasing social and cultural diversity in the classroom is crucial for the development of more equitable education systems and for progress towards providing equal opportunities for all and encourage intercultural respect and understanding. Also experience, abilities and personal attribute are essential factors for every individual in order to attain their professional and personal goals.

In accordance with literature review the trainer's competences (in non-formal and informal learning) are a combination of know-how, knowledge, skills, capacities and attitudes appropriate to a determinant context.

This preliminary content on context and criteria, collected from the literature review has been resumed as the first draft e-Delphi instrument (questionnaire). A complete list of them is showed in the Table II (Appendix II). The general context ha served to know the importance of the institutional and professional degree factors on the new role and function of the trainers. The lifelong learning perspective on learning and teaching, the influence of the non formal and informal training on the classroom and workshop area and the specific characteristics of the adult learning as addressed group are the criteria and sub-criteria that allowed to lists the basic (pedagogical) and specific (skills, abilities, aptitude/attitude and personal trainers attribute) competences.

#### III. RESEARCH DESIGN

A Delphi study was used in this research. Delphi method (or technique) has and will continue to be an important data collection methodology with a wide variety of applications and uses to gather information related with some topic of interest and do not exist sufficient knowledges. The Delphi method is mostly used for problem solving, planning and decision-making [16]. It can be categorised as a special kind of survey research, as questionnaires are used for data gathering. During recent years, e-mail has become more and more commonly used to mediate the process. Such studies are generally named "e-Delphi" [21]. The communication mechanism between experts and researchers is the e-mail. An e-mail questionnaire is anonymous in the sense that the physical presence of an "expert" does not exert influence or establish a relationship of power between the experts and the coordinator of e-Delphi process. However, e-Delphi is also an iterative process where controlled feedback is required, typically from a group of experts [18]. The term 'expert' can denote anyone capable of contributing some input towards the research problems. In this case the selected 'experts' were those who would be directly involved in informal and nonlearning, trainers recruitment, training and staff and training management.

Delbecq at al., [4] suggest that two or three iteration Delphi are sufficient for most research. The process stops if the research question is answered: for example, consensus is reached, theoretical saturation is achieved, or sufficient information has been exchanged.

In this research a two-round e-Delphi has been sufficient to achieve the expected result. The study was conducted during the period of March to April 2006.

The stages previous to the application of the rounds e-Delphi are: i) to develop the list of the trainer's competences and skills based on literature review 2) to select experts qualification and experiences limit and 3) to establish individual contact with experts.

The general scheme of the two-round e-Delphi is presented in the Figure 3.

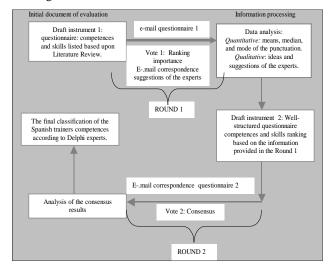


Fig 3 General schema of the two round e-Delphi method

The stage in the first round include: 1) to send a individual e-mail with questionnaire and a document which contains information to facilitate the work of the experts 2) to establish the communication by mail between experts and the facilitator 3) to receive scores and suggest by experts and carry out the analysis 4) to filter the list competences of Round 1 and to prepare the second questionnaire with a list according to experts rated.

Using a open-ended questionnaire containing a list of contexts, criteria's and indicators have been asked to the experts that express their opinion scoring on a Likert scale of 1 to 7 (from least to most) the importance of them. In the questionnaire some blank rows have been put at disposal of the experts to indicate any other skills that they consider important but which do not appear on the list.

For each of the competences and skills listed in the Table II (Appendix II), the experts participants has estimated the importance degree according to 1 a 7 point scale Likert. To establish a competences importance's ranking encompassed in each context, criteria and sub-criteria, the degree of importance is associated with below categories:

- 1 point "very unimportant",
- 2 points "unimportant",
- 3 and 4 points "relatively important",

- 5 and 6 point means "important" and finally
- 7 point "very important".

Subsequent iteration is to identify the desired hierarchy of the competence and skills expert consensus. A second questionnaire has been elaborate on the bases of the analysis of the punctuation as well as any changes of judgments among panellists the Delphi process, data analysis can involve. In this round we have asked the experts to express their degree of agreement or disagreement with the ranking of importance under the first evaluation.

In the second round the evaluation scale is below:

- 1 totally disagree,
- 2 disagree,
- 3 agree, and
- 4 totally agree.

The second round gives the Delphi experts the opportunity to revise his/her judgments, to change their answers for achieving the consensus and to specify the reasons for remaining outside the "consensus" on importance ranking to carry out. The stages are: 1) vote the competences and skills ranking, 2) analysing consensus and 3) summarizing findings.

#### IV. RESULTS OF THE STUDY

TABLE I PROFILE DELPHI EXPERTS

Experts labor characteristics	Number
Institutional context	
Public	8
Private	7
Union	5
Workplace center	
Universities	4
Training center	10
Private Firm	6
Charge Occupied	
Training Manager	3
High manager	3
Mid-manager	2
Human resources manager	2
Training programmer	5
Trainers	3
Tutor	2
Other	
Experience	
Less than three years	4
Between three and six	9
More than six	7

Twenty experts who had participated in the first round also continued their work in the second round.

