



Educational Practices and Teaching Materials in Spanish Rural Schools from the Territorial Dimension

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Abstract

Rural schools have their own identity, influenced by the context in which they are immersed and their multigrade classroom structure. According to the United Nations' Sustainable Development Goals, educational institutions must ensure the preservation of the particularities of the environment by taking into account the territorial dimension as a contextual element and as social and cultural heritage. Therefore, the integration of territorial elements into educational practices, projects and didactic support materials is a relevant topic for investigation. This paper aims to identify whether rural schools have the work of the territorial dimension as a priority in their educational practices and, specifically, if the curricular didactic materials used in multigrade classrooms also contemplate this. A survey questionnaire was administered to a representative sample of 537 Spanish rural teachers, and focus groups and semi-structured interviews were conducted. The results show that, although work on the territorial dimension is considered, it is not identified as a priority. A dearth of didactic resources thinks about the rural context and has references to it, and there is a lack of collaboration with families and communities in the creation of resources. The conclusion refers to the importance of bearing in mind elements of the territorial dimension in curricular materials and improving communication networks between teachers and teacher training.

Keywords: *educational practices, rural education, rural school, teaching materials, territorial dimension*

Introduction

Rural schools have traditionally been subordinated to the urban school model, which is why educational administrations treat them as extraordinary cases despite their notable presence (Abós-Olivares et al., 2015; Blanco-Martin et al., 2020). According to the *Informe España 2020* (Blanco-Martin et al., 2020), there are around 723 clustered rural multigrade schools in Spain, with 72,923 enrolled students. However, these data are reductionist, as they do not include rural schools that do not belong to a school grouping. According to the Ministerio de Educación y Formación Profesional (2022), in nursery and primary education alone there are approximately 275,000 pupils in rural municipalities with fewer than 2,000 inhabitants.

In Spain, 85% of the territory is rural, home to 20% of the total population (Anzano-Oto et al., 2020). Traditionally, rural schooling has not been notably considered in educational policies (Abós-Olivares et al., 2021), nor in teacher training (Boix-Tomàs, 2023). Yet, it is important to consider the challenge that the diversified educational response necessary for multigrade classrooms poses for teachers (Boix-Tomàs & Bustos-Jiménez, 2014), as well as the need to attend to those elements of the environment that characterise and permeate school educational practices and projects (Abós-Olivares et al., 2021; Boix-Tomàs, 2014).

The urban-centric majority view has been critical in making the needs of rural schools invisible (Vázquez-Recio, 2008), and the conception, treatment and provision of curricular resources have been based on standardised educational criteria (Fargas-Malet & Bagley, 2022; García-Prieto et al., 2023). Over time, rural schools have continued to show an under-supply of materials compared to urban schools, and it is apparent that these are not suitable for them (González-Alba et al., 2020). It is also a function of an economic policy on education and initial teacher training that does not consider rural schools in the first instance (Boix-Tomàs, 2023; Corchón-Álvarez et al., 2013). In addition, publishers, who provide textbooks and other curricular materials (Abós-Olivares et al., 2015; García-Prieto et al., 2017), have failed to take into account the characteristics of rural schools when designing resources.

It is as if rural schools do not exist and it is not relevant for rural students, teachers and their communities to feel represented in curricular materials and the knowledge they contain. Little consideration has been given to particularities such as the organisation of multigrade classrooms or the importance of considering the specific knowledge of rural contexts and their communities. This implies the importance of reviewing the work of the territorial dimension in schools (Fundació Món Rural, 2019) and the role and training of teachers in the development of curricular materials, to ensure that teachers have knowledge of the environment and awareness for integrating it into classroom practices and materials.

