

## Article

# The European Competency and the Teaching for Understanding Frameworks: Creating Synergies in the Context of Initial Teacher Training in Higher Education

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**Abstract:** The aim of this research was to analyze the rich, complex, interrelated relationship that could possibly be established between the Teaching for Understanding framework, pedagogical proposal belonging to Project Zero (Education research team of Harvard University, Boston, MA, US), and the European Competency Framework. Through an in-depth analysis of the constituent features that define and explain both proposals, and questions answered both by teachers with ample classroom experience and experts on the field, it shows that these are two complementary educational perspectives that share a similar vocation and that contribute to improving the teaching-learning process in Higher Education, specifically in the context of initial Teacher Training. Likewise, it analyzes the different factors to take into account when implementing them, particularly in the context of Higher Education; factors that make them complex proposals but also of very high educational value and with the potential to enrich the teaching-learning process, no matter the context.

**Keywords:** higher education; European Competency Framework; teaching for understanding; initial teacher training



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## 1. Introduction

Quality Education is one of the 17 Sustainable Development Goals adopted by all UN Member States in 2015, as part of the 2030 Agenda for Sustainable Development, in order to enable upward socioeconomic mobility and escape poverty. Major progress was made over the past decade, but the harsh reality is that 617 million youth, more than half of all students worldwide are not meeting minimum proficiency standards in key areas such as reading and mathematics [1].

The aim of the Member States was to make sure that all students worldwide acquire the knowledge and skills required to promote sustainable development, specifically in areas such as gender equality, a culture of peace and non-violence, global citizenship and cultural diversity, among others [1].

From a pedagogical perspective, the need to rethink the function of the school so that it represented a more faithful reflection of such social change that contributed towards reaching these goals has become widely apparent; as a reality to be faced at the end of the last century and particularly relevant in the last two decades. In a context in which the storage and retrieval of information was no longer a problem, it seemed necessary for schools to provide students with resources that allow them to adapt to various situations, with success and flexibility [2–5].

To respond to this need for change and to ensure a quality education is globally reached, two pedagogical frameworks coincident in time but geographically distant took

shape—the European Competence Framework (ECF) and the Teaching for Understanding framework (TfU). The first is a consolidated proposal in the European educational context while the second is a new and arguably less known approach from a European perspective; both aim at reshaping education, with remarkable similarities within their own individuality. This research analyzes to what extent they overlap, how they differ, and the kind of synergies that both can create to reach quality in education.

### 1.1. Literature Review

#### 1.1.1. The ECF

There were several authors whose work since the 70s had an impact on this need for change; and both had a significant influence when it came to shaping a European educational proposal based on competences, a few years later. Marton and Saljö [6] highlighted the correlation between student learning and the type of work carried out within the classroom. They established two types of cognitive demand—a superficial one (aimed at memorization) and a deeper one (aimed at comprehension). Biggs [7,8] criticized the psychological perspective traditionally associated, when it comes to understanding the teaching–learning process. He also proposed several factors to be taken into account, such as motivation, previous student experiences, and even professional teaching performance itself. He also proposed a new type of deep learning that involved analysis, understanding, and the ability to work [9]. Finally, James Rhem [10] established a clear dichotomy between information and understanding, emphasizing the need for students to interpret, contextualize, and relate the information with which they worked, with their environment.

These and other antecedents laid the definitive basis for what Competency-Based Learning implied. In 1993, the International Commission on Education for the 21st Century, chaired by Jacques Delors [11] and at the request of UNESCO, brought together 14 experts from diverse cultural and professional fields. They prepared a report (published three years later) that was born with the vocation of being an agent of change—not only from an educational point of view, but with a clear human and social component.

From a global perspective, this report addresses social aspects as key as globalization, social inequalities or justice; from a more educational perspective, it demands a type of education capable of responding to the challenges posed by an uncertain future and in the constant process of change [11].

It bases its proposal on four core principles—(a) learning to know, or seeking a balance between a general knowledge and the increasingly demanded specialization in the work environment; (b) learning to do or looking for students capable of dealing with different situations competently; (c) learning to live, or seeking respect for others; and finally, (d) learning to be, or seeking autonomy at work but also referring to the moral responsibility of each individual [12,13].

