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## Rural Teacher Competencies: An International Comparative Study on the Territorial Dimension of Rural Schools

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☞ This article presents the results of a descriptive study carried out within the framework of the FOPROMAR project, obtained after administering a questionnaire regarding competences related to the territorial dimension of rural schools among teachers working in rural schools in Spain (Aragon and Catalonia), France (Aquitaine) and Portugal (Alto Alentejo). The questionnaire included three parts (professional profile, competences on the territorial dimension of the school and knowledge about the territory), but only the results referring to the competences section are presented, showing the level of relevance and the degree of mastery that teachers express in relation to these competences. According to the results, the competences with the greatest mastery are those referring to the design and development of programmes, followed by professional competences and school-community relations. This order is also found in the assessment carried out, indicating that they are more valued than mastered. One of the conclusions is the need to reinforce competences not included in training plans, but considered more necessary and important for working in rural schools.

**Keywords:** rural school, territorial dimension, teaching competences, teacher training

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## Kompetence učiteljev na podeželskih šolah: mednarodna primerjalna študija o ozemeljski dimenziji podeželskih šol

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∞ V tem članku so predstavljeni izsledki opisne študije, izvedene v okviru projekta FOPROMAR, ki so bili pridobljeni po posredovanju vprašalnika o kompetencah, povezanih z ozemeljsko dimenzijo podeželskih šol, med učitelji, ki delajo na podeželskih šolah v Španiji (Aragonija in Katalonija), Franciji (Akvitanija) in na Portugalskem (Alto Alentejo). Vprašalnik je vseboval tri dele (poklicni profil, kompetence o ozemeljski dimenziji šole in znanje o ozemlju), vendar so predstavljeni le rezultati, ki se nanašajo na del o kompetencah in ki kažejo stopnjo pomembnosti in obvladovanja, ki jo učitelji izražajo v povezavi s temi kompetencami. Glede na rezultate so najbolj obvladane kompetence, ki se nanašajo na oblikovanje in razvoj programov, sledijo strokovne kompetence ter odnosi med šolo in skupnostjo. Ta vrstni red je razviden tudi iz opravljenega ocenjevanja, kar kaže, da so bolj cenjene kot obvladane. Ena izmed ugotovitev je, da je treba okrepiti kompetence, ki niso vključene v načrte usposabljanja, vendar se štejejo za bolj potrebne in pomembne za delo v podeželskih šolah.

**Ključne besede:** podeželska šola, ozemeljska dimenzija, kompetence poučevanja, usposabljanje učiteljev

## Introduction and theoretical background

The changes that rural territories have undergone in recent decades are closely linked to the provision of public services, among which schools are fundamental. According to Eurostat (2023), based on January 1, 2021 population data, only 21% of the EU population lived in rural regions, despite the fact that predominantly rural regions accounted for almost half (45%) of the EU's area. Due to the existence of major differences in geographic, socio-economic and educational aspects between urban-rural Europe (Eurostat, 2022), there is no single concept of rural territory, although the size of the municipality continues to be the criterion most commonly employed.

From a demographic point of view, there are several criteria for considering a territory as rural. The OECD sets the limit at 150 inhabitants/km<sup>2</sup>, resulting in three categories of regions: predominantly rural, intermediate and predominantly urban. For its part, the European Commission sets the limit at 100 inhabitants/km<sup>2</sup> and, with the statistical intervention of population density, establishes three zones: high population density (equal to or greater than 500 inhabitants/km<sup>2</sup> and 50,000 inhabitants), intermediate (between 100 and 500 inhabitants/km<sup>2</sup> and a population of at least 50,000) and low population density (fewer than 100 inhabitants/km<sup>2</sup> and fewer than 50,000 inhabitants).

The relationship between the school and the rural community where it is located has been acquiring an important role in educational research (Hargreaves et al., 2020). Accordingly, the concept of rural territory is gaining other qualitative and socio-cultural factors that lend it a changing meaning in which geographic, economic, social and cultural factors play an important role. Moreover, the importance of context is gaining an interesting role in the study of the rural school, taking into account its socio-economic impact (Raggl, 2019), the need to integrate the teaching-learning process into the local context, and the school's active role in the community (Fargas-Malet & Bagley, 2021). To this end, training – both initial and ongoing – becomes a basic element for quality education in rural schools. In this regard, Carrete-Marín and Domingo-Peñafiel argue for the need for “teacher training that is not based on urbanised patterns, so as not to import a standardised and graded teaching model. Rural classrooms require a specific pedagogical model due to their organisational peculiarities” (2022, p. 70).

The school has become a key element in the struggle against depopulation, by guaranteeing the basic service provided by the school itself and linking it to other cultural services. In this scenario, many of the changes undergone by rural societies pass through the rural school and its educational community, insofar as the school is part of the state's institutional system, concentrates social diversity,

contributes to the formation of future rural social capital and, consequently, is a core element in shaping rural societies and their territory (Fundació Món Rural, 2019). In this sense, as Boix points out, “By territorial dimension we mean that the rural school is a dynamic actor in the rural community from several perspectives that complement each other: as an active member of a territorial institutional system, as a receiver of identities and emotions, as local social capital and as a shaping element in rural social construction” (Boix, 2014, p. 89). In this regard, population diversity also depends on its specific adaptation (structural, administrative, socio-educational services, etc.), as well as on a diversified definition of rural space, which is reflected as a constant in the different European regions addressed in this study, connecting school and education in various European rural contexts with their territorial dimension, as well as with their competency and training aspects.