Studies have reinforced that rural schools should play a dynamic role in the environment and the local community (Sepúlveda-Ruiz & Gallardo-Gil, 2011). The United Nations' Sustainable Development Goals (United Nations Department of Economic and Social Affairs, n.d.a) and the Global Goals for the 2030 Horizon (United Nations Department of Economic and Social Affairs, n.d.b) urge education systems to guarantee the peculiarities of rural contexts, rather than considering them as limiting factors or something to be excluded, and to contextualise educational practices and support resources. The United Nations Educational, Scientific and Cultural Organisation (2019) stated the importance of not discriminating against children by area of residence and of improving equity in education. A rethinking of educational practices and support resources is necessary.

The study reported here is relevant because it provides evidence on the considerations of rural teachers about the territorial dimension in classrooms and teaching materials, and highlights the needs detected. It is also significant because of the lack of research focused on curricular materials in rural schools (Carrete-Marín & Domingo-Peñafiel, 2022; Cornish & Taole, 2021).

Considering the Territorial Dimension in Rural Schools

The school forms part of an institutional system within a specific territory. It is one actor in a system that participates and interacts with different actors and agents within the community, contributes to its development, organisation and identity, and generates social and cultural capital (Boix-Tomàs, 2014). The role of the school in a territory is vital, especially in municipalities undergoing depopulation processes; if the school disappears, so does the town (Bustos-Jiménez, 2007). It is necessary to consider the needs of the surrounding territory and to promote participation and cohesion with the local community (Autti & Bæck, 2021). Projects that are carried out concerning the territory—sharing objectives and establishing relationships with the

community—will take on relevance, ultimately opening the school to the municipality and promoting the creation of networks amongst the school, the community and other agents of institutions (Fargas-Malet & Bagley, 2023). The school is an important driver of territories' social, economic and cultural development (Tomazzoli, 2020).

The concept of *territorial dimension* goes beyond the term *territory*, which is used mainly to delimit a geographical space (Champollion, 2018). It is a symbolic concept that refers to different aspects related to events, problems and challenges that describe the felt reality shared by people in a rural community. It hints that the school is an institution that influences the interactions and structures in a territory, acting as a receiver and transmitter of identities and emotions and a shaper of rural social constructions (Boix-Tomás, 2014). The school is considered to be socially alive, dynamic and responsible for working on all aspects that differentiate and identify a territory. Such aspects comprise local knowledges, valuing the environment, working together with the community, including it and the rest of the surrounding entities in the school, recognising the cultural and social heritage, and searching for and recognising rural references (Theobald, 2018).

The treatment of the territorial dimension in rural schools should take into account the following aspects:

- problems and social and educational challenges that the agents of the community consider as affecting the rural territory;
- activities organised by the school to respond to the concerns and desires of rural community members;
- the creation of networks or collaborations between schools and the institutions or local administrations to preserve or generate social capital. (Boix-Tomás, 2014; Champollion, 2018)

It is necessary to review the work done in schools, as well as the teaching materials that can contribute in some way to changes in rural territories, through the imaginary or the rootedness and appreciation of these territories by students. Apart from promoting essential curricular learning, rural schools need to promote cohesion and empowerment of their rural communities, thereby promoting educational activities closely linked to the economic, political, social and cultural needs and problems that make up their territory (Boix-Tomás, 2014). To do this, it is necessary for teachers to know and take into account the particularities, knowledges and problems of rural territories, and to consider them in curricular planning and project promotion (Abós-Olivares et al., 2021). Teachers must be trained to develop a level of awareness and competencies for this purpose (Boix & Buscà, 2020).

Pedagogical and territorial decisions and the leadership of teaching teams are important aspects to consider. These involve taking the territorial dimension into account in classroom planning and conducting school projects in conjunction with the territory and its community. This will promote quality education in rural areas and contribute to the valuation and sustainability of rural municipalities (Nordholm et al., 2021).