It conceives education as a process that extends throughout the life of the person, overcoming the traditional division between the academic and professional stage of citizens. It also seeks to give meaning to what is learned, whose source does not necessarily need to be of academic origin but can come from the daily experience. In addition, it raises a new type of relationship between teachers and students, which goes beyond the mere transmission of content and promotes dialogue and confrontation [11]. In short, it sets the foundation for competency-based learning.

It seems therefore necessary to define what this term encompasses and in fact several proposals were made to define it. Jessup [14] defines it in terms of labor competence, relating it to professional performance. Spencer and Spencer [15] propose a similar approach, relating it to the ability of a person to achieve a degree of superior performance in a given job. More recently, Tejada [16] broadens the approach by understanding competence as the ability to know how to do and know how to be, and also relates this concept to the experience and context of an individual. In this sense, it relates to the idea of intelligence proposed by Gardner [17], who frames the value of a certain product within the context and culture to which it belongs. Tobón [18] further expands the focus of the term, relating

it to vital values and needs. Villa and Poblete [19] (p. 24) define competence as the ability to work in diverse contexts using “the integration and activation of knowledge, norms, techniques, procedures, skills and abilities, attitudes and values”. Other authors [2,20] frame the definition of competence in a strictly academic context and allude to different elements—student’s previous experiences, metacognition, reflection, interaction, and formative evaluation, in order to fully understand this concept.

Among the several proposals to define the notion of competence, some more labor-oriented and some aimed more to an academic context, there were a number of features in common [2,12–20]. First, a strong connection between theory and practice, between what was traditionally understood as academic knowledge and its real application in daily life. Second, a global conception of the person, taking into account both its academic side and its moral part, in order to educate people who can then successfully face any type of situation. Third, conceiving learning as a process that never ends; if reality is constantly changing, people must continually learn how to adapt to it. Finally, the conception of the student as the center of the teaching–learning process; this implies assuming a greater role in aspects such as autonomy, planning, decision making, etc. of learning itself.

In short, competency-based learning conceives understanding as the ability to apply what was learned in a new context; it insists on the need to train globally (both academically and personally); it considers that information is valuable as long as it allows us to create something with it; and finally, it understands that learning must take place throughout life and can come from many different sources.

### 1.1.2. The TfU Framework

#### Introduction

In recent decades, the number of teachers and students who use the TfU framework to improve the teaching–learning process increased significantly [21]. This framework was born some years before the ECF and was not (and never claimed to be) an entirely new project with no links to the past. On the contrary, it was based on the valuable teachings of many pedagogues, psychologists, and previous education experts.

Dewey [22,23] laid the foundations of Experiential Learning, dealing with such nuclear aspects of educational change as the need to start from the student’s prior knowledge. He also redefined the role of teaching and understood learning as a product, as an action. Montessori [24] outlined the elements that constitute Scientific Pedagogy, insisting on three key aspects. First, the need to place the student at the center of the teaching–learning process; the need to understand the context of the student as a source of both learning and motivation; and third, on the convenience of the teacher adopting a role of learning facilitator. Erikson [25], from the perspective of Psychosocial Development, always conceived the student as a diverse and above all autonomous entity. He was also one of the precursors when it came to understanding the inherent value of error, considering it as a priceless source of learning. Piaget [26] laid the foundations of Psychogenetic Learning, raising curiosity as a source of motivation, giving the questions a preponderant role over the answers, and referring to the open nature of classroom work. Vygotsky [27] defended the sociocultural component of learning, promoting a horizontal relationship between teacher and student, and highlighting the role of language in modelling. Sizer [28] outlined its Essential Schools as a place where the teacher is a source of modeling and the community plays an active role in learning and teaching; while at the same time seeking a balance between content depth and extension at all times. Bandura [29,30] laid the foundations of Observational Learning, giving great importance to observation and experimentation in learning. He also highlighted the importance of high expectations within the classroom. Freire [31–33] proposed Dialogic Learning, outlining an equal relationship between the agents involved in learning and insisting on the need to eliminate the dichotomy between theory and practice. He also stated that one of the ultimate objectives of education is that students achieve autonomy in learning. Finally, Bruner [34] studied how the human being processes the information, highlighting the importance of feedback during the evaluation.