The main research goal of the general project underpinning this work was to propose a permanent training plan and initial training proposals to meet the competency needs of rural teachers, structured into three specific objectives:

1. *To identify the competences of rural teachers to carry out their formative function as well as their competences as invigorators of the territorial aspect of the rural school.*
2. To determine the latent educational knowledge in the school and/or territory that allows the school to promote the territorial dimension.
3. To draw up the bases that guide the design of initial and permanent training plans for rural teachers and to give a public presentation of the project in each partner state.

The present paper focuses on the first of these three goals. Specifically, this objective assumes as a research problem an analysis of the competence needs of rural teachers from the point of view of the territorial dimension of education in rural contexts in regions of three different European countries.

## **Rural schools in the territories studied**

The FOPROMAR project, the partial findings of which are presented in this article, aims to provide a glimpse of some of the key challenges facing the rural context of southern European countries, and how their educational policies and school organisation are faring in the establishment of diagnoses and indications for improvement. Therefore, “it is essential to take into account this challenge in the training of teachers who will play their role in such a unique and diversified context as the rural environment” (Fundació del Món Rural, 2019, p. 27). Consequently, we have developed an analytical approach to the situation of the rural school model in the different regions and countries taking part.

## Spain

The organisation of rural schools in Spain is conditioned by an administrative structure that divides the country into 17 autonomous communities and two autonomous cities, and by the existence of a regulatory body that establishes a single education system with regional differences and similarities in its management and operation, in the hands of the autonomous communities, as well as with coordination mechanisms aimed at ensuring coherence. In addition, the importance of other lower administrative levels (province, district and municipality) in maintaining rural schools should be noted.

The existence of this single system is based on a first legislative tier in which an Organic Law sets out the basic principles, guaranteeing the order of competence of each of the autonomous communities in educational matters (Ministry of Education and Vocational Training, 2021). The recently enacted LOMLOE (Organic Law Modifying Organic Education) includes *a new look* at the subject of education in rural territories, emphasising the need for it to be the *object of a special provision* by the administrations, which must provide “the organisational means and systems necessary to meet their particular needs and guarantee equal opportunities” (Article 82.1), considering the *specific nature* of rural schools and their schooling conditions, as well as the free provision of school transportation and canteen and boarding services (Article 82.2). Furthermore, it is committed to the dignification and maintenance of rural schools in line with the Sustainable Development Goals by stating in its “Fifth Additional Provision” on “Priorities in Territorial Cooperation Programmes” the need to strengthen rural and island schools and teachers’ professional development in order to achieve Goal 4 of the 2030 Agenda.<sup>4</sup>

## Aragón

With a population of 1,326,261 (according to the official census figures of the Aragonese Institute of Statistics as of 01 January 2021, published and revised by Royal Decree 1065/2021 of 30 November 2021),<sup>5</sup> the Autonomous Community of Aragón, is a very unbalanced territory, with 50.63% of the population being concentrated in the capital, Zaragoza. The provinces of Huesca and Teruel account for 63.8% of the territory and 27.35% of the total population, thus shaping a net rural space (Spanish Network for Rural Development, 2018).

4 Due to the recent publication of the law, however, there is currently a lack of adapted regulatory development at the autonomous community level. The data provided for the communities studied are therefore earlier data that were valid at the time of the research.

5 Available at: [https://www.aragon.es/documents/20127/1909615/20211227\\_comunicado\\_cifrasoficiales.pdf/f8f35d22-oda9-3691-acb6-60d713eb8c55?t=1640607857456](https://www.aragon.es/documents/20127/1909615/20211227_comunicado_cifrasoficiales.pdf/f8f35d22-oda9-3691-acb6-60d713eb8c55?t=1640607857456)

With respect to the distribution of the population and municipalities according to the size of the municipality, the figures provided by the Municipal Register of Inhabitants of 01 January 2021 allow us to approach the reality of its irregular demographic distribution over the Aragonese territory. This is because, according to glossary of the National Institute of Statistics,<sup>6</sup> 674 of the 731 municipalities in Aragón have fewer than 2,000 inhabitants, with these municipalities accounting for a total of 210,283 inhabitants. These figures, coupled with an aging population pyramid,<sup>7</sup> give us an idea of the demographic and territorial idiosyncrasy of the Autonomous Community of Aragón.

In the area of non-university education, Aragón assumes the competences assigned in the second phase of decentralisation conducted in 1999, whereby the organisation of the rural school is governed by Royal Decree 273/1986, of 24 December 1986, on the Constitution of Rural Grouped Schools of Basic General Education (EGB in Spanish) (Official State Journal of 09 January 1987), whose general bases have not been modified by any autonomous regulation, in spite of the existence of an important rural territory. Rural Grouped Schools (CRA in Spanish) are a group of schools that unite to form a *single centre*, maintaining their basic structure and coexisting alongside incomplete and/or unitary non-grouped schools.

