

Playing their part:

Small and Rural Schools

Research Report

A European comparative analysis based on 11 countries of
European Schoolnet's Special Interest Group "Small and Rural Schools"



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State of the art

Innovating and modernizing education in rural areas has been a shared priority throughout European countries and educational bodies (OECD 2019, 2021; UNESCO 2001). The correct approach to school reform in rural areas should not be to reproduce other social models but to adapt the framework of objectives to embrace social, economic, and cultural educational approaches that match the values of the local area. We can agree with Boix (1995) that each rural school should reflect its rural context rather than be an image of the urban school. Thus, education in small schools will not only take account of urban culture but also support its own rural identity. (Boix 1995).

Educational research on small and rural schools has highlighted recurring problems across various European countries. One of the dominant features of lower secondary schools in rural areas is the low number of students per school (Hargreaves 1996, Boix 2004, Amiguiho 2004, Alpe 2006). Other studies (Ovenden-Hope T., Passy R., 2019) describe them as isolated, suffering from remoteness, and offering lower quality education. Moreover, as the OECD report on rural regions confirms: *“Rural schools are facing, or will soon face, declining student numbers, bringing consequently smaller schools and class sizes. While small size can bring opportunities, such as a greater teacher focus for each student, many of these schools are isolated from the wider educational community and are operating under capacity. Smaller schools may also offer a more limited educational curriculum.”* (OECD, 2021, p.5).

In 2020, following the work carried out in Italy by INDIRE with the Italian national network of Small Schools (Mangione & Cannella, 2020; Mangione et al., 2021), a qualitative research process of the reconnaissance type was launched, aimed at the birth of a Special Interest Group (SIG) within European Schoolnet (EUN) dedicated to *“small and rural schools”*.

The research conducted by INDIRE identifies three main pillars as its three main observation lenses: the **local context**, **educational practices** with special reference to multi-age classrooms, and the **use of ICT**. These three pillars were included in a National Manifesto that gave birth to a national network of small and rural schools in Italy.

European Schoolnet's Special Interest Group launched a survey aimed at identifying the needs of small and rural schools. Thirteen countries participated in the survey (Sweden, Malta, France, Hungary, Spain, Serbia, Greece, Czech Republic, Croatia, Turkey, Italy, Poland, Slovakia). Only 4 surveys out of the thirteen countries responding were incomplete.

The survey investigated certain areas that relate to national policy/legislation and the extent of its impact; the presence of networks of small and rural schools; the problem and challenges the schools face; and the potential contribution each country could make to the SIG.

The questionnaire was structured around a set of open-ended questions aimed at identifying the policies introduced by the participating Ministries of Education concerning *“small and rural schools”* (*“Does your Ministry apply specific policies to small and rural schools in your country?”*), with a request to indicate the impact of any initiatives at school level and the number of schools involved (*“Please specify, if possible, the number of schools involved in such an initiative”*). In addition to the political-organisational dimension, the other important theme was to identify the collaborative dimension of a school in terms of school networks (*“Are you enrolled in a network of small and/or rural schools?”*) and the challenges that schools located in rural and isolated contexts face (*“Which challenges do you face?”*) in a number of defined areas (*“teacher training; multi-age classroom management/teaching strategies to improve cooperative distance education/strengthen the relationship between school and local administration”*).

The survey confirmed that:

- None of the countries (except Sweden) have systemic actions such as specific training activities for newly hired teachers or in-service training for teachers who work in a rural context.
- Some of the countries have activated initiatives addressed to education/schools in rural areas (France, Spain, Sweden, Poland and Italy).
- Two challenges faced by small and rural schools are (i) managing the multi-age classroom as a means of peer learning; and (ii) using ICT to overcome isolation.
- Most respondents report their interest in the Reflection Group as an opportunity to form a network to exchange teaching practices and train teachers.

Although few countries have developed initiatives to support teachers and students of small and rural schools, those countries which provided these

opportunities oriented their funding towards improving teachers and students' digital competences (Spain, France and Poland) within their national priority policies.

Many interesting issues emerged from almost all the countries involved in the survey. These include: the challenges for teacher training to improve strategies for cooperative distance education; multi-age classroom management; and strengthening the relationship between school and local administration. Sweden reported that the Ministry of Education provided teachers with the opportunity to participate in *"synchronous education, web courses and conferences and general information regarding pedagogy, organization, and technology"*.