At the same time, he placed a special emphasis on the analysis of the cognitive processes involved in learning.

### The Framework

These authors, among others, laid the groundwork on which much of the framework, of eminently constructivist nature, is based. This line of research began to develop within Project Zero [35], a research team belonging to the Harvard Graduate School of Education at Harvard University (Cambridge, Boston, MA, US). They focused from the very beginning on analyzing, understanding, and improving the learning processes, and with strong connections not only with the world of education, but also of Psychology and the Arts. More specifically in the context of teaching, they looked for answers to what they considered were several of the key questions about it [36]. (a) What should teachers teach? (b) What is worth understanding? (c) How should teachers teach to understand? (d) How can students and teachers know what the first ones understand and how can they develop a deeper understanding?

TfU is not about working according to a specific methodology; it is, rather, a series of general guidelines, an approach from which to think about teaching and how to work with our students. TfU proposes a structure with enough versatility to cover the needs of teachers and students regarding the classroom processes; and, what is equally important, to adapt to their specific contexts [37].

Its core objective [38,39] is to place understanding at the center of the teaching-learning process; in other words, to take the contents of the curriculum and related skills as a basis for building a deeper, more comprehensive level of learning. It proposes the formulation of a series of questions or generative topics that serve as a starting point. Directly related to these questions, it proposes to establish a series of short-term or long-term understanding goals (unit and academic year learning goals respectively). Likewise, it proposes to design performances of understanding (classroom activities) that establish a connection between theory and practice; that is, to facilitate the students' achievement of these goals. Finally, it proposes a system of ongoing assessment, in which feedback is both a correction of what is not being done well and a basis for further promoting understanding and learning.

The TfU framework defines the concept of understanding as the "ability to think and perform flexibly with the knowledge that each one has to, for example, solve a problem, present ideas clearly and convincingly, apply concepts using them to describe or explain something" [40] (p. 125). This notion of understanding that is inextricably associated with the ability to apply what is learned is one of the fundamental pillars of the framework.

The notion of understanding, considered to be an action, implies the existence of a wide range of contexts and situations in which to put that understanding into practice, while referring to the complex nature of that concept. To refer more systematically to the qualities that define understanding, Boix-Mansilla and Gardner [41] define four different dimensions of understanding—content, method, purpose, and forms of communication.

The content refers to the ideas the student must know and understand, that is, to the concepts of a particular discipline. The method refers to methods of analysis that should be used to reach the level of understanding required. The purpose refers to the purpose, that is, it assesses a student's ability to orient their learning towards a specific objective. Finally, communication refers to one's capacity to express and communicate what was learned [41].

The TfU framework implies, in brief, to make the contents not lose weight but rather change function in the classroom—so that acquiring information is not an end in itself. Thus, the mere accumulation and reproduction of facts, in an isolated way, has a relative value. Instead, it is about turning that into a means, into a tool that allows the student to think and build a deeper and therefore more durable type of learning [3].

## 2. Materials and Methods

### 2.1. Goals

The main objective of this research was to compare the elements that define both the TfU framework and the ECF and analyze their applicability in the context of the initial training of future teachers. The design and methodology of this research follows a qualitative approach. The adoption of a qualitative perspective is based on Cook's and Reichardt's approach [42]. They present it as an alternative when doing science, since this approach allows the researcher to avoid some of the limitations that the logical-positivist perspective implies in areas of study, like education.

Qualitative research implies understanding that reality is rich and heterogeneous; therefore, it studies reality from the perspective of those who perceive it, focusing on the object of study but giving special relevance to the process, without focusing only on the result. At the same time, it looks for the causes that explain an event, which implies an analysis focused not only on the findings obtained but, above all, on how these findings were achieved. This idea was pointed out by authors such as Báez and Pérez de Tudela [43], Cook and Reichardt [42], and Tójar [44].

A qualitative approach was chosen to allow the participants in the present investigation to contribute their individual interpretations. We tried to ensure that these participants contributed with a context broader than one based merely on results, from different individual bases [42,45,46].