### *Catalonia*

The Autonomous Community of Catalonia has a total population of 7,763,362 (according to the municipal census of the National Institute of Statistics of 01 January 2021)<sup>8</sup> occupying 947 municipalities of which 593 have a population of fewer than 2,000 inhabitants, 737 do not exceed 5,000 inhabitants, 826 have fewer than 10,000 inhabitants and 43 have more than 30,000 inhabitants, accounting for 63.5% of the overall population.

The distribution of the Catalan population according to the size of the municipalities with fewer than 2,000 inhabitants reveals that 345,825 inhabitants live in areas considered small or rural according to the glossary of the National Institute of Statistics. In addition, the population density of Catalonia is 242.3 inhabitants/km<sup>2</sup>.

Catalonia was one of the first communities to assume the transfer of competences in 1981, and in 1988 published Decree 195/1988, of 27 July, on Rural School Zones (ZER in Spanish) for public primary schools (Official Journal of the Generalitat de Catalunya - DOGC of 19 August 1988).

6 Available at: <https://www.ine.es/DEFIne/?L=0>

7 Available at: <https://www.aragon.es/-/piramides-de-poblacion.-aragon>

8 Available at: <https://www.ine.es/jaxiT3/Datos.htm?t=2915>

During the 1980s, many activities were carried out regarding the rural school. They were initiated by the teachers' movement of the Rural School Secretariat (SERC in Spanish), whose organisational model takes into account the importance of the schooling context and the quality of education in villages. Following a lengthy process of discussion, the SERC teachers approved the document the School Zoning Project for Rural Schools.

The ZER model, in which a group of rural schools that maintain their autonomy as centres share an educational project, as well as travelling specialist teachers, is still in force today and coexists with some rural multigrade schools that are not grouped. It should be noted that Catalonia has a long history of innovation and research in education in general and in schools in rural contexts in particular (Tahull & Montero, 2018; Burrial, Sala, Samper & Torres-González, 2018; Ion, Díaz-Vicario & Suárez, 2021).

## France

The organisation of rural schools in France is determined by a political-administrative structure divided into regions (13) and departments (101), with the smallest administrative division being the commune (36,682).

Decisions regarding education policy are made by the Ministry of National Education, although in terms of management it is a fairly decentralised educational system.<sup>9</sup> In France, a rural school is considered to be a school located in common rural and/or mountain areas and can adopt different structures: unitary/multigrade schools, inter-municipal school groupings (RPI in French) and/or rural education networks (REE in French). This kind of specific school has some characteristics fundamentally linked to the rural exodus and the demographic decline that gave rise to the single classes mentioned above. However, this can allow for innovative pedagogy insofar as autonomy is promoted, as well as greater personalisation of education and better continuity between the different classes.

Its main limitations are the constant decrease in student numbers, the problems of access to the educational establishment and the lack of attractiveness to teachers. For this reason, the Ministry of National Education intends to provide greater supervision and funding for this type of school.

In addition, one of the aspects considered fundamental is the issue of relations between territory and education (Champollion, 2011), for which

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<sup>9</sup> For example, primary education is provided by the communes and school transportation is in the hands of the departments.

so-called Rurality Agreements<sup>10</sup> have been developed between the Ministry and the Departments in order to strengthen rural schools.

### *Aquitaine*

As part of the 2014 territorial reform, Aquitaine merged in 2016 with the bordering regions of Poitou-Charentes and Limousin, becoming New Aquitaine, comprising 12 departments. Despite the high population density of New Aquitaine (71.5 inhabitants/km<sup>2</sup>), which is due to the existence of large cities, some of the departments are considered rural and mountainous areas.<sup>11</sup> Since the 1990s, these departments have been very important in the defence of small rural schools through the creation of different associations, such as the National Federation of Rural Schools, created in 1992.

## **Portugal**

Portugal's political-administrative organisation consists of 18 continental districts and two autonomous regions, divided into 308 municipalities. In addition, the provinces (or natural regions),<sup>12</sup> although without administrative value, continue to be an important reference for most Portuguese. However, the education system offers a centralised model, without a specific regulation for rural schools, but granting a great deal of autonomy and flexibility to the centres and great importance to the municipalities. In Portugal, a rural school is characterised by being located in a rural or peri-rural area, generally small in size, sparsely populated and often isolated. The country is experiencing an exodus from rural to urban areas, where more and better quality services can be found due to the infrastructure imbalance affecting their provision in unpopulated areas. This phenomenon contributes to the desertification of the countryside, making it difficult for rural schools to remain and leading to a reduction in the population (Fundació del Món Rural, 2019, p. 38).

In spite of this, and in relation to the situation of rural schools, which are multi-grade schools with basic education students, Portugal has undergone a major process of urbanisation over the last decade, leading to the disappearance of many rural schools or the removal of the higher cycles (from ages 11 to 15) of basic education, in favour of a more efficient and higher quality system,<sup>13</sup> despite the role given to the rural school as a dynamic organisation for local and community development (Amiguiño, 2008).

