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Pedagogical senses of university teaching in Spain: training of education and engineering professionals.

The Pedagogical Meanings of University Teaching in Spain: Training Teachers and Engineers

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Abstract

The pedagogical meanings of teaching are visions, both shared and individual, of teaching that are connected to pedagogical activities and cultural and structural aspects of academic work. The implementation of the European Higher Education Area (EHEA) in Spain has arisen conflict in this regard, as it has given rise to the figure of the teacher-researcher-manager-bureaucrat, along with the commercialization of scientific production and the working conditions of teaching staff. This study examines the pedagogical meanings of university teaching in Spain, specifically focusing on two degree programs: the Bachelor's Degree in Primary Education (Case 1) and the Bachelor's Degree in Construction and Building (Case 2). A collective case study is conducted, employing open interviews with instructors who possess different contracts and trajectories in both programs. A reflective thematic analysis is carried out, yielding the following categories for Case 1: Teacher-researcher profile, Initial Teacher Education in practice, and Uncertain future expectations; and the following categories for Case 2: Teacher-professional profile, Teacher interaction from practice, and Job placement expectations. These findings are discussed in relation to how job challenges, the valuation of professional practice, instability in educational objectives,

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and the influence of the labor market impact the pedagogical meanings of university teaching in these cases. These aspects prompt inquiries into the country´s future projects and the societal role of future professionals.

Keywords: teacher´s conditions of employment; university; practical work; labor market.

Resumen

Los sentidos pedagógicos de la docencia son visiones personales y compartidas que se vinculan con las actividades pedagógicas, así como con aspectos culturales y estructurales del trabajo académico. En el caso de España, la implementación del Espacio Europeo de Educación Superior (EEES) ha generado tensiones en estos sentidos, generando la figura del docente-investigador-gestor-burócrata, así como la mercantilización de la producción científica y las condiciones laborales del profesorado. Este estudio analiza los sentidos pedagógicos en la docencia universitaria en España, centrándose en el Grado en Maestro en Educación Primaria (Caso 1) e Ingeniería en Edificación (Caso 2). Para ello, se lleva a cabo un estudio colectivo de casos a través de entrevistas abiertas en ambas titulaciones, a profesorado con diferentes contrataciones y trayectorias. Se realiza un análisis temático reflexivo que concluye con las siguientes categorías para el Caso 1: Perfil docente-investigador, Formación Inicial Docente en la práctica y Expectativas futuras inciertas; y con las siguientes categorías para el Caso 2: Perfil docente-profesional, Interacción docente desde la práctica y Expectativas de inserción laboral. Estos resultados se discuten respecto de cómo los sentidos pedagógicos de la docencia universitaria en estos casos se ven moldeados por los desafíos laborales, la valoración de la práctica profesional, la inestabilidad en la proyección de los propósitos educativos y la influencia del mercado laboral en la formación de profesionales. Estos aspectos plantean interrogantes sobre el proyecto de futuro del país y el papel social de futuros profesionales.

Palabras clave: condiciones de empleo del docente; universidad; trabajos prácticos; mercado de trabajo.

Introduction

Pedagogical senses in university teaching in Spain: the context of the European Higher Education Area

The concept of "pedagogical senses" about teaching work refers to personal and shared visions of teachers, with social and moral components that go beyond classroom interactions and that are related to motivations and valuations towards teaching work and its educational purposes (Bordoli and Márquez, 2019; Bustos and Cornejo, 2014). These meanings are linked to dispositions, knowledge and positions on pedagogical activities, as well as to cultural or structural aspects of the work (Bordoli and Márquez, 2019; Pineau and Birgin, 2015).

