

Competency-Based Approach in the Initial Training of Secondary Education Teachers: A Case Study

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Abstract

Initial teacher training for secondary education in Spain has evolved through various legislative reforms, ultimately leading to the establishment of the Master's degree in Secondary Education Teaching (MPES). However, this model has been criticized for its lack of alignment between theory and practice, insufficient pedagogical training, and uneven implementation across different autonomous communities. This study aims to analyze the competency-based model of teacher training within the MPES at the University of Valencia and Florida Universitaria (a center affiliated with the aforementioned institution). The study employs a qualitative methodology, involving a documentary analysis of a specific case study. Based on the selected data analysis tools, the study reviews a range of competencies promoted in the teaching guides and verification reports, contrasting them with current regulations regarding competency-based training needs in the MPES. The results reveal a disconnect between the competencies specified in the regulations and their presence in academic programs, with an emphasis on the disciplinary knowledge of teacher training and inclusive education. Thus, the study concludes that it is necessary to revise and update initial teacher training to ensure its consistency and adaptation to the current challenges of the education system.

Keywords: initial teacher training, master's degree, competencies, educational planning

1. Introduction

The quality of secondary education depends largely on the initial training of its teachers. In recent decades, various studies have highlighted the importance of teacher training that not only provides disciplinary knowledge but also develops skills that enable future teachers to address the complexity of the classroom (Vaillant & Marcelo, 2021). In this context, teacher training programs have evolved toward competency-based models, in line with the recommendations of international organizations such as UNESCO and the OECD (OECD, 2019a). Alongside these transformations, these international organizations have promoted structural reforms in teacher training to respond to the demands of more equitable, sustainable, and digitalized education. In fact, UNESCO (2021) underlines the need for profound changes in education to face the challenges of the 21st century in their report "Reimagining Our Futures Together: A New Social Contract for Education". At the same time, the European Education Area 2021-2030 consolidated a strategic framework for educational cooperation within the European Union, promoting policies that ensure the continuous training of teachers and their adaptation to a constantly evolving context (Council of the European Union, 2021). However, the implementation of these approaches continues to pose significant challenges, both at the regulatory level and in their practical application.

These approaches have directly influenced the design of curricula and the evolution of access to teaching in the Spanish context. In line with international reforms, initial teacher training for secondary education in Spain has evolved alongside various educational reforms, each with a particular vision of teaching and the teacher's role (Sánchez-Tarazaga & Manso, 2022). The General Education Law (LGE, 1970) was the first to comprehensively regulate the education system and established the Certificate of Pedagogical Aptitude (CAP) as a mandatory requirement for teaching. However, its implementation presented numerous shortcomings, such as a lack of infrastructure and specialized teaching staff for teacher training. The General Organization of the Education System

Law (LOGSE, 1990) attempted to improve this model with the Pedagogical Qualification Course (CCP), which extended the duration of the training and structured it into theoretical and practical blocks. However, its implementation was paralyzed due to administrative issues, differences between the central government and the Autonomous Communities, and political changes. The Quality of Education Law (LOCE, 2002) proposed a new requirement, the Didactic Specialization Title (TED), which reinforced the role of teachers in improving education, but its implementation was also interrupted with the arrival of a new reform. Finally, the Education Law (LOE, 2006) established the Master's Degree in Secondary Education and Baccalaureate Teaching, Vocational Training and Language Teaching (MPES), currently in force, with more structured, competency-based training and greater emphasis on teaching practice.

Despite the MPES being established as a route to teaching careers in secondary and vocational education, it continues to be criticized for its structure, content, and its level of alignment with the real needs of the classroom. In particular, this model has been criticized for replicating the shortcomings of the CAP, prioritizing disciplinary knowledge over pedagogical training and failing to achieve uniform implementation across all autonomous communities (Sánchez-Tarazaga & Manso, 2022). This criticism highlights the need to continue reviewing and adapting teacher training to respond to the current demands and challenges of secondary education.