This reports sheds light on subsequent developments in the sample countries, especially following the COVID-19 pandemic.

Thirteen countries participating in the survey: Sweden, Malta, France, Hungary, Spain, Serbia, Greece, Czech Republic, Croatia, Turkey, Italy, Poland, Slovakia.



Research on small and rural schools: Topic and tools

The international research carried out in Italy by INDIRE on small and rural schools (Mangione & Cannella, 2021; Mangione et al., 2021) has made it possible to closely observe educational contexts in which different solutions have been experimented to address issues arising from organisational and teaching forms that differ from the schemes in standard schools. Following a phenomenological-transformative approach, the research conducted over the years, based on case studies, has found that small schools echo the theme of resilience and resistance to closure found in the literature (Corbett & Tinkham, 2014).

Small schools show innovative system solutions based on structured forms of alliance between school and territory (Cannella, Chipa & Mangione, 2021). This gives rise to schools as community centres (OECD, 2020; UNESCO, 2021) in which we see services combatting school drop-out and educational poverty as well as forms of schooling in which outdoor spaces and third-party cultural spaces constitute extended classrooms for experiential learning.

The theoretical framework and the survey submitted to the 13 countries showed that small and rural schools in Europe are faced with similar problems and that these challenging scenarios can be – as in the case of the Italian schools observed in the context of the INDIRE Small Schools Movement – real drivers in changing the dominant school form of autonomy.

The information gathered in the initial survey made it possible to design a documentation protocol to delve into cases capable of framing challenges and opportunities for small and rural schools in Europe. To carry out this comparative research, EUN and INDIRE identified a group of 19 small schools from the following 11 countries: Croatia (2), Czech Republic (2), France (2), Hungary (2), Italy (2), Malta (2), Serbia (2), Spain (2),

Greece (1), Poland (1), Sweden (1), which assisted in investigating the current practice in the most isolated situations.

To further finalize this research, a case study format was designed and structured around four dimensions:

- **System Innovation**, with the aim of bringing out the forms of alliance with the various players in the education community (collaboration with the family, local authorities and the Third Sector), participation in networks between schools and the educational content emerging from these forms of collaboration (for example, in-service training projects).
- **Leadership and management**, investigated in terms of the school's vision and internal organisation through instrumental figures and organisational bodies such as quality teams, commissions, departments, multi-grade management support figures and liaison between the school's various plexuses.
- **Teaching strategies**, with a focus on didactic aspects and classroom management, including space and time and the strategies used for the management of multi-grade classes (if they exist), and the use of digital content and devices in the classroom.
- **ICT as inclusive tool** (sub-dimensions: Remote teaching, Distance learning). This dimension addresses how ICT is used in Remote Teaching and in Distance Learning.

The case study form was sent to 19 small European schools located in isolated localities and which, with respect to the four survey dimensions, were identified as significant by the Ministries of Education of the 11 European countries belonging to the EUN network. These are the following 11 countries: Croatia, Czech Republic, France, Greece, Hungary, Italy, Malta, Poland, Serbia, Spain, Sweden.

For each dimension, sub-dimensions were identified, i.e. the starting units of thematic analysis that guided the qualitative investigation of the school reports. For the System Innovation dimension, three sub-dimensions were identified (Parental Role; School Collaboration; Community Collaboration). Each sub-dimension was broken down into questions, with a total of 10 questions. The dimension of Leadership and management was broken down into three sub-dimensions (School vision; Organisation of the teaching and working team; Organisation and management of the plexuses) and related questions, totalling 8 questions. The Teaching Strategies dimension was broken down into four sub-dimensions with a total of 6 questions (Space and time organisation, Classroom

Management, Digital Content & Curricula, Assessment), while the ICT as inclusive tool dimension into two sub-dimensions (Remote teaching, Distance learning) accompanied by 6 questions.

Each European school involved in the sample completed the documentation sheet supervised by the head teacher and a contact person identified by him/her. Both then took part in a semi-structured remote video-interview, aimed at delving into those sub-dimensions that emerged from the documentation sheet as needing in-depth study, either because they were unclear or because they were significant and therefore needed to be examined in greater detail. On the basis of the documentation form and the video interview, a report was produced for each school institution with the aim of highlighting organisational and system solutions capable of innovating the fundamentals of the standard school.



Analysis of the phenomenon

Investigation work based on the analysis of the phenomena made it possible to return the first reports for individual educational cases (in the form of monographs), by means of a collection of narrative cards and semi-structured video interviews with teachers and school leaders of the selected schools. The reports of 24 small European schools have been analysed (see Table 1).