Successful practices demonstrate the importance of interactions between rural communities and work in multigrade classrooms. These include the incorporation of the territorial dimension and a population's attachment to its territory, and the creation of links which promote improvements in rural territories (Alpe & Barthes, 2013; Lorenzo-Lacruz & Abós-Olivares, 2021). Teachers cannot evade the responsibility of integrating the territorial dimension into educational practices and classroom projects, due to the impact and influence the school can have (Champollion, 2018). Teachers must know the territory where they will work and develop relevant professional competencies (Lorenzo-Lacruz et al., 2023).

Incorporating the Territorial Dimension into Teacher Planning: School Activities and Teaching Materials

In multigrade classrooms, the quality of teaching for all students must prevail over catering for just a few. Didactic planning and choosing teaching strategies should bear in mind the needs of all students. This implies considering different levels of competence, interests and skills, and integrating the immediate context to make learning meaningful (Abós-Olivares et al., 2014; Boix-Tomàs & Bustos-Jiménez, 2014). It is essential to encourage and prepare teachers to offer diversified and situated learning for students.

Many teachers have contributed to organising curricular content to make teachers' work easier (Montiel-Ruiz & López-Ruiz, 2023). Most of the materials, especially those produced by publishers such as textbooks, have traditionally focused on the needs of the majority, urban schools, and have been based on normative curricula and standardised by subject and school year (Boix-Tomàs, 2011; García-Prieto et al., 2017). It is necessary that such resources go through reflective, critical and deliberative processes on the part of teachers, to ensure they are appropriate to the needs of their classrooms and provide contextualised and meaningful curriculum (Restrepo et al., 2023). This allows for more effective curriculum and situated learning, and enhances the transferability of learning (Ahamat & Kamarul, 2022; Galfrascoli, 2020; Sokolowicz et al., 2016).

Learning should be contextualised, interdisciplinary, meaningful and multigrade (Abós-Olivares et al., 2021) and curricular resources must also consider these (Santos-Casaña, 2011). When a school is responsible for dealing with the territorial dimension, decontextualised and graded materials will not be the most suitable (García-Prieto et al., 2023). This is closely related to the concept of place-based education in rural schools (Smit et al., 2015). However, the idea that rural territories in different places with similar characteristics can share common learning despite distance also emerges. This aspect opens avenues for establishing common themes and resources with transferable aspects and adaptations from one territory to another.

It is important to consider that didactic materials may come from sources beyond the school: the community or the different associations or entities with which a school has contact. The co-construction of materials with families, other community members, producers of materials and pupils is possible too. It is also important to define what we are referring to in each case and to assess the relevance of teaching materials, given that they have undergone transformations over time and currently have a great variety of formats. It is necessary to assess and reflect on which agents are involved in their elaboration and what criteria teachers use to evaluate and analyse these resources (Carrete-Marín & Domingo-Peñafiel, 2022).

Despite the relevance of the territorial dimension and the need to create materials adapted to the rural environment across different curricular areas—both in physical and electronic support and with the local community (Area-Moreira et al., 2010)—there are still few research studies on teaching materials that are adapted to the reality of rural schools and their needs (Cornish & Taole, 2021; Wang et al., 2019). Our research highlights the need not only to include the territorial dimension in educational activities, but also to consider the role of the associated teaching materials.

Research Questions and Objectives

This study is based on the hypothesis that the territorial dimension should permeate educational practices in rural schools. Such practices will require specific materials that integrate the elements that define a school's local area to facilitate the learning processes carried out in multigrade classrooms. This allows us to ask the following questions:

- How is the territorial dimension taken into account in the educational practices and projects developed in rural schools?

- Do the didactic materials used by teachers in rural schools take elements of the territorial dimension into account?
- What is their main source of elaboration or who participates in them?
- Have teachers been trained to integrate the territorial dimension in curricular resources and didactic materials?

To answer these questions, four research objectives were set:

- to analyse whether teachers in rural schools take the territorial dimension into account in their educational practices and school projects;
- to find out whether teachers are familiar with materials that refer to the territory and what is the main source of such materials;
- to identify whether teachers consider the territorial dimension in the selection and design of curricular materials;
- to detect needs in the use, elaboration or adaptation of materials for the inclusion of the territorial dimension.