In this context, it is important to analyze the extent to which current initial teacher training programs comply with the principles of competency-based education and the extent to which they respond to the needs of pre-service teachers. This study is part of the project "Needs and Challenges in the Initial Pedagogical and Didactic Training of Future Secondary Education Teachers" (CIGE/2023/51), whose objective is to analyze and improve initial teacher training processes in secondary education, creating awareness on this topic. The project is structured into three phases, with this paper focusing on the first phase of the research, which consists of a documentary analysis of the current regulations on the conditions for access to teaching staff for Compulsory Secondary Education and Baccalaureate, Vocational Training, and Language Teaching. To this end, the curricula and verification reports of the MPES of the University of Valencia (UV) and Florida Universitària were examined, comparing the regulations that structure these training programs with their practical implementation. This analysis seeks to identify strengths and areas for improvement in current regulatory frameworks, especially with regard to the training skills offered.

1.1 Competency Development in Initial Teacher Training

As previously mentioned, secondary education teacher training in Spain has undergone significant development in recent years within the framework of the MPES (Spanish Ministry of Education). Since its implementation in the 2009-2010 academic year, the MPES has generated debate about its structure, impact, and suitability for teacher training needs. Its design is based on a consecutive model, in which didactic and pedagogical training is developed after the acquisition of specific disciplinary knowledge. However, this approach has been criticized, as it is considered to contribute to a disconnect between disciplinary knowledge and the pedagogical skills necessary for teaching (Sánchez-Tarazaga, 2019; Lorenzo et al., 2015).

In terms of academic offerings, the MPES is offered both in-person and in blended and online formats. The ownership of the university influences the program structure, with blended and online offerings being more common at private institutions (Sánchez-Tarazaga, 2019). Admission criteria also vary depending on the university, although most are limited to the requirements established by current legislation.

Another relevant aspect is the heterogeneity in the distribution of credits within the curriculum. Although there are common regulations governing their organization, universities have some flexibility in the allocation of elective credits and the structuring of specialties. This has resulted in diverse curricula across different universities.

The MPES curriculum is organized into three main modules (see Table 1): a generic psychopedagogical training module, a specific module focused on the teaching of the specialty, and an external internship module. These modules are associated with the competencies that students must acquire throughout their training. These competencies reflect comprehensive teacher training, combining pedagogical, disciplinary, and research knowledge, with an emphasis on inclusive teaching, classroom management, and student guidance. The program promotes the development of innovative methodologies, values-based education, and student autonomy. Furthermore, the internship represents a key opportunity for the application of these competencies, but its effectiveness depends on better coordination between universities and educational centers.

The competencies defined in teacher training reflect the characteristics of current approaches to teacher education. In recent years, there has been a trend toward the adoption of active, student-centered methodologies. An example of this trend is the increasing adoption of methodologies such as Project-Based Learning (PBL), case study resolution,

and interdisciplinary work. These methods of teaching and learning are gaining prominence, encouraging student participation and the development of skills such as critical thinking and problem-solving (García-Gómez & Gil, 2022).

Furthermore, the integration of technology in the classroom has become a priority, promoting teacher training in digital skills and the use of technological tools to enrich the teaching-learning process (Santiago-Trujillo & Garvich-Ormeño, 2024).

Table 1. MPES Curriculum and Skills That Students Must Develop

Type	Module	Number of credits	Competencies
General	Learning and personality development	12	1. Know the curricular contents of the teaching specialization and the didactic knowledge associated with teaching and learning, including vocational training.
	Educational processes and contexts		2. Plan, develop, and evaluate teaching and learning processes, promoting the acquisition of skills and adapting to the level and needs of students.
Specific	Society, family and education	24	3. Search, process and communicate information in different formats, transforming it into knowledge applicable in the classroom.
	Additional components of disciplinary training		4. Participate in the development of the center's curriculum and develop group and personalized teaching methodologies, adapted to the diversity of the students.
Practicum	Learning and teaching of the corresponding subjects	16	5. Design equitable learning spaces, with an emphasis on emotional education, values, equality, citizenship, and sustainability.
	Teaching innovation and initiation into educational research		6. Promote effort, independent and group learning, as well as the development of thinking, decision-making, and personal autonomy skills.
	Internship in the specialization, including the Master's Thesis		7. Master communication and interaction in the classroom, promoting coexistence, learning, and conflict management.
			8. Organize formal and non-formal educational activities, perform mentoring and guidance functions, and participate in educational evaluation, research, and innovation.
			9. Know the regulations and organization of the educational system, as well as improvement models applicable to the centers.
			10. Analyze the historical and social evolution of the teaching profession and its impact today.
			11. Advise families on the educational process and the personal, academic and professional guidance of their children.
			12. Evaluate the psychopedagogical characteristics of students and prepare reports.
			13. Know and apply diversity care measures to offer appropriate advice.
			14. Coordinate the personal, academic and professional guidance of students within the educational center.
			15. Develop skills to advise families on their children's development and learning.
			16. Identify and collaborate with public services and community entities to improve student service.