10 In 2017, 40 of the planned 60 departments were covered by an agreement.

11 Creuse, Dordogne and Vienne.

12 Created through a reform in 1936, they were formally dissolved with the entry into force of the 1976 Constitution.

13 Since 2000, 4,500 schools considered isolated have been closed.



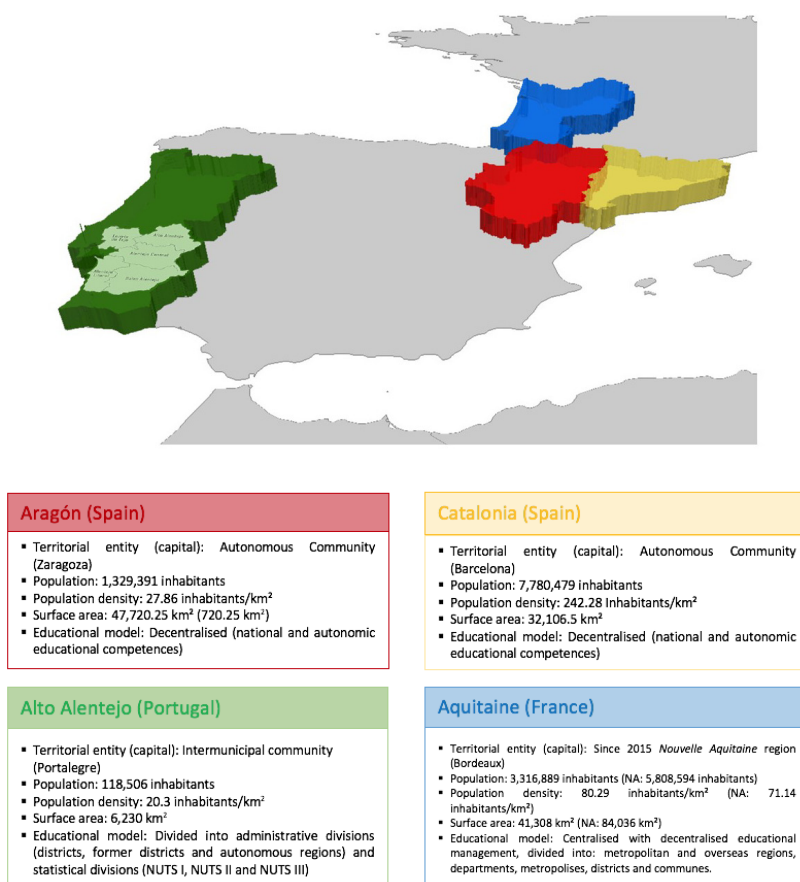
### Alto Alentejo

The former province is today an administrative entity known as an *inter-municipal unit* comprising 15 municipalities and their corresponding parishes, with a population of 104,989 inhabitants.<sup>14</sup> The existence of multi-grade schools in which students from different stages and/or cycles are grouped together is one of its basic characteristics.

Figure 1 shows the geographic location of each of the territories, expanding this information with relevant administrative, demographic and school organisation data.

**Figure 1**

*Geographical location and basic descriptive data of the territories studied*



Source: Own<sup>15</sup>

14 Figures for 2021 indicate a population loss of 11% over the last ten years.

15 The NUTS II region of Alentejo is highlighted, with a different administrative model, which includes the sub-regions of Baixo Alentejo, Alentejo Central, Alentejo Litoral and Alto Alentejo (formed within the district of Portalegre as an intermunicipal community and statistical sub-region, such as Lezíria de Tejo).

In order to establish a comparative framework between the different contexts involved in this study, Figure 2 allows us to contrast the specificities of each region in terms of their different rural spaces, their national policies towards rural areas and their rural teacher training models.

**Figure 2**

*Comparison of the specificities of rural schools in each study area*

Common contextual elements	Spanish specificities	French specificities	Portuguese specificities
<b>Rural areas are undergoing profound changes, especially economic, social, cultural and organisational changes that are opening the way to a new rurality</b>	Progressive decline in enrolment in rural schools. Low attractiveness for new teachers. Linked to accessibility problems.	Progressive decline in enrolment in rural schools. Low attractiveness for new teachers. Linked to accessibility problems.	Rural schools are on the way to disappearing. Process linked to the urbanisation of the country (4,500 school closures since 2000).
<b>National education policies to accompany changes in rural areas</b>	There is a general education framework, but with territorial adaptations for each autonomous region. Organisation according to principles of economic rationalisation, which is not always justified in pedagogical plans. In Catalonia, the problems of schools in rural areas have long been taken into account (support plan accompanied by a decentralisation policy). Definition of Rural School Zone (ZER). In Aragon, low appropriation of rural needs by the autonomous community. This situation leads to a policy of centralisation and school closures.	A national framework with common school organisations, single class, multilevel, inter-municipal pedagogical regrouping (RPI), rural education network (RER), public (RPI), public primary education services (EPEP), but with different pedagogical adaptations.	National policy oscillates between two contradictory movements: concentration of the school population in urban areas, mainly based on the logic of costs, versus the vision of the school as a key element in local development, with an important role for the teacher, who is considered an agent of this local development.
<b>Training plan arrangements for future teachers.</b>	There is the organisation of a Master's Degree in Education and Rural Development organised by the Inter-University Group of Rural Schools (GIER), which brings together public and private universities.	There is no specific training mechanism for rural school teachers. There are guidelines for bridging the digital divide, but no training mechanisms. A university pedagogical network is organised within the framework of conventions on rurality.	There is no specific training, but there are scientific articles that report experiences of participatory, more student-centred educational models.