To complete the final reports, INDIRE researchers worked with a heuristic view, exercising an *epoché* with respect to previous knowledge and related only to the

Italian context (Mortari, 2010). The content analysis was carried out based on some of the survey dimensions in the narrative sheets.

Starting from the monographs, and using a qualitative text analysis method, INDIRE researchers worked on a restricted and selected sample. This analysis made it possible to obtain exemplary knowledge to support and guide interventions during the survey.

Table 1. Sample of small European schools that took part in the research

Country	Small/rural school #1	Small/rural school #2
Croatia	Osnovna škola Tordinci	Osnovna Škola Braće Radić, Bračević
Malta	Gozo College Ta' Sannat Primary and Special Unit	Zebbug Primary School
Italy	I.O. Bobbio	I.C. del Vergante, Inverio
France	Frenay-d'Oisans	La Balme school – Rencurel
Spain	CEIP Encarnación Ruiz Porras	CEIP Doña Mencía de Velasco
Greece	Primary School of Konitsa	–
Hungary	Egri Kemény Ferenc Sports Primary School	Nagyiván Primary School of Kossuth Lajos Secondary Grammar School
Poland	Publiczna Szkoła Podstawowa w Jełowej	–
Serbia	Mladost Primary School	Petro Kuzmjak school
Sweden	Lycksele School	–
Czech Republic	ZŠ a MŠ Luková	Primary school in Pímda

Content analysis is a technique used to make valid and replicable inferences about the meaning of texts, images or other signifiers that are grouped into categories. As for the research presented here, such inferences were based on a top-down approach, where the units of analysis are defined a priori, in order to then examine the material and define a valid codebook enabling a replicable coding of the material into content categories, on which the appropriate analyses can then be carried out. The research work was characterised by three macro-phases.

STEP 1:

With reference to the Leadership and Management dimension, the starting units of analysis were:

- School vision;
- Organisation of the teaching and work team;
- Organisation and management of several plexuses of the same school.

With reference to the System Innovation dimension, the starting units of analysis were:

- Collaboration with families and parents' associations;
- Collaboration between schools/school networks ;
- Collaboration with the local community.

With reference to the Teaching Practices dimension, the starting units of analysis were:

- Space and time organisation ;
- Classroom management.

With reference to the ICT as inclusive tool dimension, the starting units of analysis were:

- Remote teaching;
- Distance learning.

STEP 2:

In this step, the codes identified were organized and grouped into more general themes. With reference to the theories of Schilling (2006), INDIRE researchers worked by reformulating the categories or subsuming the old ones into larger classes. It was useful to name the texts each time within the most abstract category among those surveyed, until the coding becomes so generic as to be saturated.

STEP 3:

Finally, the themes and their related codes were used to create the codebook (i.e. the set of codes and their related definitions). *"The existence of such a tool is a necessary requirement for a content analysis based on human coding to be reliable."* (Lucidi et al., 2008, p. 97). The codebook can be understood as a manual in which the assignment criteria of texts to categories are explained (Neuendorf, 2002). The codebook contains at least four elements: the theme, the explanation of the category (code), the definition (to clarify the meaning of the category in the context of the qualitative analysis carried out, indicating its fundamental and distinctive characteristics), and examples of texts that are, in some way, the prototypes of the category itself.



The thematic dimensions observed

In the following section, some of the thematic codes that emerged for each theme identified for the various units of analysis are reported and discussed. The codebook (or coding system) produced in this first research phase on 10 European small school

experiences provides the educational and scientific community with a faithful and in-depth understanding of the practices being implemented in the international context.

Dimension 1. Leadership and management

Leadership and management in small rural schools: Overview

Many studies have recognized leadership as a key factor affecting the effectiveness and innovativeness of educational institutions (Bezzina & Paletta, 2022; Hargreaves & Fullan, 2012; Leithwood et al. 2017; Leithwood, Harris & Hopkins, 2008;) and have shown a correlation between headteacher leadership and students' learning.

In schools where teachers are actively involved in the decision-making process (Leithwood, Jantsi & Steinbach 1999; Paletta 2020a), there is an increase in students' motivation and their sense of self-efficacy.

Kools and Stoll (2016) propose a framework of the school as a learning organization in which distributed leadership constitutes one of the elements that supports the growth of the institution aimed at continuous improvement in processes (teaching and organisational) and in outcomes in terms of quality and equity (Benadusi & Giancola, 2022).