Source: Order ECI/3858/2007, of December 27

However, innovative teaching practices are still a minority in Spanish secondary education classrooms. Factors such as resistance to change, lack of specific training, and structural limitations in schools hinder the implementation of more innovative pedagogical approaches (Contreras et al., 2019). In this context, the competency-based approach has gained particular relevance, as it seeks to overcome these barriers through training that prioritizes the development of skills applicable to classroom settings and promotes more flexible teaching, adapted to the needs of students and the

challenges of the current education system.

1.2 The Competency-Based Approach in Teacher Training

The implementation of the Bologna Plan transformed higher education in Spain, promoting a competency-based approach that sought to align university education with the demands of the labor market and today's society. This approach focuses on the development of general and specific competencies, fostering the acquisition of practical skills and knowledge applicable in real-life contexts. According to Montero (2010), general or transversal competencies are those that are necessary and common to all studies and are defined as "skills necessary to practice any profession effectively and productively" (p. 29). Specific competencies vary across degrees and refer to the knowledge that shapes the thematic specificity of each degree.

In this regard, the European Union developed reference frameworks that guide the development of key competencies in education systems, establishing a lifelong learning model aligned with the social and professional needs of the 21st century (Council of the European Union, 2021). This framework is structured around four major competency references:

- LifeComp (Life Skills): establishes a set of transversal competencies aimed at strengthening personal, social, and lifelong learning development (Bacigalupo et al., 2020). In the field of teacher training, this framework emphasizes the need for future teachers to develop socioemotional skills, critical thinking, and self-awareness, essential elements for teaching in diverse and constantly changing educational contexts.
- GreenComp (Sustainability Competencies): defines the knowledge, skills, and attitudes needed to foster sustainability at all educational levels (Bianchi et al., 2022). This framework promotes the incorporation of environmental education as a cross-curricular component, fostering systemic thinking, critical decision-making, and responsible action in the face of climate and ecological challenges.
- EntreComp (Entrepreneurial Competencies): establishes key competencies for entrepreneurship, understood as the ability to transform ideas into actions (Bacigalupo et al., 2016). In education and teacher training, this framework translates into fostering creativity, innovation, and teacher autonomy, in order to prepare students to face challenges with a proactive and decisive approach.
- DigComp (Digital Competencies): provides a common framework for digital literacy and the integration of technology in education (Carretero et al., 2017). This framework allows for the certification of teachers' digital competency in Spain, guaranteeing mastery of digital tools for teaching, assessment, and educational communication.

In line with these frameworks, the implementation of the competency-based approach in Spain entailed a profound review of university curricula, promoting more active and student-centered methodologies. This involved a change in how teachers work, which has become more complex and dynamic due to multiple social, technological, and pedagogical factors (Sánchez-Tarazaga and Manso, 2022; Ros-Garrido & García-Rubio, 2016). Far from being limited solely to interaction with students or the transmission of knowledge, the role of teachers has diversified, integrating new responsibilities ranging from managing diversity in the classroom to promoting independent learning and developing transversal skills. This evolution responds to changes in educational demands and the need to prepare students for uncertain and constantly changing contexts (Schleicher, 2018).

In this regard, competency development has emerged as a fundamental pillar of educational processes, both for students and teachers (Council of Europe, 2018). The competency-based approach promotes teaching that transcends content memorization, prioritizing skills such as critical thinking, problem-solving, and collaboration, essential aspects of 21st-century education (OCDE, 2019b). This perspective, in turn, has redefined the teaching profile, establishing the need for ongoing training that integrates pedagogical, technological, and emotional knowledge (Caena & Redecker, 2019). The application of the competency-based model of teacher training has led to a significant transformation in educational programs. This model encourages teachers not only to acquire theoretical knowledge but also to develop practical skills and attitudes necessary to face real-life situations, thus fostering more meaningful and lasting learning. This paradigm shift requires teachers to adopt active, student-centered methodologies, facilitating the development of key competencies.