The total number of participants in both rounds has been twenty experts. In the Table I is showed a brief description of the varied labor profile of the of the e-Delphi experts.

The major statistics used in Delphi studies are measures of central tendency (means, median, and mode) and level of dispersion (standard deviation and inter-quartile range) in order to present information concerning the collective judgments of respondents. The uses of median and mode are favoured, and applied in this study [22]. In the first round the indicators that have obtained a evaluation ranking, at least of the 50% of the experts, in 1 and 2 interval not has been considered in the second questionnaire. The indicators which evaluations are of the 3 and 4 points have been asked the experts to think again. The indicators that have obtained 5, 6 and 7 points have been included in the order of importances in the second evaluation.

In the second round was considered that consensus has been achieved in the case that at last 75% of the experts have checked agree and totally agree categories. This analysis is presented for both rounds in the Table III (Appendix II).

The first evaluation results have shown a reduction of the indicators used in the general context e.g. in institutional and social-occupational context. The indicators such as economic sectors, training modalities, professional family, with mode value located in the categories of "unimportant" are not included in the second questionnaire.

Regarding basic competences for the indicators of the subcriteria "workshop" the evaluations indicate the same mode value (4), and most experts agree that they consider that "course planning" and "course implementation-evaluation" are part of the "management and implementation of training actions". And as such the latter is the most appropriate to present all. Therefore in the second draft-questionnaire appears only the latter indicator.

In relation to specific skills a single indicators "time management" has made value located in the "relatively importance" category. The experts answer comes unanimous in not appreciating mayor relevance on this indicator to be present in the second questionnaire.

Regarding importance of the skills and abilities, expert's punctuation, for most of them, are located in the categories of mayor importance. They suggest that the indicators "reflective skills", "participants focus" and "professionalism and ethic", included in the part of aptitude/attitude, should be part of specific professional skills bearing in mind that trainers face a variety of situation and trainees. Experts also recommend a combination between the indicators of the "Personal attribute" such as "self-perception and self-confidence", among others.

The second round evaluations have shown a growing consensus among experts in the case of the "Competency based in the lifelong learning", and Aptitude/Attitude (or capabilities). The indicators as "identification training need", "training need analysis", "group work, individual tutorship's", "management and implementation of training actions" present the maximum level consensus among experts, respecting basic competences and skills. In regard to Aptitude/Attitude the indicators as "capacity to change", "capacity of motivation" and "capacity of decision making", reach the maximum consensus with 98% of the votes. In any case most of the evaluations has been reached beyond the minimum 75% of the experts were in agreement and fully agree with the proposed ranking in the first round.

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#### V.CONCLUDING REMARK

The concept of competence is becoming the basis for the redesign of the professional future for the Spanish trainers in the formal and non formal learning. The official recognition of the trainer's new competences and skills needed the identification and adaptation into the contexts in which the trainers act.

The results of the e-Delphi method have showed that the most important for the future professional development of the Spanish trainers are the following factors and competences related to general and specific context, respectively:

- Recognition of professional status and highlight the new trainers roles as professionals categories.
- Independently owned family, their basic competences are learning and teaching related to adult learning and continuous training. In this sense the basic competence related to lifelong learning such as "identification and analysis of training needs" are very important and are placed in front of classical pedagogical competences such as "planning and programming of training".
- The specific professional competence encompass new characteristic as essential competences such as "reflective skills", "professionalism and ethic" and "lateral thinking and creativity".
- At level of the abilities, the capability to change, motivation and capacity to decision making are the most important.

Although the analysis of the experts evaluations indicate that the specific competences/skills and abilities, attitudes and personal attribute, are very important to develop the trainers professional figure, the pedagogical competences (planning, imparting and evaluation) of the training not be forgotten. But it must adapt in the training plans for trainers and marked in the new reality that the lifelong learning frame requires.

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APPENDIX I

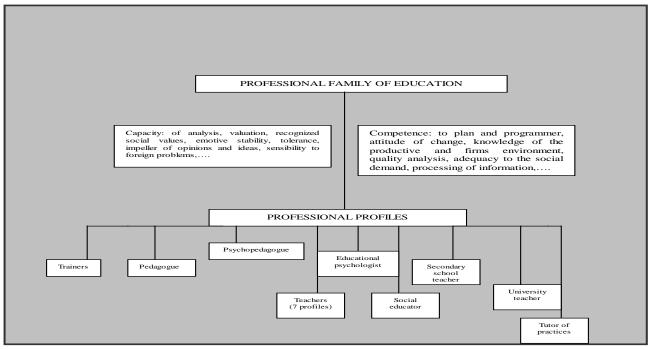


Fig. 1 Spanish education family. Adapted from Jimenez [5].