## Towards an understanding of the concept of “teaching competences of the rural teacher”

In today’s knowledge and information society, teachers play a fundamental role in students’ learning, consisting of a complex and diverse range of knowledge and skills that enable their personal, social and professional development throughout their lives. The need to rethink the teaching task and competency-based teacher training is a fact highlighted by a wide range of studies (González & Wagenaar, 2006; OECD, 2009; COPE, 2011; Eurydice, 2012) and research (Bolívar, 2008; Perrenaud, 2008; Bernal & Teixidó, 2012; Pérez; Oliver-Trobat et al., 2015; Redecker, 2017; Tahirsylaj et al., 2021).

Based on this theoretical justification, which was obtained from a state-of-the-art review and the collaboration of reviewers and external experts, we have arrived at the following categorisation of the concept of competences:

Professionals, understood as those referring to the planning and development of teaching and educational projects that serve the rural context and that can be included in the technical and adaptation areas indicated by Flück (2001).

Design and development of curricular programmes that take into account the rural context, included in the same area (Flück, 2001).

School-community relations, which are competences of interaction with families and the local community, covering the areas of organisation and personal and social relations (Flück, 2001).

## Method

This descriptive study has a non-experimental research design based on a questionnaire survey (McMillan & Shumacher, 2011).

### *Participants*

The sample comprised 460 teachers working in schools located in rural contexts in Spain, France and Portugal. Taking into account 50% heterogeneity, a margin of error of 5% and a confidence interval of 95%, the representativeness of the sample is set at 248 teachers.

Accordingly, the distribution of the sample for each territory involved in the study is 115 (using as a reference the number of responses obtained in Aquitaine, the region with the lowest number), of which 354 are female (77.0%) and 106 male (33.0%), aged between 22 and 63 ( $M = 43.78$ ,  $SD = 8.83$ ) and with work experience in schools belonging to a rural context between 0 and 40 years ( $M = 14.82$ ,  $SD = 9.19$ ).

**Table 1**

*Participants by country in the Rural School Teacher Competences Questionnaire and distribution of the sample*

Country	Region	n = 460
Spain	Aragón	115
Spain	Catalonia	115
France	Aquitaine	115
Portugal	Alto Alentejo	115

### *Instrument*

The *Rural School Teacher Competences Questionnaire* (CC-PER in Spanish, see Appendix I) sets out 30 competences related to the performance of the territorial dimension in rural schools, grouped into three areas:

Pedagogical or professional field: 6 key competences (items 1–6) in which the teachers show their ability to adapt their personal teaching project to the characteristics and needs of the environment and to get involved and collaborate with the other teaching staff in the same school, and with other rural teachers in the area who may be related to teaching associations, in order to develop shared projects linked to the territory.

Methodological or programme design and development: 17 instrumental competences (items 7–23) in which teachers show their ability to design, manage and assess educational projects, teaching proposals and resources in which the problems and challenges of the territory and the students are integrated.

School-territory relations: 7 systemic competences (items 24–30) in which teachers show their ability to involve the members of the school community and the social and educational agents of the territory and encourage their participation in educational projects and teaching proposals.

The items of the instrument were based on European reports (European Commission, 2005, 2007; González & Wagenaar, 2006) or specific academical literature (Perrenaud, 2007, 2008). Following a preliminary process of theoretical documentation, the final selection of these competences was carried out after checking their relevance with experienced rural teachers and verifying their internal consistency both to assess their importance and the degree of mastery by the respondents ( $\alpha = 0.97$ ).

The questionnaire was previously assessed and translated into Portuguese, Spanish, Catalan and French, and consists of the following sections: 1) a brief description of the research and instructions for completing the questionnaire; 2) personal data and the context in which the teacher carries out their

teaching work; 3) list of competences related to the areas explained above; and 4) a blank section in which the surveyed teacher proposes other competences not included on the list.

### *Procedure*

The questionnaire was sent to the teachers participating in the study in an electronic format through the *Google Forms* application. To this end, the most representative educational agents and/or heads of education in each region were asked to send the questionnaire to the personal and institutional email addresses of all of the principals of the schools included in the study. In addition to answering the questionnaire, members of the management team were asked to send the questionnaire to the teachers in their school so that they could forward it to the study managers once completed.

The respondent had to use two Likert scales to rate both the relevance of each competence to rural school teacher education and the degree to which the respondent considered that they had mastered the particular competence. In both cases, the scores correspond to the following values: 1 (none), 2 (low), 3 (medium) and 4 (high).

The questionnaires were received over the course of almost one calendar year, trying to avoid the end and beginning of the school year, that is, the periods when teachers usually have greater difficulties in answering questionnaires.

### *Data analysis*

First, descriptive statistics (mean, median, standard deviation and variance) were calculated for the variables linked to the context data and for the competence ratings in terms of both relevance and degree of mastery. The difference between the mean obtained when assessing the degree of mastery of each competence highlighted in the questionnaire and the scores referring to their relevance was also calculated.