In summary, this type of approach makes it possible to access the cases under investigation in a richer and more nuanced manner, focusing on the details [47–49].

### 2.2. Participants

This research worked with two groups of participants, both of particular relevance in the context of the teaching–learning process.

One group was made up of four teachers who recently graduated with a Primary Education degree. This group had learnt within the ECF, and had crucially, worked according to the TfU framework during their studies, showing a special interest in it. In accordance with this criterion, two graduates of the Primary Education degree were selected, who completed their Final Degree Project on such framework.

It was thought that it could be of great relevance for the research to be able to include a case that reflected that the period of transition that begins with students who are still being trained and ends when they become teachers. It is a transitory period, in which Higher Education completed a cycle, but in which the protagonists did not yet accumulate enough professional experience.

Additionally, a group of experts in the TfU framework was chosen. From a European perspective, the ECF was normalized and standardized in the educational system. It is a framework whose virtues are widely acknowledged and is established (albeit immersed in a process of constant redefinition and evolution) for over two decades. On the contrary, TfU presented a less familiar approach from a European perspective; even if the framework was over three decades old, its presence and influence in the European educational system was far less substantial and therefore required further analysis.

Thus, eight experts on TfU either belonging to Project Zero or deeply connected with its principles were contacted—Tina Blythe, Project Zero Researcher since 1988; David Perkins, Co-director emeritus of Project Zero, together with his colleague Howard Gardner, for 25 years; Paula Pogré, founding member of the L@titud-Harvard Project Zero (Initiative for Understanding and Development in Latin America); Jim Reese, Head of Studies at the Washington International School and linked to Project Zero since the mid-1990s; Angela Salmon, founding member of Visible Thinking Communities of South Florida and who has been working with Project Zero for years; Javier Simón, former member of L@titud-Harvard Project Zero; Joan Soble, member of the Project Zero pioneer team that developed the TfU framework; and finally, Daniel Wilson, Director and PI of Project Zero.

This research wanted to show what the adoption of TfU implies from two different points of view: the teachers working with it and the experts on the field.

### 2.3. Instruments

For the data collection from the teachers, a structured in-depth interview was carried out, so that each participant could transmit their particular vision on the subject to be treated. The interview was previously divided into categories, and it was sought at all times to find out what could be more relevant and important for the present investigation, in the minds of the interviewees. In summary, the aim was to bring to light their approaches and interpretations [50]. The answers obtained followed the same division into categories.

The most important objective at the time of designing the instrument was to understand how the conception that teachers themselves had about their particular professional practice had changed during the process. That is, to what extent a change had occurred and to what extent they were aware of that change.

In a broad sense, the questions focused on both their previous teaching background and the experience gained while the research took place. They were asked to carry out a comparative analysis that took into account both their professional work and their conception of education. Finally, another goal of the interview was that the teachers could reflect on the impact that the framework could have on their work; that is, to what extent they could achieve a significant improvement in their work in the classroom.

The interview protocol for teachers consisted of eighteen questions, divided into four main categories according to their nature, as shown in the following table (Table 1):

**Table 1.** Interview with teachers.

Dimensions	Question
Personal and professional details	1. Subject you teach 2. Seniority in teaching 3. Institutions in which he/she works and characteristics of the institution
Teaching practice prior to the knowledge of the framework	4. Teaching experience prior to the contact with the Teaching for Understanding framework 5. What aspects defined your teaching practice? 6. What was your way of thinking and teaching the subject? 7. What aspects defined your conception of learning? What was your vision of the student? 8. Was your first contact with the framework following this research or prior? 9. What motivated you to take on the challenge? 10. What were the first impressions you had when learning about the framework?
Teaching practice during research	11. Knowing the framework, did it mean a change in your conception of learning? 12. What about your role as a teacher? 13. What about your vision of the discipline and your teaching? (methodology) 14. What aspects of the framework do you identify with the most? 15. How did you feel about the implementation process of the framework? 16. What were the biggest difficulties in rethinking the subject in accordance with the framework?
Likelihood of adopting changes in teaching practice once the research is completed	17. How does the framework contribute to your teaching practice? 18. What are the ideas of the framework to which you attribute the greatest potential in the following areas?