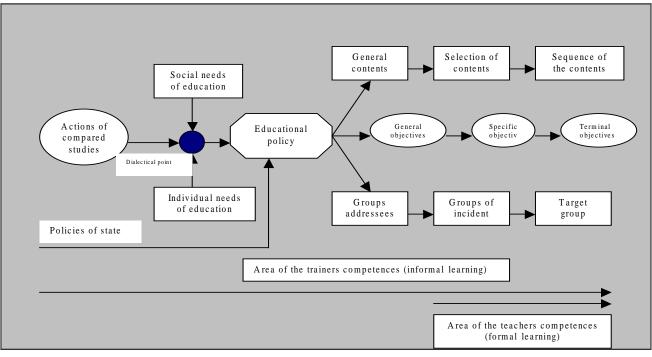


Fig. 2 Competence areas for Spanish teachers. Adapted from Jimenez [5].

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#### APPENDIX II

#### TABLE II FIRST DELPHI QUESTIONNAIRE AND RESULTS OF THE FIRST EVALUATIONS

Competences initial lists	Mode value
I. GENERAL CONTEXT	
1. Institutional (CR)	4
Public	4
Private Union	4
Firms	2 2
II. Social-occupational Context	2
2. Professional degree (CR)	5
Professional category	5
Professional family	2
Economic sector belonging	2
2.1.Status and Role (SCR)	5
Time training dedication,	5
Type of contract	4
Occupied post	4
Training modalities that give	3
New tutor role: mentor, coach, animator, III. SPECIFIC CONTEXT: Basic competence/skills	5
3.1 Competency-Based lifelong learning (CR)	5
3.2. Pedagogical competences-classroom (SC)	5
Planning and programming of training	4
Setting objectives	4
Domain training methodology	4
Designs the training evaluation	4
Selection of media and training resources	5
Schedule the Training Sessions	5
Group work, individual tutorship's	6
3.3 Pedagogical competences-workshop (SC) Identification of training needs	5
Training needs analysis	5
Management and implementation of training actions	6
Course planning	4
Course implementation-evaluation	4
Conduct training activities	4
Document Training Activities	6
3.4 Specific professional competence (SC)	
Systematic approach to modern method training	5
Interactive and flexible training methodology	6
Two-way communication Analysis target groups	6 6
Understanding challenges for adult education	6
3.4.1 Aptitude/Attitude to training (Capacities, CS)	0
Capacity of analysis	5
Capacity of valuation	5
Capacity of motivation	6
Capacity to change	5
Capacity to learn from on-the-job experiences	6
Capacity of initiative and decision making	6
3.4.2 Aptitude/Attitude to LLL (Abilities, CS)	-
Safe and creative training atmosphere Increase self-confidence as a trainer	5 6
Developing the knowledge and skills as trainer	7
Increase self perception	7
Teamwork.	5
Sensibility of foreign problem	5
Emotive stability	6
Professionalism and ethics	6
Interpersonal, inter-group communication	7
Team building and teamwork	5
Time management	3
Participants focus	6
Lateral thinking and creativity Reflective skills	7 7
3.4.3 Personal attribute (CS)	/
Increase self-confidence	7
Tolerance of uncertainty and ambiguity	7
Continuous learning	7
Willingness to challenge assumptions	6
Increase self-management	6
CR: Criteria; SC: Sub-Criteria; All others indicators.	

TABLE III	
SECOND E-DELPHI QUESTIONAIRE AND CONSENSUS	

Competence (ranking lists)	Final ranking % consensus
. GENERAL CONTEXT	
1. Institutional	80
Public	75
Private	75
II. Social-occupational Context	
2. Professional degree	85
Professional category	85
2.1. Status and Role	
New tutor role: mentor, coach, animator,	95
Time training dedication	78
II. SPECIFIC CONTEXT: Basic competence/skills	
3.1 Competency-Based lifelong learning	95
3.2. Pedagogical competences-classroom	90
Identification of training needs	98
Training needs analysis	98
Planning and programming of training	95
Setting objectives	90
Domain training methodology	95
Designs the training evaluation	95
Selection of media and training resources	95
Schedule the Training Sessions	90
Group work, individual tutorship's	98
3.3 Pedagogical competences-workshop	
Management and implementation of training actions	95
Document Training Activities	95
3.4 Specific professional competence	
Systematic approach to modern method training	85
Interactive and flexible training methodology	95
Lateral thinking and creativity	90
Participants focus	80
Professionalism and ethics	90
Reflective skills	80
Two-way communication	95
Analysis target groups	95
Developing the knowledge and skills as trainer	90
Understanding challenges for adult education	98
3.4.1 Aptitude/Attitude to training (Capacities)	
Capacity to change	98
Capacity of initiative and decision making	98
Capacity of analysis	98
Capacity of valuation	95
Capacity of motivation	95
Capacity to learn from on-the-job experiences	80
3.4.2 Aptitude/Attitude to LLL (Abilities, CS)	
Safe and creative training atmosphere	95
Emotive stability	95
Sensibility of foreign problem	95
Teamwork	90
Interpersonal, inter-group communication	85
Team building and teamwork 3.4.3 Personal attribute (CS)	95
Increase self-confidence and self perception	95
Increase self-management	95
Continuous learning	95
Willingness to challenge assumptions	90
Tolerance of uncertainty and ambiguity	75

Consensus percentage is calculated as: total vote in the agree and total agree categories on the total vote. LLL: Lifelong learning