Second, in order to verify the degree to which the responses obtained for each group of competences are consistent, the internal consistency analysis (Cronbach's alpha) was also calculated.

## **Results**

The presentation of the findings consists of the following three sections: teacher profile, relevance given to the competences defined, and mastery indicated with respect to the degree of performance of these competences.

*What is the profile of the teachers who are performing the competences related to the territorial dimension?*

All of the teachers surveyed teach in a rural context, covering all educational levels: early childhood education (18.7%), primary education (73.7%) and secondary education (7.6%). The low percentage of the last stage of schooling could be explained by the fact that schools in rural contexts, with very specific exceptions, do not usually include secondary education.

The most generalised profile is that of a female teacher (77%) of middle age ( $M = 43.7$  years;  $SD \pm 8.83$ ) with some teaching experience ( $M = 14.8$  years;  $SD \pm 9.19$ ), half of which has been developed in the rural school where she is currently working ( $M = 8.81$  years;  $SD \pm 7.83$ ).

In this regard, the majority of the teachers surveyed expressed having a stable or definitive employment situation (83.9%).

*Which of the professional competences related to the territorial dimension are the most relevant?*

Generally speaking, the teachers surveyed agree in emphasising the need for rural school teachers to acquire and develop a profile of competences closely linked to the territorial aspect (Table 2). This is confirmed by the fact that the average scores for the degree of relevance of the 30 competences identified in the study range from 3.08 points to 3.64 points.

**Table 2**

*Results on the relevance of competences related to the territorial dimension*

Scope	C	M	Med	SD	Var
Pedagogical	1	3.33	3	0.73	0.54
	2	3.43	4	0.68	0.47
	3	3.34	3	0.74	0.55
	4	3.31	3	0.73	0.53
	5	<b>3.46</b>	4	0.70	0.48
	6	<b>3.46</b>	4	0.67	0.45

Scope	C	M	Med	SD	Var	
Methodological	7	3.53	4	0.65	0.42	
	8	3.54	4	0.62	0.38	
	9	3.48	4	0.69	0.47	
	10	3.50	4	0.65	0.43	
	11	3.47	4	0.67	0.44	
	12	3.46	4	0.68	0.46	
	13	3.45	4	0.68	0.47	
	14	3.53	4	0.63	0.40	
	15	3.37	4	0.77	0.59	
	16	3.42	4	0.73	0.53	
	17	<b>3.64</b>	4	0.57	0.32	
	18	3.52	4	0.66	0.43	
	19	3.28	3	0.76	0.57	
	20	3.32	3	0.76	0.57	
	21	3.28	3	0.79	0.63	
	22	3.08	3	0.85	0.73	
	23	3.22	3	0.79	0.62	
	School-Community Relations	24	3.17	3	0.84	0.71
		25	3.21	3	0.77	0.60
		26	3.27	3	0.79	0.62
		27	<b>3.43</b>	4	0.73	0.54
		28	3.31	3	0.78	0.61
		29	3.27	3	0.79	0.62
30		3.21	3	0.85	0.72	

Source: Own elaboration based on the tabulated results<sup>16</sup>

Delving more deeply into the evaluations obtained for each of the competency areas highlighted, the following observations can be made.

- *Pedagogical scope*

The confidence analysis carried out in relation to the competences in this area confirms that the responses obtained are relevant and show a high index of internal consistency ( $\alpha = 0.90$ ).

<sup>16</sup> The highest average score is shown in bold. The most outstanding results are shaded in grey.

Although all of the competences exceed 3 points on average, competences 5 and 6 are the most outstanding in terms of their relevance. These competences are related to the ability of teachers to involve their colleagues in educational projects related to the characteristics of the territory ( $M = 3.46$ ;  $SD = 0.70$ ) and to include the needs of their rural territory in the design of innovation projects ( $M = 3.46$ ;  $SD = 0.67$ ). The fact that these two competences have relatively low variance ( $\sigma^2 = 0.48$  and  $\sigma^2 = 0.45$ ) could be considered as evidence regarding the existing consensus among the teachers surveyed.

- *Methodological scope*

In the area related to professional competences of a methodological nature, the findings obtained from the confidence analysis also show that the responses referring to their relevance are very consistent ( $\alpha = 0.95$ ).

A more exhaustive examination of this area shows that the following competences were rated as most relevant (listed in order of relevance):

- C17: Use the resources offered by their rural territory (natural, material, social and cultural) ( $M = 3.64$ ;  $SD = 0.57$ ).
- C8: Develop knowledge of the cultural diversity of their rural territory ( $M = 3.54$ ;  $SD = 0.62$ ).
- C7: Raise students' awareness of the needs related to the sustainable development of their rural territory ( $M = 3.53$ ;  $SD = 0.65$ ).
- C14: Develop activities for the knowledge of local culture ( $M = 3.53$ ;  $SD = 0.63$ ).
- C18: Involve local community agents in the centre ( $M = 3.52$ ;  $SD = 0.66$ ).
- C10: Take into account previous knowledge related to the culture of their rural territory ( $M = 3.50$ ;  $SD = 0.65$ ).