From this perspective, the process of defining the vision of the school contributes to strengthening distributed leadership: when the contents and values of the vision are shared among the community, the school can inspire the behaviour of students, teachers and even families (OECD, 2013).

Dimensions and sub-dimensions of analysis

The dimension "*Leadership and management*" is divided into three specific sub-dimensions, units of analysis that guided the content analysis process: **School vision**, **Team teaching and teamwork**, and **Organization and management of buildings**.

Each sub-dimension was divided into stimulus-questions that guided the schools identified by the Ministries of Education (MoE) in filling in the documentation sheet

and answering the interview questions planned for the headmasters and teachers in order to deepen the contents of the documentation sheets.

DEFINITION: SCHOOL VISION

The definition relates to the presence of an educational vision: what does the school represent or want to represent for its community? What goals does it want

to strive towards? What values does it want to commit itself to transmitting? The educational vision inspires: **(1)** teaching practices, **(2)** behaviours and relationships between people, and **(3)** the design of educational spaces and settings.

DEFINITION: TEAM TEACHING AND TEAMWORK

All arrangements and forms of organization and collaboration of teachers in the planning and delivery of educational offerings in small schools. The term also relates to the attribution of responsibilities and opportunities for professional development.

DEFINITION: ORGANIZATION AND MANAGEMENT OF THE SCHOOL BUILDINGS

All arrangements for effective organizational practice across different satellite school buildings. The focus is typically on the day-to-day functioning of the organization and giving primary attention to consistent teaching approaches in the different buildings and how to tackle different issues that a school leader may face.

Table 2. Questions related to the dimension leadership and management

Dimension	Subdimensions	Questions
Leadership and management	School vision	Q1. Does the school have an educational vision?
	Team teaching and teamwork	Q1. How is the school organized in terms of the team of teachers?
	Organization and management of the buildings	Q1. Does the school have many buildings in the same area? Q2. How do you manage the general organization?

Codes collected

The reading of the answers against the sub-dimensions defined a priori made it possible to build a **codebook**. The codebook is the result of a two-phase negotiation process among researchers. In the first phase, each researcher has read the texts independently and identified emerging conceptual categories ("codes") to add to those identified a priori. Any disagreements and differences in interpretations were resolved through a process of discussion/negotiation. During the second phase, the codes identified were organized and clustered into more comprehensive themes through a fresh process of discussion/negotiation.

This negotiation process has guaranteed the reliability of the codebook: "The existence of such a tool is a necessary requirement for a content analysis based on human coding to be reliable." (Lucidi et al., 2008, p. 97).

The interpretation of the responses within pre-defined units of analysis made it possible to compose a viable codebook that enables a replicable coding of materials into content categories, on which subsequent analyses can be carried out as appropriate.



Table 3. Codebook by theme and category

Themes	Sub-Codes	Brief definition
School vision	Caring and differentiation	Taking care of each individual as a whole, develop each student's potential, so that no-one is left behind. Differentiated and personalised learning is implemented.
	School for life	Prepare students for futures scenarios, design curricula around 21st century skills.
	Community school	A school with a strong network of alliances so as to strengthen the sense of belonging to the community around.
	School as a pleasant place to live	The school as a nice and comfortable place to learn and stay, where positive relationships find a place. Students must be happy to go and stay.
	Digital school	Digital contents and digital technologies accessible. Active pedagogies. The goal is to provide high quality education and not to deprive students of technologies available in schools located in urban areas.
	Eco-school	Encouraging the environmental awareness of students and of the community and implementing sustainable actions.
Team teaching and teamwork	Guidance	Groups of teachers arranged by the school in support of improvement or functional processes, the mentoring of colleagues and teaching guidance.
	Teacher teams	Working groups that are formalized by the institution for supervision and guidance with respect to specific disciplinary fields for which exchange of practices and models of work or supervision on the quality of the curriculum are also required.
	Management of responsibilities	organized forms of assigning specific roles and responsibilities within the school.
	Professional development	Procedures envisaged at ministerial or school level for refresher courses and professional development of teachers in service.
	Distributed teacher	Forms identified by the schools which allow disciplinary teachers to distribute the total number of hours and guarantee access to the training offer by even the most isolated classes.
	Complementary teacher	Forms identified by schools for identifying and planning support teachers for didactic enhancement or personalization actions in multi-level groups.
Organization and management of buildings	Satellite school buildings	School buildings that are decentralised from main central school. Satellite school building depends administratively on the main building located in an urban area.
	Cultural isolation	Due to the distance from the urban area the schools located in rural locations are very far from library, cinema, theatre or other cultural services.
	Management of school building	The main school building needs to manage all the connections with the satellite school building in term of transportation, facilities.