Currently, the global scenario of labour flexibility and deregulation has led university professors to construct their pedagogical meanings on the basis of their perceived status and through highly precarious academic trajectories (Calderón and Sebastián, 2022). In Spain, and in the context of the European Higher Education Area (EHEA), pedagogical meanings have been strained as a result of multiple changes in the last 20 years, impacting on areas such as mental health and self-perceived mastery of their competences (Fernández-Suárez et al., 2021; Mas-Torelló and Olmos-Rueda, 2016). The shaping of the EHEA - popularly known as "the Bologna Plan" - has brought a new role for universities, adapting their training models towards cooperation and convergence of higher education teaching systems (Aránguiz et al., 2021; Matarranz, 2020). In Spain, this process has begun to be formalised since 2007, and universities have modified the curricula of degree programmes, promoting new didactic proposals and academic resources, giving a twist to the pedagogical meanings of training. In this context, there have been several controversies regarding the implications of these changes. Some studies have reported tensions between critical conceptions of the past and nostalgic ones, as well as the questioning of the mercantile conception of higher education. These studies have shown that the growing transformations make it difficult for the university community to connect the valuing of citizenship with the processes of globalisation, and even show a decrease in academic performance in certain degrees (Aránguiz et al., 2021; Garrido, 2021; López-Rodríguez et al., 2016).

Despite the above, these transformations have sought to achieve greater student autonomy in order to abandon the model of knowledge transmission, through the diversification of methodological strategies that respond to different social and labour demands (Fuentes del Burgo and Navarro-Astor, 2015; Montagud and Gandía, 2015; Sánchez, 2022). Likewise, there is research that has reported a high evaluation by graduates of the competences acquired in their degrees, and different authors highlight that, since the 2010s, the priorities of the Bologna Plan have begun to focus on the social dimension of the university trajectory, and on the student body as the centre of learning (Carrión-Martínez et al., 2018; Palma-Muñoz, 2019). However, other studies have shown that Spanish students have increased the use of reproductive cognitive strategies, with superficial and theoretical learning styles, affecting the quality of education (Felipe-Afonso, 2021; Martín-Alonso and Pañagua, 2022).

Thus, these controversies have had an impact on the figure of the Spanish university teaching staff. Pomares and Álvarez (2020) question the bureaucratised role of this group, as well as the figure of the student body as a client. For the authors, the changes promoted by the EHEA have contributed to the creation of a "multi-profile 'teacher-researcher-manager-bureaucrat'" (p.192). The authors argue that Spanish public universities have begun to be run like businesses, commodifying scientific production and working conditions. They question the fact that the quality of scientific articles is often evaluated with criteria that are far from a serious judgement of their contents. Despite this, there are teachers who perceive their role with high responsibility, which would be an expression of a vocational choice that entails personal and professional satisfaction; although they perceive themselves more from an instrumental teaching position in their interaction with

undergraduate students (Monereo and Domínguez, 2014).

Based on these transformations, the aim of this study is to analyse the pedagogical meanings of university teaching in Spain, specifically in the Bachelor's Degree in Primary Education and Building Engineering.

Initial training in the Bachelor's Degrees in Primary Education and Construction Engineering

The Spanish University System is made up of 84 universities, of which 50 are public and 34 are private. Of the total of 3,062 Bachelor's degrees, 73.3% are offered at public universities, and the branch of Social and Legal Sciences is the one with the highest number of degrees, followed by the branch of Engineering and Architecture (Ministry of Universities, 2022). In Spain, both the Bachelor's Degree in Primary Education and the Bachelor's Degree in Building Engineering are regulated professions that can only be practised under conditions regulated by law. Likewise, in order to be eligible for a job in the civil service, they must sit a competitive examination, the difficulty and conditions of which depend on the subject area and the number of places available.