Method

To provide a well-founded answer to these questions, we collected quantitative and qualitative data in different phases, adopting a mixed methods approach. The design that best suited this study corresponded to a sequential explanatory design (Creswell & Creswell, 2023), describing aspects of the topic and allowing deep data analysis. This involved two complementary phases: a survey questionnaire, and semi-structured interviews and focus groups. Both were implemented after approval from the Ethics Committee of the University of Vic-Central University of Catalonia.

In the first phase, the survey questionnaire used a combination of multi-response, single response, Likert and open-ended questions. It was comprehensive, as it was part of a larger-scale research study and was designed by the research team. For the present study, questions were selected with content that refers to territorial dimension work, the incorporation of elements of local territory and culture, the type of materials used in the classroom and their provenance, teachers' knowledge of materials related to the territorial dimension, and the integration of local knowledge and the environment into materials for classroom activities.

The questionnaire was validated in terms of the format and content of the questions by expert judgement. It was piloted with rural school teachers to assess the relevance and understanding of the questions as well as to ensure the correct collection of data based on the questions asked. The questionnaire was administered online using Microsoft Forms and sent to more than 1600 rural school email addresses. Regular reminders and systematic monitoring of the receipt of responses were conducted for six months during the 2022–2023 school year. The estimated time to complete the questionnaire was approximately 45 minutes.

A representative random sample of 537 teachers from rural schools in different regions of Spain was obtained. The participants' teaching experiences and their roles in rural schools are shown in Tables 1 and 2. The data for Table 2 were collected from multiple choice questions, so the percentages were calculated from the total number of responses recorded.

In the second phase, purposive selection of teachers for interviews and focus groups was based on responders to the questionnaire who showed interest in participating in this phase. With the relevance of their answers, it was possible to perceive their link with the object of study. Their availability, experiences in rural schools and locations across regions were taken into consideration. Some teachers who did not respond to the questionnaire but who could provide relevant and complementary information, because of their experience or their practices in rural schools, were invited to participate. Finally, 10 informants were selected for interviews and 16 participated in four focus groups.

Table 1. Participants' Teaching Experience

Years as a Teacher	Number of Participants	Percentage of Participants	Years as a Rural Teacher	Number of Participants	Percentage of Participants
Up to 5 years	99	18.4	Up to 5 years	217	40.4
6–10	58	10.8	6–10	79	14.7
11–25	282	52.5	11–25	194	36.1
> 25	98	18.2	> 25	47	8.8
TOTAL	537	100	TOTAL	537	100

Table 2: Teachers' Roles and Teaching Sectors in Rural Schools

Role	Number of Responses	Percentage of Participants	Educational Level	Number of Responses	Percentage of Participants
Staff	262	37.6	Kindergarten	293	39.6
Tutor	304	43.5	Primary	436	59
Itinerant	132	18.9	Secondary	10	1.4
TOTAL	698	100	TOTAL	739	100

The script of the semi-structured interviews and focus groups was organised around areas of response: their profiles and experiences, the teaching strategies and resources used, the criteria in their review and development, the training received, and their knowledge of specific materials developed and platforms or spaces for sharing and disseminating materials. Informed consent was sought before audio-recording their responses for later transcription. The duration of the interviews and focus groups was approximately 90 minutes. All informants' opinions, comments and impressions were noted.

The quantitative data were analysed using descriptive statistics (frequency and percentages). For non-parametric variables, Chi-Square (X^2) was calculated to find significant relationships between them. The Kolmogorov-Smirnov test assessed whether the variables met the normality assumption. All statistical analyses were performed with SPSS v27 with the significance level set at $p < .05$.