For the data collection from the experts in the TfU framework, it was decided to include in the research professional experts directly related to Project Zero, in general, and the framework, in particular. That is, experts belonging to related but nevertheless differentiated fields. On the one hand, six English-speaking experts belonging to such a research team and who carried out their professional work in an Anglo-Saxon context were chosen. On the other hand, two other Spanish-speaking experts, belonging to L@titud Nodo Sur, who worked in a Spanish-American environment, were also chosen. The goal was to seek to highlight the possible differences resulting from implementing the same educational proposal but in different social, economic, and cultural contexts.

The following table (Table 2) shows the questions used in the present research, both in its Spanish version and in its English version:

**Table 2.** Consultation to TfU experts.

English	Spanish
1. What are the contributions of the Teaching for Understanding (TfU) framework in teaching in Higher Education?	1. La mayoría de las implementaciones del marco de la Enseñanza para la Comprensión han tenido lugar en el ámbito escolar, normalmente hasta secundaria; desde su punto de vista, ¿cuál puede ser la contribución más destacada del marco en la enseñanza universitaria? (Most of the implementations of the Teaching for Understanding framework have taken place in the school environment, usually up to secondary; from your point of view, what can be the most outstanding contribution of the framework in Higher Education?)
2. How does the TfU framework contribute to the learning process of students who will soon become teachers in primary education?	2. Dentro de este ámbito concreto de la enseñanza superior, ¿cree usted que utilizar el marco es especialmente útil a la hora de formar a estudiantes que a su vez están estudiando para ser futuros profesores y por qué? (Within this specific field of Higher Education, do you think that using the framework is especially useful when it comes to training students who are in turn studying to be future teachers and why?)

### 3. Results

#### 3.1. Comparing ECF and TfU

After the comparative analysis of the TfU framework [2,10,36,41,51–61] and the ECF [4–6,9–13], remarkable similarities could be established.

Perhaps the most characteristic and representative common element was the comparison between understanding and ‘being able to do’. In other words, the conception of learning as performance, equating what a person understands with what that person is capable of doing with certain information.

The focus on reflective and comprehensive learning, giving less importance to the transmission and reproduction of information. The value does not reside in the amount of information a student possesses but in seeing what he is capable of carrying out with said training. It is not enough to accumulate content but they must also be able to process and apply them in different contexts. In short, information as a means to an end.

They also propose a new type of more horizontal relationship between students and teachers. Thus, teachers become provokers and facilitators of learning rather than the only source of information.

They both highlight the need to be aware of the fact that different ways of receiving (input), processing, and communicating (output) information are present in the classroom [10]. Something that, in addition to being one of the characteristic features of the TfU framework, was expressly proposed by Gardner and his theory of Multiple Intelligences [62].

Both pedagogical frameworks give prominence to higher cognitive processes. Other types of more superficial processes such as memorization or reproduction of content

continue to play an important role. However, others such as synthesis, inference, contrast, etc., take a more prominent role when planning classroom work [63–65].

Both proposals seek to radically change the profile of the student belonging to the traditional school—passive and receptor of content. On the contrary, their aim is to turn students into an active, autonomous agent that is capable of making their own decisions within the teaching–learning process. It seeks to provide them with resources and tools that allow them to work efficiently, and above all, effectively [66].

Finally, both frameworks argue that educational institutions must prepare their students so that they can face a future that today nobody is able to define exactly—a diverse, demanding environment, in the continuous process of change and certainly unknown [63,67].

As it was shown, these are two educational approaches that overlap in many of its constituent features. However, they also have a personality of their own that differentiates them; far from being exclusive proposals, they are complementary and mutually enriching.

One of the aspects most clearly worked by TfU is that of the curricular organization around key topics, open questions, of a generative nature and that allow multiple approaches and entry points [68,69]. In this sense, they represent an appropriate starting point as generators of interest and reflection around which to organize the content. These questions constitute central issues to one or several disciplines and possess enough complexity to pose a challenge. In summary, the question is understood as a catalytic element when structuring what is to be taught. On the other hand, the ECF also proposes a more open type of curricular organization, with a greater flexibility in establishing the necessary content. It also introduces a more transversal approach, but perhaps without emphasizing the need to organize the curriculum around major topics.