When comparing the competency-based approach with other training models, it is observed that, while traditional education focused on the transmission of content and assessment through standardized tests, competency-based education focuses on the development of skills applicable to problem-solving in specific contexts and, in turn, transferable to new situations. This approach prioritizes continuous assessment and learning personalization, allowing students to progress at their own pace and demonstrate their competencies in key areas as an indicator of

their progress (Ortiz et al., 2018).

In this sense, digitalization and globalization have driven a transformation in the expectations placed on teachers, demanding greater adaptability and constant updating in innovative methodologies and emerging technologies. Furthermore, teachers' well-being and emotional management have become key factors in ensuring quality teaching, given that motivated teachers with emotional self-regulation strategies have a positive impact on student learning. Therefore, the development of competencies not only impacts teaching but also strengthens educational leadership, the capacity for innovation, and teachers' resilience in the face of current challenges (Hargreaves & Fullan, 2012).

The impact of the competency-based approach on teacher training also requires tools that facilitate the analysis and evaluation of the structure and effectiveness of curricula. To better understand how training programs are designed and tailored to these competencies, it is essential to have analytical tools that assess their coherence, applicability, and alignment with the demands of the education system. These tools facilitate the identification of strengths and areas for improvement in teacher training, providing key data for decision-making in the educational field.

1.3 Instruments for the Analysis of Study Plans

There are various assessment instruments that measure both the formal structure of training programs and their impact on competency acquisition (Zabalza, 2011). In Spain, the verification and reaccreditation reports for official qualifications regulated by the National Agency for Quality Assessment and Accreditation (ANECA) constitute one of the main analytical tools. Verification reports are documents that justify and validate the quality of a qualification before its implementation. Their structure typically includes sections such as program objectives, competencies, educational planning, available resources, and monitoring and improvement mechanisms. These reports are fundamental in the accreditation and quality assurance processes, ensuring that programs meet the standards required by assessment agencies. However, they have limitations because they focus on formal criteria without thoroughly considering the implementation of the competency-based model in the actual teaching practice.

In addition to the analysis of institutional reports, student and faculty surveys have been widely used as a method for evaluating the curricula of Spanish universities. The Docentia program, developed by ANECA (National Association of Educational Research Institutes), incorporates student and faculty surveys as one of its main tools for evaluating teaching quality at universities. These surveys gather information on student perceptions of methodology, quality of presentation, interaction with faculty, and the appropriateness of content and assessment. Faculty surveys are also included, enabling the teaching staff to reflect on their teaching practice, identify areas for improvement, and assess available institutional resources. However, although surveys offer valuable information, their use as a sole assessment tool has methodological limitations, given that student perceptions can be influenced by subjective factors such as prior experience or personal expectations regarding the training received. García et al. (2020) warn that student satisfaction surveys can be affected by factors unrelated to teaching quality, which limits their validity as a sole tool for measuring teacher performance. Therefore, it is essential to complement them with other assessment methods that provide a more comprehensive view of the impact of curricula on teacher training.

2. Method

The overall objective of this study was to analyze the competency-based model used in the Master's Degree in Secondary Education Teaching (MPES) at the UV and Florida Universitària (a center affiliated with the aforementioned institution). Based on the hypothesis that the official courses for this master's degree mainly promote competencies related to general teaching skills, this research aims to explore how and to what extent they do so. This study follows a qualitative methodology, as it seeks to gain an in-depth understanding of how educational institutions structure and promote teaching competencies within their training programs. Regarding the data collection and analysis tools, a content analysis of key educational planning documents was chosen to identify which competencies are prioritized and how they align with pedagogical approaches and the demands of the current educational context. This competency-based approach, grounded in the acquisition of teaching skills, will be examined through a case study that provides a deeper understanding of educational practices and policies at these universities. The combination of case study and content analysis provides a holistic and detailed view of the context, facilitating the interpretation of trends and patterns related to competency-based training in the initial training of future secondary school teachers. The methodological strategy applied in the present content analysis followed the model established by Krippendorff (2013), which defines different key stages:

a) Designing the analysis plan. In this phase, the estimated time for the content analysis was defined, between September and December 2024. Three researchers participated in the reading, coding, analysis, and extraction of

results.