As can be seen, the scores for all of these competences are higher than or equal to 3.50 points, while their variance is low ( $\sigma^2 =$  between 0.32 and 0.43). We can therefore say that there is considerable consensus among the teaching staff when it comes to assessing the relevance of these competences.

- *School-community relations*

With regard to the ability of teachers to establish meaningful links with local administrations and agents in the community, the confidence analysis also confirms that the competences that make up this systemic domain are relevant and pertinent ( $\alpha = 0.92$ ).

Although the ratings obtained in all of the competences in this area are fairly similar (with the average score ranging from 3.17 to 3.43), it should be noted that



competence 27 (Establish school-family-community participation processes and vice versa) was the highest rated ( $M = 3.43$ ). As in the previous cases, the fact that the variance has the lowest index ( $\sigma^2 = 0.54$ ) confirms the relevance of this assessment.

### *How do teachers rate their level of performance?*

When analysing the mean scores assessing the degree of mastery of the competences of the territorial dimension, the first thing that we observe is that, unlike in the previous case, the means are clearly in a lower range (Table 3).

**Table 3**

*Results on the mastery of competences related to the territorial dimension*

Scope	C	M	Med	SD	Var
Pedagogical	1	2.83	3	0.77	0.59
	2	<b>2.95</b>	3	0.76	0.58
	3	2.71	3	0.82	0.67
	4	2.56	3	0.86	0.74
	5	<b>2.84</b>	3	0.85	0.73
	6	2.78	3	0.88	0.77
Methodological	7	2.88	3	0.85	0.72
	8	2.97	3	0.78	0.61
	9	2.89	3	0.85	0.72
	10	2.93	3	0.80	0.65
	11	2.89	3	0.79	0.62
	12	2.95	3	0.80	0.64
	13	2.82	3	0.86	0.74
	14	3.02	3	0.77	0.60
	15	2.83	3	0.89	0.80
	16	2.92	3	0.85	0.72
	17	<b>3.08</b>	3	0.80	0.64
	18	2.93	3	0.86	0.74
	19	2.50	2	0.89	0.79
	20	2.70	3	0.89	0.79
21	2.67	3	0.93	0.86	
22	2.49	2	0.87	0.76	
23	2.53	3	0.87	0.75	
School-Community Relations	24	2.51	2	0.90	0.81
	25	2.57	3	0.87	0.76
	26	2.76	3	0.89	0.80
	27	<b>2.91</b>	3	0.89	0.80
	28	2.76	3	0.91	0.83
	29	2.70	3	0.90	0.80
	30	2.63	3	0.93	0.87

Source: Own elaboration based on the tabulated results.<sup>17</sup>

<sup>17</sup> The highest average score is shown in bold. The most outstanding results are shaded in grey.

- *Pedagogical scope*

In this competency domain, a significant degree of internal consistency was again observed ( $\alpha = 0.90$ ). We found that competence 5 (Involve the teaching team in projects linked to their rural territory,  $M = 2.84$ ;  $SD = 0.85$ ) was again one of the highest rated when the teachers surveyed self-assessed their level of performance. However, unlike the previous case, competence 2 (Include the cultural characteristics of its rural territory in teaching planning,  $M = 2.95$ ,  $SD = 0.76$ ) obtained the highest score.

- *Methodological scope*

With regard to the performance of the competences related to this area, the scores collected show the same consistency as that obtained when assessing their relevance ( $\alpha = 0.95$ ).

In this case, however, only two competences are observed that obtain similar scores (above 3 points) to those obtained when assessing their degree of relevance. The competences with a higher degree of mastery are:

C17: Use the resources offered by their rural territory (natural, material, social and cultural) ( $M = 3.08$ ,  $SD = 0.80$ ).

C14: Develop activities for the knowledge of local culture ( $M = 3.02$ ,  $SD = 0.77$ ).

As can be seen, competence 17 again obtains the highest score within this area of competence.

- *Community-school relations*

With regard to the competences linked to this eminently systemic area, its high degree of internal consistency ( $\alpha = 0.92$ ) should first of all be highlighted.

The highest score corresponded to the highest rated competence in terms of relevance: competence 27 (Establish school-family-community participation processes and vice versa,  $M = 2.91$ ;  $SD = 0.89$ ).

## Discussion and conclusions

Students, schools and educational communities in rural contexts require specific training and teaching material to deal with their diversity as a distinctive feature (Bustos, 2008; Boix & Buscá, 2020; Lorenzo et al., 2021; Carrete-Marín & Domingo-Peñafiel, 2022). The present study is in line with those of other researchers of the current reality of the European rural school, such as Pešikan, Antić and Ivić, in the case of the Serbian rural school. Based on

Vygotsky and Bronfenbrenner's ecological model, these authors propose seven assumptions to improve rural education and differentiate it from urban education, following from the idea that the former "has a specific model and context, and not the urban deficit model" (2020, p. 160). We consider these assumptions a sustainable agenda and a necessary change to transform our approach to rural schools. We understand that working for place-based education in Europe and local development linked to high-quality rural education and an improvement of teacher training curricula marks the way forward for the future of education policies in Europe with regard to rural schools.