Another aspect that the TfU framework deals with in a comparatively more specific, structured way is that of classroom activities, or by using the framework's own terms, Understanding Performances [61,68]. It is about establishing a bridge between theory and practice based on exercises that go beyond the mere mechanical acquisition of skills. The main objective is to carry out work that forces students to put into practice what they previously learned, and above all, to deepen their understanding. Each performance must be related to a specific understanding goal and must work a specific part of the general objectives set in each didactic unit. The ECF also proposes a reflective, critical, and thoughtful classroom work, but again it has a somewhat more open and less specifically defined approach. It offers general guidelines to guide, but with a lower level of concreteness [21].

On the contrary, the ECF places special emphasis on the transfer part. Not only must students solve a challenge or problem and thus demonstrate a real understanding, but they must be able to transfer that understanding to a real-life situation outside classroom context [18]. Of course, TfU also proposes meaningful learning and is connected with the reality of the student [69]. However, it emphasizes less explicitly how to transfer such learning to situations belonging to non-academic contexts.

Finally, another particularly characteristic aspect of the ECF is the definition of competence itself, more specifically, the formulation of the Didactic Objectives in terms of competence. This implies that the formulation of such objectives always contains a 'what', a 'how', and a 'what for'. Thus, including in the own formulation the information with which to work, the means used to do it, and the methodology put into practice and, finally, the transfer mentioned previously [19]. In this sense, it is a richer formulation than the Understanding Goals proposed by the TfU framework (the equivalent of the Didactic Goals). Although the latter also focus on learning objectives that have to do with a deep understanding of an area or subject, they do not explicitly contain the means used or the purpose for which they are worked.

### *3.2. Suitability of the Implementation of the TfU Framework in the Context of Higher Education (Teacher Initial Training)*

The questions posed to teachers working according to the ECF after their experience with the TfU framework and to eight experts in this field belonging to Project Zero, brought the following results.



### 3.2.1. Training in TfU Has Both Positive and Desirable Results in Future Role as Teachers

Teachers believe that the inclusion of the framework in such training would imply showing a new way of understanding work inside the classroom, which is very convenient when it comes to achieving the goal of transforming the teaching–learning process. It would also be useful to show these future teachers how to propose a type of teaching in which understanding occupies a central place.

Additionally, the experts in the framework also consider that it has a clear role in the initial training of future teachers. In fact, they mentioned that teacher training courses in which the approach proposed by TfU is applied successfully are already being taught.

They highlighted the convenience of using this framework as a tool to improve their own learning process. The adoption of the framework in initial training is also recommended because it makes future teachers produce answers that go beyond the mere reproduction. In turn, this would help them in the long term. It is also beneficial because it implies a type of action and decision making that is based on understanding, on prior learning, and that adapts to changing contexts. The experts did not consider that this should be an exclusionary approach; quite the opposite, they recommended the adoption of the framework in conjunction with the work of other basic competences.

Likewise, Daniel Wilson emphasized a series of elements to consider when a teacher decides to start working according to the framework and that they should also take into account the training of future teachers. The first of these has to do with the fact that not all basic competences that a teacher must master are covered by TfU; this implies that this educational proposal must be put into practice along with other complementary ones. For example, issues such as classroom management or the ability to coordinate a group of students in the dynamics of a classroom are taken for granted. Similarly, the proficiency in the own subject by the teacher who teaches it is taken for granted. In this sense, the implementation of TfU tends to be more effective in those teachers who already have a previous classroom experience, however minimal.

### 3.2.2. Future Teachers Working According to the TfU Framework Change Their Conception of Teaching: Towards the Reflective Professional

The second of the contributions of the TfU framework mentioned by the participants in this research, both teachers and experts, refers to the change that takes place in the conception of the teaching itself. That is, the transformation towards a model of teaching that values aspects such as reflection and metacognition.