b) Sample selection. The sample was intentional, given that the legal regulations governing access to secondary school teaching staff were analyzed (initial phase of reading and coding of ORDER ECI/3858/2007). Subsequently, after coding a series of competencies, the MPES curricula (analysis phase) was reviewed based on the master's verification report and the teaching guides for general subjects (Learning and Personality Development, Educational Processes and Contexts, and, finally, Society and Family) at both of the aforementioned universities.

c) Defining Coding Instructions. An Excel spreadsheet was prepared for interpretation of the results interpretation. It included the list of indicators for review (context units) on its vertical axis, and the structure of these documents on its horizontal axis to verify which sections did or did not mention them, including only the sections on competencies and learning outcomes. Using this indicator spreadsheet (see Table 2), the aforementioned teaching guides for the general MPES subjects at *Florida Universitària* and UV were reviewed. A thorough review was conducted to determine the frequency of occurrence in each of the categories (basic, general, specific, and transversal or learning outcomes). The presence or absence of these competencies were recorded in the previously designed Excel spreadsheet to quantify the number of repetitions of each of the established indicators.

d) Interpretation of the results. On the one hand, we analyzed the extent to which the official curriculum includes competencies related to professional teaching, according to the specifications of ORDER ECI/3858/2007. We also analyzed both the manifest and latent content, taking into account the frequency of occurrence of the indicators and their absence.

Table 2. Indicators Taken into Account for Review in Verification Documents and Teaching Guides

Sections of the document	Search criteria
COMPETENCIES (basic, general, transversal and specific)	curriculum* process* subject* methodolog* equity* effort* coexistence* participat* rule* profession* guid* eval*
COMPETENCIES OF THE LEARNING AND PERSONALITY DEVELOPMENT SUBJECTS	motivat* personality* strength* education* situations
COMPETENCIES OF THE EDUCATIONAL PROCESSES AND CONTEXTS SUBJECTS	problem* education* system tutor* emotional* education* project
COMPETENCIES OF THE SOCIETY AND FAMILY SUBJECTS	environment* family context* social*

Source: own elaboration.

3. Results

In the Results section, summarize the collected data and the analysis performed on those data relevant to the discourse that is to follow. Report the data in sufficient detail to justify your conclusions. Mention all relevant results, including those that run counter to expectation; be sure to include small effect sizes (or statistically nonsignificant findings) when theory predicts large (or statistically significant) ones. Do not hide uncomfortable results by omission. Do not include individual scores or raw data with the exception, for example, of single-case designs or illustrative examples. In the spirit of data sharing (encouraged by APA and other professional associations and sometimes required by funding agencies), raw data, including study characteristics and individual effect sizes used in a meta-analysis, can be made available on supplemental online archives.

Table 3. Comparison of the Mention of Predefined Indicators in the Different Documents Reviewed

Search criteria		Verification report	Teaching Guide Learning and Personality Development		Teaching Guide Processes and Contexts		Teaching Guide Society and Family	
			UV	Florida	UV	Florida	UV	Florida
COMPETENCIES	curriculum*	61	1	1	2	0	0	0
	process*	244	0	0	4	4	2	2
	subject*	125	2	5	2	8	8	5
	methodolog*	48	1	1	1	1	1	0
	equity*	53	1	2	1	2	1	1
	effort*	76	1	2	1	2	0	0
	coexistence*	104	1	2	2	2	1	0
	participat*	353	2	3	4	8	4	5
	rule*	27	0	0	1	2	0	0
	profession*	437	2	4	6	9	6	6
	guid*	351	2	2	6	9	4	7
LEARNING AND PERSONALITY DEVELOPMENT COMPETENCIES	motivativ*	0	0	1	0	0	0	0
	personality*	0	0	1	0	0	0	0
	strength*	28	1	3	1	2	0	0
	education* situations	0	0	1	0	0	0	0
PROCESSES AND CONTEXTS COMPETENCIES	problem*	95	2	4	3	5	6	2
	Education* system	22	0	0	2	2	3	0
	tutor*	190	1	1	3	5	2	2
	emotional*	53	1	3	1	2	1	1
	education* project	0	0	0	0	1	0	0
SOCIETY AND FAMILY COMPETENCIES	environment*	0	0	0	0	0	0	1
	family context*	0	0	0	1	0	0	0
	social*	131	2	4	3	6	13	5

Source: own elaboration.