Initial teacher training in Primary Education in Spain is contained in the branch of Social and Legal Sciences. It began in 1839 with the creation of the Seminario Central de Maestros in Madrid or Escuela Normal, which later became the Escuela de Estudios Superiores de Magisterio. Afterwards, teacher training was concentrated in the universities through the Diplomado de Magisterio with a three-year training course. From 1990 onwards, Initial Teacher Education (ITE) in Primary Education underwent a gradual reform process aimed at developing a professional identity based on pedagogical renewal; and subsequently, the EHEA converted the Diplomaturas into Specialisations with the title of Grado in four years in the Faculties of Education (Luzón and Montes, 2018). Since then, IDF has faced several challenges in the country, linked to the capacity of the education system to promote motivation towards the profession, the development of socioemotional competences, professional preparation, among others (Garcia-Vila et al., 2021; Llorent-Bedmar et al., 2019; Magro et al., 2021; Monge-López and Gómez-Hernández, 2021; Muntaner-Guasp et al., 2021). Likewise, the Practicum is becoming increasingly relevant as an essential training context for the construction of a teaching identity (Torres-Cladera et al., 2022).

For its part, the training of engineering students, and specifically in the area of Building, is characterised by being highly changing and flexible, as it is challenged by a permanent process of updating, derived from the development of new construction techniques and multiple regulatory changes (Fuentes del Burgo and Navarro-Astor, 2015). In its beginnings, the Technical Schools provided training for the title of Quantity Surveyor, which transitioned between 1964 and 1970 from training in Technical Schools to universities, culminating in 2007 with the Degree in Building Engineering (COAATMU, 2009; López-Mira, 2005). After Spain's incorporation into the EHEA, this training went from a cycle of three to four annual courses. Currently, this university education can be found under multiple names such as: Degree in Building, Degree in Technical

Architecture, among others; and the branch of knowledge to which it belongs is Engineering and Architecture.

In the current literature, there is a certain consensus regarding some of the challenges involved in their training in the country. Among them, there is a need to strengthen humanistic training that relates engineering to the broader social context (Cáceres et al., 2022; Manjarrés and Pickin, 2021; Rosado-García and García-García, 2022). Thus, progress has been made towards proposals that emphasise active methodological training strategies, as well as the need to transform curricula towards a more practical approach linked to professional practice (Fuentes del Burgo and Navarro-Astor, 2015; Zurro et al., 2023).

Method

Design

This research is based on an interpretative approach, which places the understanding of the experiences of those who make up the social phenomena at the centre (Ponce et al., 2022). It consists of a collective case study (Stake, 2022), as it investigates two cases within the same project: the teaching staff of a Bachelor's Degree in Primary Education and the teaching staff of a Bachelor's Degree in Building Engineering at a public university in Spain. This design has been reported in the literature as appropriate for addressing emerging issues in higher education (Bolaños et al., 2021; Labraña and Brunner, 2022; Natow, 2020), making it possible to analyse multiple perspectives on these issues, recovering the value of consensus as well as opposing perspectives in the cases (Stake, 2022).

In this study, reference is made to "Teacher's Degree" for the former and "Building Engineering" for the latter.

Sampling and study group

Two degree programmes were chosen from the same university, under the criteria of voluntariness and accessibility, as case study research emphasises the depth of the intrinsic analysis in each case, rather than its representativeness (Stake, 2022). Each degree programme is more than ten years old, has a total enrolment of more than 200 students, and corresponds to two different branches of knowledge.

In turn, in each university, the teaching staff was invited through a sequential sampling of gradual selection (Vives and Hamui, 2021). To do this, an invitation was first extended to volunteers, progressing to a chain sampling, and ending with a theoretical sampling. In total, six lecturers participated in each case, with different characteristics in terms of gender, age, type of contract, length of service at the university and departmental affiliation. The characteristics of the study group are described in Table 1 and Table 2.
Table 1.

Case 1: University teaching staff of the Primary School Teacher Training Course

N	Sex	Age	Seniority at university	Contract	Department	h-index Scopus / documents
1	M	40-50	5 a 10	Temporary	Sociology	0/1
2	M	40-50	5 a 10	Civil servant	Specific Didactics I	9/50
3	F	30-40	10 a 20	Temporary	History of education	2/6
4	M	50-60	More than 20	Civil servant	Specific Didactics II	2/7
5	F	40-50	10 a 20	Civil servant	Didactics and School Organisation	4/8
6	M	40-50	5 a 10	Civil servant	Specific Didactics III	4/18

Table 2.