The qualitative data were analysed using an inductive system of coding by categories and subcategories. Data reduction and analysis were carried out with Atlas Ti v.23. The saturation and relevance of the information and the confirmation and contrast of descriptions and interpretations of the data were compared with the results or conclusions of similar studies. This provided credibility criteria for selecting and presenting representative data. For this article, the semi-structured interviews and focus group data were examined through a descriptive and qualitative analysis of memos and field notes. Relevant quotes were selected.

Incorporating the Territorial Dimension in Multigrade Teaching, Planning and Activities

A multiple-choice question in the questionnaire asked which didactic aspects were a priority for teachers. Table 3 shows that, although contextualised and meaningful work with reality was a

priority (11.8%), the two items directly related to the territorial dimension have a low presence: integration of aspects of the territory and rural environment in the contents (9.3%), and the incorporation of family and community members in classroom projects or activities (2.7%). The latter is linked to community references, the opening of the centre to the local community and the establishment of networks. These aspects will be key to the promotion of the territorial dimension, bearing in mind the crucial role of schools in rural areas (Boix & Buscà, 2020; Fargas-Malet & Bagley, 2023).

Table 3. Didactic Priorities in Teaching and Planning

Didactic Aspects	Frequency	Percentage
Multigrade grouping/organisation	317	21.4
Orientations and follow-up of the textbook	65	4.4
Contextualised and meaningful work	175	11.8
Integration of the rural territory into the contents	175	11.8
Adaptation of the curriculum to the multigrade classroom	138	9.3
Globalised and cyclical work by themes (in spiral)	66	4.5
Different ways of presenting the information/activities	73	4.9
Different levels of complexity (contents/activities)	95	6.4
Flexibility and creativity	45	3.0
Personalisation of the learning process	129	8.7
Introduction of families/ members of the community	101	6.8
Didactic materials	40	2.7
TOTAL (multiple choice questions)	1482	100

We asked why these aspects were considered in the educational practices of multigrade classrooms (i.e., we were asking about the intentionality of rural teachers in the teaching/learning processes in multigrade classrooms). Table 4 shows that the teachers' priority was the development of key competencies ($f = 289$; 53.8%) and promoting teaching/learning situations for students from different levels or grades ($f = 204$; 38%). In the case of the territorial dimension, the data indicate that this intention was contemplated by a small percentage of respondents ($f = 26$; 4.8%). It will be necessary to see whether it is present in schools, even if it is not a priority.

In a compulsory open question, we asked more precisely about how teachers took into account the rural context of the classroom and school. The data indicate that they do not identify it as a priority in their work even though the territorial dimension is present in a significant way, and it is necessary to become more aware of it (Carrete-Marín et al., 2024).

Table 4. Pedagogical Purposes in Educational Practices

Pedagogical Purpose	Frequency	Percentage
Multigrade learnings	204	38
Academical results	11	2
Territorial dimension	26	4.8
Key competences	289	53.8
Others	7	1.3
TOTAL	537	100

Nevertheless, the qualitative data suggest that the majority more or less consciously or intentionally take the territorial dimension into account in their teaching. This illustrates that the school-territory interrelationship is regarded as a necessary and positive element to be included ($n = 537$). The qualitative analysis shows that the most frequent opinions ($f = 88$; 16.38%) highlight the organisation of outings to get to know the local environment and enhancing curricular content, including local and territorial knowledge ($f = 63$; 11.73%). In some cases, teachers even mentioned that they also used the elements of the territory as the focus or centre of interest of learning ($f = 26$; 4.84%). Moreover, the territorial dimension is present in classroom planning in terms of teaching methodology ($f = 25$; 4.65%) and choice of resources, such as the use of materials from the environment ($f = 1$; 2.79%), the participation of local community and families, and collaborations relating to activities and educational practices. This opens the school to the community and establishes networks with other entities ($f = 18$; 3.35%).