The following lines show the results collected from this study, thus attempting to respond to the objective posed on the analysis of the competency-based approach present in the training of the Master's Degree in Secondary Education Teaching (MPES) of the UV and Florida Universit ria (center affiliated with the aforementioned). It is worth mentioning that after coding a series of indicators extracted from ORDER ECI / 3858/2007, the same structure was used in an Excel document to analyze the presence or absence of these in the verification documents of the master's degree (it is the same report for both centers, UV and Florida Universit ria) and then the six teaching guides of both

higher education centers mentioned were reviewed, in relation to the generic subjects of the MPES (Learning and Personality Development, Educational Processes and Contexts and, finally, Society and Family). This systematic analysis has allowed us to quantify the presence of these indicators in the reviewed documentation (see Table 3) and has also allowed us to include a section on observations where other relevant aspects for the research have been collected, allowing us to provide greater context to the content analysis based on the reviewed case analysis.

Considering the quantitative review carried out first, it is worth mentioning that the indicators least present in the verification reports are, in turn, those least mentioned in the reviewed teaching guides (items marked in red in Table 3). It can also be stated that the least mentioned indicators correspond to the generic competencies that must be included in the three aforementioned subjects, with Learning and Personality Development having the fewest total indicators. This aspect indicates internal consistency in the drafting and decision-making of the pedagogical approach to be developed in the aforementioned master's degree subjects, emphasizing the general competencies that secondary education teachers must acquire.

Below, the meaning of these indicators, which are less present in the educational planning documents cited above, has been explained according to the description included in ORDER ECI/3858/2007 (p.3-4):

- **Motivat*** addresses the "Understanding of students' characteristics, social contexts, and motivations". Learning and Personality Development subject.
- **Personality*** addresses the "Understanding of the development of students' personalities and the potential dysfunctions that affect learning". Subject: Learning and Personality Development.
- **Education*** situations addresses "Identifying and planning the resolution of educational situations that affect students with different abilities and learning rhythms". Learning and Personality Development subject.
- **Education*** project refers to "Participating in defining the educational project and the center's general activities, taking into account criteria for quality improvement, attention to diversity, prevention of learning problems, and coexistence". Educational Processes and Contexts subject.
- **Environment*** addresses "Relating education to the environment and understanding the educational role of the family and community, both in the acquisition of skills and learning and in education in respect for rights and freedoms, in equal rights and opportunities between men and women, and in equal treatment and non-discrimination of people with disabilities". Educational Processes and Contexts subject.
- **Family context*** addresses the "Understanding of the historical evolution of the family, its different types, and the impact of the family context on education". Educational Processes and Contexts Subject.

On the contrary, as suggested in the previous lines, the indicators most frequently found in the MPES verification documents refer to general competencies that teachers of Compulsory Secondary Education and Baccalaureate, Vocational Training and Language Teaching must develop during their initial training in said master's degree (bold items).

Below, we also explain the meaning of these indicators to clarify these items:

- **Process*** responds to "Planning, developing and evaluating the teaching and learning process, promoting educational processes that facilitate the acquisition of the skills specific to the respective teachings, taking into account the level and previous training of the students, as well as their guidance, both individually and in collaboration with other teachers and professionals at the center".
- **Participate*** responds to "Designing and carrying out formal and informal activities that contribute to making the center a place of participation and culture in the environment where it is located; developing the functions of tutoring and guiding students in a collaborative and coordinated manner; participating in the evaluation, research, and innovation of teaching and learning processes".
- **Profession*** responds to "Knowing and analyzing the historical characteristics of the teaching profession, its current situation, perspectives and interrelation with the social reality of each era".
- **Guid*** responds to "Informing and advising families about the teaching and learning process and about the personal, academic and professional guidance of their children".

However, in this case, an internal inconsistency is observed, given that the items most frequently present in the verification reports, and which, therefore, carry the greatest weight in professional teaching according to educational policies in this area, are not present in the documents that develop the educational planning for the specific subjects. Thus, a disconnect is observed between what should be and what is ultimately established in the documents

governing the general subjects of the MPES. In fact, the presence of these items is generally very discreet, both in the specific delimitations of the general subjects and in the competencies that apply transversally throughout the master's degree.