Case 2: University teaching staff of the degree in Building Engineering

N	Sex	Age	Seniority at university	Contract	Department	h-index Scopus / documents
1	F	50-60	More than 20	Civil servant	Graph	1/5
2	M	60-65	10 a 20	Temporary	Constructions	0/0
3	F	40-50	Less than 5	Temporary	Constructions	0/0
4	M	50-60	More than 20	Civil servant	Graph	3/17
5	F	50-60	20 a 30	Civil servant	Constructions	0/0
6	F	50-60	20 a 30	Civil servant	Constructions	9/51

Procedure for collecting and analysing information

Open-ended qualitative interviews were conducted (Sionek et al., 2020), defined as a conversational encounter between the interviewer and the interviewee, based on a thematic script without standardised or pre-designed questions. To this end, the script combined the suggestions published by Monereo and Domínguez (2014) to access teaching identity in higher education with the dimensions of the instrument used by Sánchez and Huchim (2015) to access teaching trajectories. Thus, questions were asked about conceptions of the professional role, usual teaching strategies and feelings, insertion mechanisms and reasons for choosing teaching, professional trajectories, career stages and teacher updating fields. The topics used were the same for all the interviews, although the order, type of questions and depth changed according to the specific realities of each participant, as well as the timing of the sampling sequence.

Within each case, six interviews were conducted under the criterion of conceptual

density or depth. This means that the production of information stopped when the richness, depth, diversity and complexity of the interviews reached a point adequate to answer the research objective (Braun and Clarke, 2021b). These were transcribed verbatim for use in a reflexive thematic analysis (Braun and Clarke, 2019, 2021a, 2021c). In this form of analysis, the reflexivity of the research team involves an engagement with theory, data and interpretation, which has been pursued through the following phases: (i) familiarisation with the data and note writing, (ii) systematic coding of the data, (iii) generation of initial themes from the coded and collated data, (iv) development and revision of themes, (v) refinement, definition and naming of themes, and (vi) report writing, accompanied by verbatim quotes from the interviews.

The reflexive thematic analysis concludes with emergent categories, which are therefore different for each case. Therefore, for the purposes of this article, three thematic categories have been selected that are contrastable between the two cases, as they refer to similar themes and experiences. This has allowed the development of a discussion section that shows the cross-cutting analysis (Stake, 2022). The original categories, as well as those selected for this article, are presented in Table 3.

Following the recommendations of Soratto et al. (2020,) the thematic analysis was supported by Atlas.Ti software version 23.

Table 3.
Categories

Selected categories Case 1	Selected categories Case 2
Teacher-researcher profile	Teaching-professional profile
FID in practice	Teacher interaction from practice
Uncertain future expectations	Job placement expectations
Other categories Case 1	**Other categories Case 2**
University policy for Bachelor's Degrees	Promoting autonomous learning
The centre's tutoring in the Practicum	Responsibility and ethics of professional practice
Privatisation of civil service options	
Gender as a predictor of academic career	Assessments for the advancement of competencies

Ethical aspects

In this study, the open interview required a permanent attitude of welcome, empathy, availability and trust on the part of the research team (Sionek, et al., 2020). In addition to the above, special care has been taken with the confidentiality of the information, safeguarding the anonymity of the individuals. Therefore, no names, departments or universities are disclosed in this article, using only generic nomenclatures.

Results and discussion

Case 1. Training in the Bachelor's Degree in Primary Education

Category 1. Teacher-researcher profile

The teachers interviewed face efforts and precariousness in their careers, especially at the beginning. Although some have previous professional experience, their current identity is mainly based on academia, which requires high productivity in research and extensive dedication to teaching. They recognise an overvaluation of research over teaching, which could affect their promotion and job stability if they devote more time to teaching. This paradox arises from the initial contractual status as Assistant Doctor in Spain, which implies a high teaching load and leads to work intensification.