The school's openness to the environment is also taken into account through outings and participation in festivities and elements of local culture, as well as an extension of the school as a space in which to carry out activities and as an element that educates ($f = 21$; 3.91%). In contrast to these elements, the consideration of the territorial dimension in curricular teaching materials is scarcely present ($f = 3$; 0.55%). Teachers mentioned only materials such as stories or learning boxes with elements of the territory; they did not highlight whether the educational community participated in the production of these materials. Finally, the data show that there is important work in the promotion of projects from schools that try to have an impact on the development of the territory and on community projects. This corroborates the important role of promotion ($f = 16$; 2.97%).

The data reveal that there is a long way to go in the inclusion of the territorial dimension in rural schools, if it is to go beyond knowledge of the environment and efforts to contextualise learning ($f = 38$; 7.07%) to impacting on the methodology to make it meaningful and give pupils an appreciation of the territory and local values ($f = 14$; 2.60%). These aspects need to be reflected in the design and use of curricular materials.

Knowledge of Curricular Teaching Materials Related to the Territorial Dimension

Teachers were asked if they knew of any curriculum materials that took into account the rural context and were useful for adapting to their territory. The majority stated that they did not know of any ($f = 478$; 89%), compared to 11% who did know of some ($f = 59$). They referred to materials which were mainly produced by other teachers, by the rural group or by local institutions. This corroborates that respondents also found it necessary for teachers to produce the materials themselves. A considerable proportion of respondents agreed that the use of

digital platforms for teacher-to-teacher contact would be useful, not only to have a greater knowledge of existing materials and to improve their dissemination ($f = 198$; 36.9%), but also to share resources among teachers and learn about materials, from different places with similar characteristics, that could be adapted to their context ($f = 140$; 26.1%).

As shown in Table 5, the criteria that prevailed when selecting or creating resources referred to materials that encourage autonomous work ($f = 204$; 38%) and cooperative and competence-oriented work ($f = 74$; 13.8%). Regarding the selection or design of materials taking the territorial dimension into account, the data indicate a testimonial prevalence: three references to the criterion “school environment,” referring to the rural territory ($f = 3$; 0.6%), and one reference to the criterion “references to the rural environment” ($f = 1$; 0.2%). It does not seem that these materials intentionally consider the territorial dimension. Moreover, bearing in mind that teachers’ knowledge of specific materials dealing with the territorial dimension is quite low, it appears this has no significant relationship with the moment when rural teachers select or decide to create materials adapted to multigrade classrooms ($X^2 = 16.549$; $df = 10$; $p = .085$).

Table 5. Main Criteria for Selecting Teaching Materials

Criteria	Frequency	Percentage
Autonomy	204	38
Cooperation	164	30.5
Individual Learning	9	1.7
Content by levels	8	1.5
Global work	9	1.7
Key competences learning	176	23.5
Cross-disciplinary	8	1.5
School environment	3	0.6
Rural referents	1	0.2
Others	5	0.9
TOTAL	537	100

Finally, we asked about the training received for the development of resources for rural schools. The majority of teachers (87.9%; $f = 472$) stated that they had not been trained for this purpose. When added to the lack of knowledge of available resources, this can lead to difficulties in creating or adapting them or contemplating their use. This information was contrasted and complemented with the preliminary information gathered from the field notes about the interviews and focus groups. They corroborated many results of the questionnaire and revealed a lack of teacher training in considering the needs and characteristic elements of rural schools in the creation of materials to address multigrade teaching and the territorial dimension (Table 6, Excerpt A).