There is a need for training that, as well as addressing aspects of quality teaching in general, responds to the needs and identity of the educational communities of different rural territories, and that is fully in line with the Sustainable Development Goals (SDGs) of UNESCO (Dieste et al., 2019). Specifically, these goals are related to teacher training to ensure inclusive and equitable education, aimed at promoting quality lifelong learning for all (Goal 4). Above all, they are related to the training of teachers in rural schools aimed at minimising and reducing inequalities between the members of their educational communities. In this regard, it is worth noting the importance that the teachers surveyed attribute to raising students' awareness of the sustainable development of the territory.

In addition, and based on the aims of the study presented, the findings indicate that *the competences identified are relevant, significant and organised in the areas considered in a theoretical way*. This fact is deduced from the high internal consistency indexes obtained after analysing the responses of rural teachers in all of the territories studied, thus confirming the relevance of the reference frameworks (González & Wagenaar, 2006; Domingo et al., 2012). These frameworks were taken into account in the preparation of the competences catalogue, as well as their grouping.

All of the competences are valued by rural teachers as necessary and relevant, not only as a theoretical basis of their training, but also as basic elements of their pedagogical practice, as shown by the value given to the competences related to methodological aspects. They should therefore form part of the specific training referred to above, which is in full agreement with the principles expressed by the European Commission (2005, 2007; Symeonidis, 2018) when identifying and defining the competences and processes necessary for quality teacher training enabling teachers to perform their teaching and social function in any educational context.

Adopting a more in-depth approach that takes into account the fact that most of the competences were assessed with lower scores with regard to the degree of mastery, those competences in which the assessment and the degree of

performance obtained similar scores should be prioritised in both initial and ongoing training for rural teachers. This confirms the findings of the European Commission (2007), which considers that training proposals should be adapted to the characteristics of the context, the teachers and the particular training needs.

Finally, when considering the differences between the relevance and mastery of competences, it is necessary to emphasise the need to articulate training plans that take into account the territorial aspect. This fact corroborates what was expressed in the theoretical framework of the FOPROMAR project, when considering the need to take into account the particularities of the ecosystem in which teachers perform their teaching and social function, both in training and in practice.

Thus, the training processes that are designed must be contextualised and must prioritise those areas of competence (professional, programme design and development and/or community relations) in which mastery is lower and which are valued as more necessary by the teachers themselves.

For further investigations, the quantitative data analysis of this study could be complemented with the qualitative data gathered in the case study undertaken in the second phase of this research. The case studies, which aimed to analyse good teaching practices, were performed at rural schools located in the same territories and regions as the present study. If the requirements of a certain competence domain are basic for quality teacher professionalisation (Perrenaud, 2007), the identification and selection of competences carried out in this work contribute in a specific way to the future design of strategies and training content that guarantee quality education in rural territories, so that we can count on teachers who are knowledgeable about the reality of rural schools and endowed with critical thinking that makes improvement processes possible (Abós et al., 2021).

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## Appendix I. Items of the teaching competences questionnaire related to the territorial dimension

FIELD	ITEM	COMPETENCE
<b>Pedagogical</b>	1	Consider the needs of your rural area in educational planning.
	2	Include the cultural characteristics of their rural territory in the teaching planning.
	3	Identify the training needs of the school's teaching staff in relation to their rural territory.
	4	Enable professional development actions for the school's teaching staff in relation to the training needs detected.
	5	Involve the teaching staff in projects linked to their rural territory.
	6	Include the needs of their rural territory in the design of innovation projects.
<b>Methodological</b>	7	To make students aware of the needs related to the sustainable development of their rural territory.
	8	To develop knowledge of the cultural diversity of their rural territory.
	9	To develop a critical attitude towards the values of their rural territory.
	10	To take into account previous knowledge related to the culture of their rural territory.
	11	Establish relations between previous experiences related to their rural territory and new learning
	12	Relate the content to the immediate territorial reality.
	13	Propose research situations related to the immediate rural environment.
	14	Develop activities for the knowledge of local culture.
	15	To carry out complementary activities based on the rural territory.
	16	Consider the characteristics of their rural territory in the organisation of school spaces and times.
	17	Use the resources offered by their rural territory (natural, material, social and cultural).
	18	Involve local community agents in the school.
	19	Develop curricular materials with the participation of agents from their rural area.
	20	Incorporate the use of ICT for the knowledge of the surrounding rural territory.
	21	To use ICT as an element of communication with the agents of their rural territory.
	22	Consider knowledge about local culture in the assessment of learning.
	23	To consider content related to the sustainable development of their rural territory in the assessment of learning.



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FIELD	ITEM	COMPETENCE
<b>School-Community Relations</b>	24	Involve the local community in the design, development and evaluation of the school's educational project, incorporating their expectations.
	25	Include in the school's objectives the service to the cultural development of its rural territory.
	26	To commit to socio-cultural initiatives in the community.
	27	Establish processes of school-family-community participation and vice versa.
	28	Involve the family in extracurricular activities.
	29	Involve the local community in extracurricular activities.
	30	Use the school as a cultural space for the local community.

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Source: Own elaboration based on the validation of the questionnaire.

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