> *I have the status of Assistant Doctor, I have been working at the university as a university lecturer for more than five years (...) When is it possible to do research in a relaxed manner? When you have a very stable situation, and that stable situation comes when you are a tenured professor (...) The fact is that teaching, although steps are being taken that I praise on paper, in reality, in practice, is what is of least interest; and at least, what has the least impact when it comes to stabilising your situation. So what do you do? You dedicate time to teaching, but you know that you are going to take longer to be promoted (Teacher 3).*

This is combined with the realisation that devoting oneself mainly to research may result in a disconnection with the real educational needs in which their students will work in the future, distancing academic knowledge from professional experience. In this sense, the university teacher-researcher profile that would be promoted in the experiences described above would have implications for the pedagogical senses of teachers, since it could entail the risk of a lack of contextualisation and relevance in the training of future teachers.

> *I don't really agree with the type of content, the way it's organised, it's so theoretical! At university there is a lot of talk about publishing, a lot of talk about conferences, a lot of talk about research. But there is very little talk about the students (Professor 1).*

> *Our research on schools has nothing to do with what we do as teacher training with what our students are going to get later in the education system, nothing to do with it. Another world (Teacher 6)*

Category 2. Initial teacher education in practice

According to Spanish regulations, the Bachelor's Degree in Primary Education must include two or three four-month periods of professional practice, known as Prácticum. The teachers interviewed recognise this period as fundamental for their students' professional learning, as they consider that they will learn about professional practice in educational centres together with the school tutor. This practical experience is valued in the face of a

criticism of university education, which is described as excessively reproductive in terms of theoretical content.

> *Procedures are not taught, how to make an outline, how to work in groups, how to manage information, how to analyse practical elements of the school (...) In the Practicum, the professional tutor is fundamental, because in the end he is the one who is with you, the person who is going to guide you in school, the person who is really going to teach you (Teacher 1).*

Sometimes, the pedagogical competences of school tutoring are weak, and the professional tutor is no longer seen as a reference point. In these cases, university teachers take on the challenge of providing specific support resources for their students in schools.

> *In some seminars I've been told things like: 'if my professional tutor, the teacher, does it badly, what do I do? Of course, then what happens is that we have the dilemma that, in this university, students go where they go. And some mentors or tutors are not the best (Teacher 3).*

> *What is my job as a teacher trainer? To give resources, to give resources and to say 'hey, be careful, what works for me may not work for you' (Teacher 6).*

Category 3. Uncertain future expectations

Much of the sentiment expressed in the stories shows uncertainty about the professional future of their students. Each year, the university graduates a large number of professionals, while the Spanish education system offers few jobs in this area. Therefore, for these teachers, only those who show motivation and commitment will become teachers. The teachers interviewed project the future employment of a large proportion of their students in non-educational areas, arguing that many people choose this profession in an instrumental way.

> *For example, I had students who are police officers, and in order to move up a grade within their police or civil guard force, they are required to have a university degree. This degree is not complicated, it is an easy degree (...) I know that there are students who will never work as teachers because they will not be able to pass the competitive examinations. And then, I know, and you see it in the classrooms, that there are students who you know are going to work in this field because they like it, because they get involved and because it motivates them. Maybe 20% (Teacher 2)*

In view of the above, there are critical senses regarding the responsibility and role of university professors, who question the quality of the training provided. These teachers project the future employment of their students in the public system, which brings with it the idea that competitive examinations will operate as a filter for professional practice. In this sense, introspective pedagogical senses appear, which point to a certain disconnection

in the responsibility of training the country's future teachers, and they question their own educational practices and their implications.

> *Then, 'let the competitive examination system take over'. We take no responsibility for the fact that our training is not good, because we leave all the responsibility for the teachers who enter the system to the competitive examination (...) 'Those who don't know how to teach or those who are not good teachers, the competitive examination will filter them out'. It is a tremendous disconnect (Teacher 6).*

Case 2. Training in the Bachelor's Degree in Building Engineering

Category 1. Teacher-professional profile

All the teachers interviewed reported having professional experience in the building sector. In some cases, access to university teaching was unexpected, and in others, it was experienced as one job option among many others, while only one teacher had the explicit intention of developing an academic career. In part, this is explained by the lack of research tradition in the profession, and the few opportunities that existed some years ago for doctoral studies based on a short-cycle degree comparable to a diploma, which implied a frequent exit from professional performance.