In the following section the codes extracted from the analysis will be examined within each sub-dimension with close consideration given to their interpretation (clarifying the meaning of a category within the scope of the qualitative analysis undertaken, showing

its fundamental and distinctive features) and with examples of texts that were identified as prototypes of the category itself and which, because they recur in all countries, serve to substantiate its meaning.

Codes, definitions and European practices

This section reports and discusses some of the thematic codes that emerged for the units of analysis identified above.

THEME: SCHOOL VISION

European small and rural schools have developed clear and articulated educational visions. As confirmed by research, the presence of a clear vision can inspire the behaviour of students, teachers and even families. Most of the visions focus on the concept of *caring and differentiation*. The majority of the schools have as a main goal to ensure students' equal opportunities and respecting everyone's potential so that no-one is left behind.

In these visions, the idea of taking care is exemplified in the attention paid:

- To developing each individual as a whole, embracing not only cognitive, but also physical, social, emotional and moral dimensions;
- To the weakest and most fragile students, as well as to the needs of the community through solidarity actions;
- To students with special needs, developing didactical tools and environments suitable for everyone;
- To differentiated teaching practice tailored to meet individual needs.

The most important educational target of a primary school is taking care of integrated biological, cognitive, emotional, social and moral development.

• POLAND, OPOLE •

The vision of the school is to be a "caring school": no child is left behind. The school welcomes a lot of foreign students and takes care of students with special needs, especially learners with dyslexia (the school has the friendly dyslexia quality mark). The teaching strategies used for Dyslexic learners are applied to all other students too. Teachers use differentiated strategies to deal with this complexity.

• MALTA, ZEBBUG •

Some "caring and differentiation visions" place emphasis on the concept of solidarity:

The school's vision focuses on humanity and solidarity, which they foster in everyday activities and especially in their many humanitarian activities such as Mary's Meals, the Christmas fair, and donations to Croatian Caritas, the Croatian Red Cross, and social supermarkets. The school encourages environmental activities, internationalisation, entrepreneurship, and digitalisation. All these aspects are expressed and fostered through the curriculum and the school's activities.

• CROATIA, TORDINCI •

Some others to inclusion:

An important value is that everyone is different. This is achieved not only through the curriculum but also through the "hidden" curriculum based on what the students experience on a daily basis in their classrooms and living under the same roof with the students of the Special Units.

• MALTA, TA SANNAT •

The educational project of the school is designed with an axis of inclusion, to alleviate any inequalities.

• GREECE, KONITSA •

Some, finally, to differentiated instruction:

The pedagogical vision of the school rests on educational differentiation. [...] To respond to differentiation, the school has adopted the "swapping" model. For the last 15 years, the teachers have been swapping levels every year: one year "cycle 2" (the first three years of Primary school) and the other year "cycle 3" (the final two years of primary school and the first year of Lower Secondary school).

• FRANCE, FRENEY D'OISANS •

The second most reported type of school vision is that of the **school for life**: in these schools, the main goal is to prepare students for an uncertain future, for

a complex and constantly changing world, and for knowledge and skills that cannot yet be predicted. All the schools mention the 21st century skills as their guiding competence framework for their educational planning¹.

Prepare students for the life they want to live, regardless of whether they decide to continue their studies at university or enter the world of work and to have the necessary skills to continue learning throughout their life (Swedish schools allow adults to return to high school to study even if they have already obtained a diploma) or change the course of their life if they think they made the wrong decision.

•SWEDEN, LYCKSELE•

The school vision is to give all children an education, regardless of their abilities or health status so they can apply their best abilities to practical life and further their education. The school education programme is called "I can handle it". The motto is a Seneca quote, "We're not learning for school, we're learning for life." In the school, they believe that learning is something you do all the time – learning is an activity that can be done anywhere, anytime, and not just in the classroom.

•CZECH REPUBLIC, LUKOVA•

The school's vision is to prepare the pupils for their future lives. The school does its best to develop the 21st century skills (critical thinking, creativity, collaboration, communication, information literacy, media literacy, technology literacy, flexibility, leadership, initiative, productivity, social skills) that pupils need to be successful. The school also puts emphasis on developing digital competences and sustainable development.