Table 6: Excerpts from the Interviews and Focus Groups

A. Lack of specific teaching training programs	<ul style="list-style-type: none"> • In the teaching career, there is no mention or representation of the rural school. There is no specific training in rural school, neither by the universities nor the educational administrations. (MC, interview memorandum) • The lack of capacity of teachers to attend rural schools. The problem is not the school; it is the teachers who have shortcomings and lack of training for it. (BO, interview memorandum)
B. Opening the school to the global territory	<ul style="list-style-type: none"> • They also do service-learning related to territorial issues and environmental projects. It is a UNESCO school [its purpose is to publicise] its cultural and social heritage. (JR, interview memorandum) • Sometimes we focus on the idea of including elements of the environment so that the materials and activities contemplate rurality, and sometimes what the teachers ask is to see things outside their environment because perhaps those children do not have the possibility to see it or go. (Focus group 4, memorandum)
C. Participation of students and families in the creation and use of teaching materials	<ul style="list-style-type: none"> • At school they create lapbooks [materials made by the students themselves] or they create their own games and even video games [gamifications]. The students have to make their own material and they can even make their books. (AT, interview memorandum) • He points out the importance of textbooks for the teacher, students and family as a guide for the teacher, as a consultation and specific activities for the students, for the family to have books at home [given the rural context there] and for them to be and share what the students do at school. (BO, interview memorandum)
D. Teaching materials adapted by teachers	<ul style="list-style-type: none"> • The need for curricular adaptation and restructuring by teachers regardless of the area, methodology, type of school, experience. (Memorandum, discussion group 2) • The most important thing in the school is that all the teachers create the materials. Teamwork and cooperation. (CO, interview memorandum)

Participants emphasised that as much contextualised work as possible is needed in the classroom to consider the rural reality. They recognised the need to open the school to the global territory, not only to the local one, in order to access different opportunities and realities (Table 6, Excerpt B). The data suggest the necessity to open the classroom to families and the community, as well as to work on joint projects for local development. The data also suggest the importance of considering the participation of pupils, families and the community in the development of materials, to include their own and local knowledge.

That way, pupils can recognise themselves in these materials and this will help to empower families and the community, giving value to what they can contribute and valuing local culture so that it remains (Table 6, Excerpt C). On the other hand, the majority of teachers participating in this part of the research considered that teachers have to be the ones to adapt or create

resources. This is in line with the results of the survey questionnaire. Standardised materials such as textbooks did not meet their needs (Table 6, Excerpt D).

In short, the teachers said that a restructuring of resources is needed, as well as a curricular revision to adapt to the characteristics of the rural school and to adopt aspects of the communities' heritage and culture. Teachers said that it is not possible to speak of one rural school, but of several rural schools, and that the context is only one element that establishes schools' identities. In other words, resources need to undergo critical adaptation to include what is relevant for pupils and the specific community.

As the survey questionnaire shows, teachers' lack of knowledge of materials prepared for rural schools stood out, as well as the importance of teachers knowing how to create materials for the needs of their classrooms and territory. This suggests that it would be useful to share knowledge about how to do this, as well as to promote teacher networks so that information about existing resources might be shared.

Our research demonstrates that the territorial dimension was not highlighted by teachers as a priority in their planning of schoolwork. However, it was observed that most of the participants, when asked about this, considered that they do take the territorial dimension into account in the activities they design. This was especially when their intention was to contextualise learning and promote the value of the environment and local knowledge, and to highlight the rural school as a different school model, open to the territory and its community seen as a resource (Abós-Olivares et al., 2021). To deal successfully with the territorial dimension in the classroom, it will be necessary to emphasise the role of teachers. Indeed, their knowledge of and involvement with the territory will be fundamental to placing the territorial dimension at the centre of teaching and learning processes (Boix-Tomàs, 2014; Fundació Món Rural, 2019).

This finding is closely related to other studies about the specific teaching competences that are needed for rural schools (Boix & Buscà, 2020). Teachers must know local knowledge to promote projects that will influence local development (Jiménez-Sánchez, 2020) and encourage an appreciation of natural, social, cultural, tangible and intangible heritage and the grounding of students in the territory (Boix-Tomàs, 2014). Teachers should take advantage of the opportunities offered by being in rural territory, such as strong relationships and involvement with families, the community and the environment (Fargas-Malet & Bagley, 2023). They must also accept the interdependence of community and school and be aware of the positive impact a rural school can have on the territory's development and valuation (Abós-Olivares et al., 2021).