> *I arrived here by chance (...) the truth is that there are some vacancies at the university. I already had professional experience, and well, I took it and filled out the papers (Teacher 5).*

> *When it was the Technical Architecture degree, there was very little tradition in research, simply because it did not give you access to the doctorate programme, and then, because there was no doctorate programme at the university itself (Professor 4).*

This professional experience, in some cases, has run parallel to their work as university lecturers and has had an impact on their teaching-professional identity. For this reason, the accounts express an over-valuing of professional work over research activities, which is sustained by meanings that associate the quality of initial training with the possibility of transferring this experience to students. However, the reports state that academic experience, whether in university teaching or research, has a greater weight than professional experience when the university evaluates the possibilities of access to a civil service career; and they also criticise the fact that the greatest weight for promotion and job stability is research productivity.

> *With the intention of continuing in the university academic field (...) what happens? I am more interested in professional activity than in research. Why? Because I think that if I don't have professional activity, what I teach my students is much more devalued (Professor 5).*

> *How does one get accredited? What is the evaluation? Articles, conferences. Teaching,*

> *professional work (sighs). The promotion within the university is through research, writing, writing, writing and writing. Being a good teacher doesn't get you promoted (Professor 1).*

Despite the above, some accounts question aspects of this teaching-professional profile, as they state that the role of universities is not limited to the training of professionals, and accuse a weak transfer of knowledge from the university to society in the areas of technological development.

> *The province has a weak tradition in terms of its productive fabric, in terms of its industrial fabric, so the university, in a way, has been the formula for this city to generate knowledge that has often not been passed on to society (Professor 4).*

Category 2: Teacher interaction from practice

At the same time, there are different areas of curricular and professional practice in this degree programme. These are valued by the teaching staff, who construct meanings associated with a high relevance of the connection between initial training and approaches to professional reality. Likewise, the pedagogical meanings they construct around the internships carry a high valuation of the interaction that takes place in these spaces. This leads them to incorporate simulation exercises into the theoretical classes, thus generating more enjoyable environments.

> *It happens that when you are explaining, you are explaining and there is no relaxed moment (...) However, when it is a visit, it is something more relaxed, but it is also formative (Teacher 2).*

> *In the practical part, although they also have to be attentive and take notes and see how the rehearsal is done, it always goes faster, it makes the class much more enjoyable (Teacher 3).*

For these teachers, the pedagogical meanings are focused on bringing their students closer to professional experiences, which they relate to autonomy. This is situated in a teaching-professional identity that links the discipline and the exercise of the profession. From the perspective of the lecturers interviewed, Engineering is a profession that requires creativity, which leads to the construction of pedagogical meanings that make university lecturers responsible for this task, through the constant confrontation of their students with real or simulated professional environments.

> *Very practical and very applied (...) That they are real cases, that they generate their autonomy, because I don't give them, as a matter of principle, the things that have been resolved. One of the things I like is for them to be trained in these aspects and to develop their capacity for reasoning and deduction (Teacher 6).*

> *This ingenuity means nothing more than having the ability to develop methods, systems and*

solutions that solve day-to-day problems (Professor 2).

Category 3: Job placement expectations

The degree in Building Engineering was one of the most affected by the economic and social crisis experienced in Spain 15 years ago. This had an impact on a high rate of redundancies, which, according to the teachers' accounts, has been gradually recovering until it has reached a point where there is a greater labour supply than the capacity to respond to it. This would be at the basis of the expectations that teachers have about their students' professional and working futures.