At a qualitative level, it is important to note that after analyzing the items listed in Table 3, the observers indicated that some of these terms appeared in other sections of the documents, such as the introduction, content, methodology, workload, or the evaluation itself. The structure of the analysis template reflected their presence or absence in the sections on competencies (basic, general, transversal, and specific) or learning outcomes. Therefore, these observations also highlight an internal inconsistency in the common drafting strategy for the sections related to educational planning, as these indicators are listed as competencies in the specific regulations and should be included in these sections, not elsewhere.

4. Discussion

This study provides an original contribution to the analysis of the official verification and curriculum planning reports of the Master's Degree in Secondary Education Teaching (MPES), an area scarcely explored in the Spanish context. Although the absence of previous research prevents direct comparison, the findings allow meaningful parallels to be drawn with broader studies on initial teacher education.

The results reveal a disconnect between the official design of the program (as expressed in verification reports) and its actual implementation in course syllabi and teaching guides. This discrepancy aligns with the conclusions of Marcelo and Vaillant (2021) and Sánchez-Tarazaga (2019), who identify persistent fragmentation between disciplinary knowledge and pedagogical or professional competencies. Similarly, Kitchen and Petrarca (2016) point to the lack of integration among theoretical, practical, and reflective dimensions in teacher training.

Despite the existence of a regulatory framework promoting competency-based education, the study confirms that its practical application remains inconsistent. The emphasis on disciplinary knowledge continues to outweigh the development of transversal competencies such as innovation, problem-solving, or reflective practice. This imbalance suggests that competency-based principles are more normative than operational within the current structure of the MPES.

Interestingly, the comparison between two institutions of different ownership—a public university (University of Valencia) and an affiliated cooperative institution (Florida Universitaria)—revealed no substantial differences in the implementation of the competency-based model. This indicates that the limitations observed are likely systemic to the design of the MPES rather than attributable to institutional factors.

These findings reinforce the need for stronger curricular coherence between the official verification documents, the internal planning of modules, and the actual pedagogical approaches used in the classroom. As previous studies have argued (Vaillant & Marcelo, 2021; Contreras et al., 2019), bridging the gap between theory and practice is essential for developing teachers capable of responding to real educational challenges in 21st-century schools.

Finally, it is important to acknowledge the limitations of this study. The documentary analysis focuses on formal curriculum elements and does not capture how these competencies are enacted in practice. Future phases of the research will therefore include data from teacher and student surveys to assess the degree of alignment between institutional design and actual teaching practice.

5. Conclusions

This research demonstrates that, although the MPES is formally framed within a competency-based education model, there are inconsistencies between its regulatory framework and its practical implementation. Verification reports emphasize transversal and innovative competencies, but these are not sufficiently reflected in the design of teaching guides, where disciplinary content still predominates.

The findings contribute to the field of teacher education by offering empirical evidence of the need to revise and update the structure of initial teacher training programs in Spain. Ensuring curricular coherence is essential for aligning official regulations, teaching practice, and the real demands of classroom contexts.

In practical terms, a comprehensive review of the MPES is recommended to guarantee effective integration of competency-based learning across institutions. This should include:

Strengthening the development of digital competence, inclusive education, and active learning methodologies.

Promoting stronger connections between theoretical knowledge, practical experience, and reflective processes.

Ensuring that teaching guides explicitly operationalize the competencies defined in verification reports.

Future research should expand the scope of this study by incorporating qualitative approaches—such as interviews or focus groups with educators and students—to explore perceptions of program coherence and the impact of training on professional practice. Additionally, examining the transfer of initial training to real teaching performance would provide valuable insights into the effectiveness of the current model in preparing teachers for the evolving challenges of education in the 21st century.

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Authors contributions

Dr. Irene López-Secanell was responsible for the theoretical framework and literature review. Dr. Estefanía López-Requena designed the methodology, conducted the data analysis, and drafted the results section. Dr. Inmaculada Ródenas i Marco wrote the discussion and conclusions and integrated the final version of the All authors read and approved the final manuscript. The authors declare that they have contributed equally to this work and agree on the order of authorship.

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