•CZECH REPUBLIC, PRIMDA•

MECD-British Council is at the basis of their school vision. English is not a foreign language but as literacy. We tend to do different kind of projects and we try to be as coordinated as possible among all subject teachers.

•SPAIN, CEIP MENCIA VELASCO•

Many schools, and Italian and Maltese schools in particular, share a vision of developing strong alliances with the community around. The thematic code for this is **community school**: creating a network of alliances helps to realize a rich learning environment and to strengthen the sense of belonging to the community:

We are a continuously evolving educational community, an archipelago of territorial and international relations, a place of inclusion and cooperation in which the individual, who is at the centre of educational action, becomes a European citizen: aware, capable of active participation, attentive to legality and sustainability, able to face the challenges of a complex and constantly changing world, because he has learned to learn.

•ITALY, BOBBIO•

The education system's educational vision involves the development and expansion of the sense of belonging to the educational community by school staff, pupils and parents. The education system aims to develop relationships with local institutions and local educational agencies.

•ITALY, INVORIO•

The vision of the school can be summed up in "school as a building community": the school is conceived as a system in which everyone learns from each other (students, teachers, school, community.

•MALTA, TA SANNAT•

Three other visions are common to European small and rural schools: **(1) schools as pleasant places to live**; **(2) digital schools**; **(3) eco schools**. As to the first of these, schools are committed to offer comfortable

¹ The twelve 21st Century skills are: Critical thinking, Creativity, Collaboration, Communication, Information literacy, Media literacy, Technology literacy, Flexibility, Leadership, Initiative, Productivity, Social skills.

environments for the educational community, with furnishings designed to be functional for educational activities and promote positive relations among people.

The school vision is based on the idea that the School should be "a pleasant place to work and to be at, a place from which a happy and educated pupil will emerge, ready to face life challenges and to further his/her education".

•CROATIA, BRAĆE RADIĆA•

The pedagogical vision of the school can be summarized in the following sentence "Children must be actors of their own learning, they must be willing to learn."

•FRANCE, LA BALME•

Schools must be also well equipped in technologies. To sustain small and rural schools and combat isolation, technologies must be accessible also in deprived areas. Furthermore, technologies alone are not sufficient: they must be implemented with active teaching methodologies.

The school has the vision to present itself as a modern institution which uses active teaching methodologies, digital content and ICT and which is ready to introduce modern approaches and creative ideas.

•SERBIA, MLADOST•

Guided by this educational vision, the school has been equipped with all new technological means for the highest quality education so that the pupils would not be deprived of educational technologies that are more accessible to students in urban areas.

•CROATIA, BRAĆE RADIĆA•

Schools also recognize the growing need for people to improve and develop their knowledge of sustainable behaviours. School can also share a vision of encouraging the environmental awareness in the community so as to prioritize the needs of all life forms and of the planet:

The school encourages environmental activities, internationalisation, entrepreneurship, and digitalisation. [...] Environmental awareness is very important to the school and is visible in the eco-activities such as collecting old paper for recycling, collecting electric waste, and caring for their school environment. Because of all their efforts, the school has been awarded the golden status of International Eco School.

•CROATIA, TORDINCI•

THEME: TEAM TEACHING AND TEAMWORK

The schools surveyed have reported different forms of **team organization and the attribution of roles and responsibilities**.

In small schools there are groups of **pedagogical guides** who support the organization and implementation of the curriculum, as well as **teaching assistants** for children with difficulties whose role is that of mediator and consultant able to dialogue with families and teachers. In some cases school coordinators provide pedagogical guidance, supervise and coordinate the adequate implementation of the curriculum, organize seminars/workshops, responsible for the development and improvement of the education curriculum, provide an update on the latest educational reforms and policy developments

All the teachers (13), after-school assistants (3) and teaching assistants (5) make up one team that works together. Teachers and teaching assistants work together in lessons. The teaching assistants help pupils with special needs, and all pupils who need their help (other weak pupils) and do extra classes in the afternoon. Pupils benefit from this cooperation.

•CZECH REPUBLIC, PRIMDA•

We are constantly exchanging information. We try to help each other with our experiences and advice. We can count on each other in all areas.

•HUNGARY, NAGIYVAN•

There is one teacher for primary years (years 1 to 6), two nursery assistants and learning support assistants.