> *As a result of the 2008 crisis, when the whole world of construction fell, everything plummeted (...) Now there is a lack of students, but there is a lack of workers on the street. In other words, there is a lack of technicians on the street. Every week, one or two companies call us asking us for technical interns, and I say 'we have no students, there are no people' (Teacher 1).*

As a result of the above, the pedagogical meaning of university teaching is centred on the training of engineers with the conviction that everyone is going to practice the profession, which awakens a deep sense of responsibility.

> *I believe that I have a great responsibility for them, that they will be the ones who will have a great responsibility for what is built in the world. It is not only here, so our profession encompasses a great responsibility, and that is what I try to transmit to them (Teacher 5).*

Conclusions and Discussions

Firstly, the pedagogical meanings of university teaching in the teaching staff of both cases are influenced by the occupational challenges of academic work, considering their motivations and evaluations (Bordoli and Márquez, 2019; Bustos and Cornejo, 2014). Case 1 faculty emphasise precariousness in the early stages of their careers (Calderón and Sebastián, 2022), while Case 2 faculty experience a limited tradition of research and few opportunities for doctoral studies. Also, most teachers in case 1 have specific disciplinary training but very few are teachers; whereas in case 2, all are engineers. In addition to this, the pedagogical senses of both groups appear to be closely related to concerns about the recognition of academic activities. In both cases, research is perceived to be overvalued to the detriment of teaching, criticising the excessive emphasis on productivity. In this sense, although both groups agree with Pomares and Álvarez (2020) that there is a commodification of scientific production that has an impact on the working conditions of university teaching staff, this study shows that this also affects the pedagogical meanings that underpin teaching itself and the nature of academic work in the university.

On the other hand, both groups highlight the importance of professional practice in the

training of their students, and agree on the value of their students acquiring practical skills by working in professional environments (Fuentes del Burgo and Navarro-Astor, 2015; Torres-Cladera et al., 2022; Zurro et al., 2023). However, in the first case, it is problematised that the emphasis on research may take academic knowledge away from professional experience in initial teacher education, and they consider that their students acquire practical skills by working in schools with professional tutors. Criticisms of university training focused on theoretical reproduction (Felipe-Afonso, 2021; Martín-Alonso and Pañagua, 2022) are combined with self-criticism of their own role in the practical teaching-learning processes of their students. On the other hand, in the second case, the professional experience of university teachers has led them to construct an identity of teacher-professionals, and by valuing practical work more than research, they recognise a leading role in curricular spaces and professional practices to connect initial training with real contexts, and shorten the gap between students and the profession (Manjarrés and Pickin, 2021; Rosado-García and García-García, 2022). At this point, the "multi-profile" referred to by Pomares and Álvarez (2020) would have two aspects: teacher-researcher for case 1, and a new profile not developed by the authors, for case 2, which would correspond to that of teacher-professional. This finding is relevant in that it could be a way of breaking with the mercantile implications of the Spanish educational system in higher education, through pedagogical meanings that seek to confront the dominant proposals. This is an issue that needs to be investigated in the future, which could be related to the fields of training in the technical professions.

Finally, in both cases, the pedagogical meanings of university teaching are constructed with a certain instability with regard to how to project educational purposes (Bordoli and Márquez, 2019), as they are based on concerns about the future employment or employment expectations of their students in their respective areas, having to face the question of what are we training students for? This reality invites us to reflect on the weight that the structural aspects of the national economic system currently have on the pedagogical activities of university teaching (Bordoli and Márquez, 2019; Pineau and Birgin, 2015), impacting on the motivations and decisions of the training of professionals on a daily basis. How far do the impacts of the educational transformations in Spain driven by the EHEA reach? The fact that the pedagogical meanings of university teaching are so influenced by the labour market (Aránguiz et al., 2021; Garrido, 2021; López-Rodríguez et al., 2016), is an invitation to question, as a society, the future project that the country seeks, and the social, and not only economic, contribution expected from its future professionals.

In conclusion, the limitations of this study include the small number of participating teachers and the use of limited sources of information. It is suggested that future research could contrast these findings with other data from students, teachers and/or internship tutors.

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