More specifically, teachers stressed that the adoption of the framework forces teachers to change their way of understanding what educating means and involves, as well as reassessing what they considered both essential and secondary. One of the concrete examples of this idea was the use of the textbook—while maintaining a remarkable degree of usefulness, it went from being the only source of information in the classroom to being one more resource among the different that can be used within the classroom.

Another change occurs in the weight that thinking acquires within curricular planning; didactic units should be designed to train critical and reflective students, accustomed to justify what they claim by using evidence. For this, it is mandatory that the teacher carry out a work of reflection and prior criticism.

Finally, the teachers emphasized that this way of working calls for a more transversal approach when coordinating with other teachers if what is sought is to achieve the correct design of the didactic proposals.

Similarly, experts in the framework highlighted the power of TfU when it comes to training teachers with the ability to cope with the difficulties of a future that is currently unknown. Being able to work according to a type of flexible and internalized learning empowers them to overcome the challenges of a classroom typology; a kind of classroom that is yet to come and above all to be defined.

They also mentioned the fact that working on the framework gives the teacher a global vision of learning. This vision implies that those who work are aware at all times of the

process, what the starting point is, and what the specific goals towards which they are directed are. In this sense, working according to the framework implies a significant but beneficial cognitive challenge, since it forces us to conceptualize in a clear way the traits that define an effective learning.

They also agreed that working in accordance with this proposal favors a more reflective type of teacher, who asks himself or herself permanently about the relevance of what he or she puts into practice in the classroom. In order to achieve this trait of reflective teacher, as well as the others mentioned above, it is highly recommended that these teachers have had prior contact with the framework; more specifically, during their formative period. It is only through first-hand experimentation, according to the experts, that all pedagogical proposals of the framework could really be internalized and later put into practice in an effective manner.

### 3.2.3. TfU and Its Potential to Improve Teaching Models

The experts belonging to Project Zero agreed when presenting the TfU framework as an element that could contribute to improving current teaching models. They considered it relevant that future teachers were exposed to the framework during their training period in order to understand and internalize their pedagogical bases and thus be able to put it into practice later, throughout their professional career.

One does not get the same results by teaching about the framework if one does not experiment with it; that is to say, future teachers would be able to implement it in a proper way in their classroom routine if they have previously known it first person while they were being trained. This is especially important if one considers the fact that it is difficult for a teacher to teach in a substantially different way to how he or she learned.

Finally, the experts referred to the framework as a valuable and generating asset with much to contribute to the educational period of a teacher. This pedagogical approach proposes to structure the contents based on large thematic blocks. It also proposes to articulate such blocks by large questions of an open nature, while opening debates and topics rich in connections. All undeniably useful activities in the specific context of teacher training.

### 3.2.4. The Current Focus of Educational Institutions and the Overall Context Threaten the Application of TfU by Future Teachers

The last of the issues dealt with by the experts refers to the institutional context in which future teachers and graduates must work; and more specifically, to what extent the necessary circumstances for the implementation of the TfU framework within a given educational center can occur.

When analyzing them, they referred to two possible elements that would hinder the implementation of the framework. First, the fact that teachers in training hardly have contact with the framework in those centers where they carry out their practices. This idea reinforces the point mentioned above and emphasizes the importance for future teachers in training to familiarize themselves with the framework and learn according to it.

Second, those graduates who try to implement the framework in their first years as professionals, sometimes do not have the support that would be desirable by the institutions that hire them. Sometimes, working in accordance with this pedagogical proposal implies redefining the bases that define a specific educational institution. This type of approach could find the rejection or at least resistance from an important part of the staff.

## 4. Discussion

The conclusion reached with this article is that both the EFC and the TfU framework are complementary pedagogical proposals that share a common goal. Consequently, it is highly recommended that those students who are preparing to be future teachers become familiar with the spirit contained in both.

These are future professionals who already belong to a generation immersed in a constantly changing social model that is difficult to anticipate. Although they are partly heirs of traditional teaching models, their personal and social context is typical of the 21st

century. In addition, they are students who in a very short time would be teaching people born in an even more changing environment and who, after their academic stage, must face a future that today is difficult to conceive.