This study suggests that, at present, rural school teachers tend to use standardised curricular materials which are based on the characteristics of urban schools. For rural schools, the teaching materials should show realistic images of the rural environment so students can identify with the environment with which they are familiar. It is also necessary to avoid idealised and negative images of rural territories (Santamaría-Luna, 2020), as these can set up unrealistic expectations or deficits. As the data have shown, in many cases the work of the territorial dimension has been reduced to outings to the environment, or is of an anecdotal nature. This aspect should be examined further, in order to provide teachers with training that allows them to become aware of the need to address the territorial dimension in rural schools and evaluate the adequacy of available resources (Fargas-Malet & Bagley, 2022). This could include reviewing the curricula used in teacher training (Abós-Olivares, 2011; Boix-Tomàs, 2023) and developing a set of pedagogical criteria to share with teachers in rural schools.

There seems to be a need to build awareness of the role that schools play in rural areas and to make sure that teachers develop appropriate understandings and competences before being expected to work there. The results point out the need to review and evaluate existing published and teacher-created resources, and to envisage successful practices through, for example, digital platforms that make it possible to reduce teacher isolation. The data also indicate that teachers

valued knowing about materials from other places with similar characteristics as this allows them to adapt materials for situated learning in their own location, as reinforced by various studies related to place-based education (Smit et al., 2015).

The data corroborate a widespread perception that teacher training programs do not take into account the specific training needs of teachers who will conduct their educational work in rural schools and areas. The apparent scant reference to rural schools in teacher training seems to link to a lack of knowledge about this educational model (Abós-Olivares, 2011). By extension, the study suggests teacher training should enable future teachers to acquire the necessary competences for rural schools. This highlights the need to change initial and in-service teacher training (Anzano-Oto et al., 2022), so that rural teachers are aware of the existence of specific materials designed for rural schools, are able to create their own resources, and can adapt materials from other rural locations.

Such training would permit rural teachers to recognise the relevance of knowledge of the local environment and the role of the rural school in territories undergoing depopulation. Additional training would enable teachers to become confident and capable in preparing appropriate teaching materials (Boix & Buscà, 2020). However, further thought is needed around this aspect, especially considering the isolation of many teachers, the lack of experience they may have in rural schools, and the potential preconceived ideas they might have about rural territories.

Conclusion

This research has highlighted that the territorial dimension is not usually considered intentionally in the teaching and learning carried out in rural classrooms, and that teachers are not always aware of specific materials that deal with the territorial dimension. It has shown that the treatment of the territorial dimension is not a priority in the creation and selection of curricular teaching resources and this links to the lack of training teachers said they received.

It is important to stress that the mixed methods design adopted for this study has brought together the analysis of results obtained in two phases, thus allowing a response to the research objectives in greater depth. This is relevant because there are few publications on the subject. Although this study is part of a broader study, we recognise limitations. For example, it will be necessary to carry out more interviews with other profiles to build a global vision of the criteria for considering specific teaching materials that incorporate the territorial dimension. It will also be necessary to analyse the teacher training that is currently being received and to consider improvements for the development of teachers' competences for teaching in rural schools.

Finally, it should be emphasised that rural schools play a fundamental role in the creation of social capital, influence the views of the population, and help to preserve the heritage of the territory to which they belong (Boix-Tomàs, 2014, 2023). The territorial dimension should be explicitly considered in the educational work of rural schools, as the data from our study show. To guarantee relevant and meaningful learning, teachers must be provided with appropriate teaching materials created for this purpose and contextualised, given that those available do not account for the reality of rural locations. Some present a distorted view and do not help students experience situated and meaningful learning (Smit et al., 2015) and do not let them feel that the learning represents themselves, their territory and their community. Therefore, it will be necessary to promote knowledge and dissemination of available resources among teachers and to establish networks to showcase successful practices from rural schools.

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