Both pedagogical proposals place special emphasis on the ability to apply what was learned, to solve challenges in a flexible way [3]. Internalizing their principles during their initial training stage would give these future teachers still in the process of learning, the appropriate tools to face a scenario yet to be defined. The sooner they get to know this way of learning, the better they would internalize the principles that define it and the better they would overcome the difficulties involved in teaching in a manner different from the way they learnt [5].

Supporting this idea, authors such as Darling-Hammond and Baratz-Snowden (2009) [70] conceive the adequate training of teachers as a guarantee of a quality education for students. In addition, they defend that in the training of future teachers, they should know pedagogical approaches of an innovative, successful and effective nature first-hand.

Martínez [71] also believes that it is the teacher's responsibility to transmit new ways of teaching, generating the best possible conditions for students to be able to learn in a way that allows them to be autonomous. He claims that universities can and should have a relevant role when it comes to training teachers and that this is a reality that Higher Education institutions must face. Such an objective is not possible, the author argues, if Higher Education is not in contact with innovative pedagogical proposals that seek to put the student in contact with the knowledge society.

Prats [72] also insists on the responsibility that the university has when it comes to achieving professionals capable of facing the challenges of the 21st century. In this process, says Prats, initial training must assume a necessary leadership.

Other authors [2,73] also defend the importance of exposing future teachers to innovative methodologies. They consider that the proper functioning of educational institutions necessarily involves the proper training and professional development of the teachers that form it. García-Valcárcel and Martín del Pozo [74] establish three fundamental pillars that should be given in initial training, as a guarantee of future teachers capable of offering training in line with the demands of 21st century students—ICTs, pedagogy, and disciplinary content; none must be missing.

## 5. Conclusions

The extent of overlap between the TfU and the ECF frameworks is remarkable. Both aim at reshaping the teaching–learning dynamics, both conceive learning as the ability to apply contents and skills in different contexts and both give the student a remarkable degree of responsibility and autonomy in the process.

Based on their beneficial approach to education posed by both pedagogical proposals, the teachers and experts taking part in this research agreed on the desirability of exposing future teachers to both. They highlighted the importance of key factors such as—flexible learning, deep understanding, transversality, autonomy at work, and above all, the ability to solve challenges and problems successfully in the context of a very diverse nature.

Both the TfU framework and the ECF, although with their differentiating features, respond successfully to the aforementioned needs. It is not about choosing one or the other, but about understanding their nature. The teacher should be aware of what they have in common and must be able to appreciate the particular characteristics that make them complementary. It is ultimately about creating a pedagogical synergy in a context of initial training of future teachers. This synergy would make them familiar with a way of learning and teaching that could actually give answers to the professional challenges they would face very soon.

However, the inherent difficulties that both proposals entail should not be overlooked. As was previously stated, a certain degree of working experience, an adequate institutional support, and above all, a solid knowledge of the subject working with are all factors to keep present at all times. However, if such difficulties are properly taken into consideration, the

educational benefits that both proposals offer are undeniable, as it was hopefully proven throughout this research.

Among the several proposals that defined the goal of Quality Education of 2030 Agenda for Sustainable Development [1], there were two principles that stood out from the rest—an education that is both *inclusive* and of *quality*. Both the TfU framework and the ECF focus on learning that matters, on deep understanding, and on the acquisition of XXI-century competences. Both contribute to an easier access to academic success, since both make sure that knowledge is lasting, solid, and useful; both take into account the students' context and interests, and therefore provide them with a kind of learning that is meaningful and useful. As long as students feel connected to the work they do in the classroom, the rate of early school leaving would diminish [75]. In turn, a quality primary and secondary education for all girls and boys ensures that access to higher education or vocational training is really an option for many of them, which is also another specific goal present in the agenda [1].

Education is defined as one of the most powerful and proven vehicles for sustainable development by the UN [1]; but for this idea to become a reality, students must have access to an educational system that prioritizes competences over contents, understanding over memorizing, and thinking over repeating. In summary, a kind of education that empowers them and offers them resources and tools to become proficient professionals and citizens. Both the TfU framework and the ECF, with the already mentioned singularities, share that goal at their core, and consequently, could be of great help to reach the goal of Quality Education required for a sustainable future.

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