•MALTA, ZEBBUG•

The counsellor deals with learning disabilities, conducts workshops with students, talks to parents, supports many other school activities and the curriculum, and talks with teachers on how to improve. The counsellor works closely with the principal.

•CROATIA, TORDINCI•

Schools report how the **organization of teachers into teams** provides support for specific grades and school levels as well as disciplinary cooperation and the exchange of good practice. Teams also intervene regarding the needs of teachers by proposing professional development paths and, where there are teams dedicated to quality, guidelines for better implementation of the curriculum.

Teachers are divided into two working groups: a working group of primary school teaching staff and a group of nursery school teaching staff, with intensive cooperation between the groups.

•CZECH REPUBLIC, LUKOVA•

The 18 teachers are organized in subject-based teams (e.g. a team for languages, sciences, etc.). Teacher teams can cooperate with the same teams from other schools, support each other, exchange good practices and organize some extracurricular activities together.

•SERBIA, MLADOST•

Depending on the needs of the school or innovations and while planning the path of professional development, teachers may apply for co-financing of selected forms of professional development.

•POLAND, OPOLE•

A Quality Team has been formed within the school, which at the end of each school year evaluates the implementation of the School Curriculum and the School's Annual Plan and Program and the results achieved. On the basis of what has been established, the Quality Team provides the guidelines for drafting next year's documents. Members of our quality teams are some of our teachers (one representative from each subject group), professional colleagues from our school, the principal and one member acting outside the school (usually a parent).

•CROATIA, BRACEVIC•

Team organization often includes the **assignment of specific responsibilities** (e.g. contact person for online environments or for dispersed/satellite buildings), who become part of the decision-making processes and the school management group. Special committees set up at the beginning of the school year can guide the growth of the school on strategic issues and provide a focus for identifying opportunities for the professional development for teachers.

Each deputy has the following duty and responsibility: one of them supervises the education documents for the subjects, for example. Another creates online platforms and helps students who need help. The third deputy deals with problems with the building or the electric system etc.

•HUNGARY, NAGYIVAN•

The school management involves the head teacher, the deputy head teachers, the head of the branch school and the team leaders. They make decisions, express opinions, and put forward proposals.

•HUNGARY, EGRI KEMENY•

At the beginning of the year, some faculty commissions are established to organize and support the growth of the school. The commissions for this year are: European Group and Foreign Languages,- Innovative Library, Educational Plan Management, Digital Innovation, Self-Assessment, 3-6, Vertical Curriculum, Covid, Orientation, Documentation, Relations with the territory. From 6 to 20 teachers periodically work as a team in each of these commissions.

•ITALY, BOBBIO•

This attention given to professional development leads schools to organize themselves to access different **training opportunities**. In addition to internal initiatives organized by the school, teachers can in some cases benefit from funding for external courses, which in some cases may require some form of co-financing. The coordination of in-service teacher training may be at central ministerial level and mandatory for teachers to exercise their profession.

Teachers do not have financial incentives to teach at this school but they have the opportunity to participate in various training activities, including in other parts of Sweden, which are reimbursed by the school.

•SWEDEN, LYCKSELE•

Depending on the needs of the school or innovations and while planning the path of professional development, teachers may apply for co-financing of selected forms of professional development.

•POLAND, OPOLE•

Teachers from both buildings meet in the main school building for meetings – teacher training courses. Training initiatives usually come from within the school. The teachers agree to share knowledge about the things they have learned.

•CROATIA, TORDINCI•

Teacher training is only at a national level, organized by the Ministry of Education and the Institute for Improvement on education. Teachers have to reach some points in order to fulfil the national requirements laid down for in-service training.

•SERBIA, MLADOST•

In isolated geographical areas, teachers' working hours may be organized so as to be able to work in the most distant locations. In some cases, the possibility for teachers to rotate between various locations and classes has been formalized through **swapping models** or by prefiguring groups of **peripatetic teachers** specialized in certain disciplines.

To complete the contract, most of the teachers (not those that work with kids of age under 11) have classes in other schools of the surroundings too. This represents a big issue for organizing the timetable and sometimes for extracurricular activities.

•SERBIA, MLADOST•

It is the teachers who have decided in this way (SWAPPING MODEL) to avoid that the students go through the whole course with a single teacher (also because the children can be good or bad with that teacher) and to give the teachers the opportunity to change, avoiding always focusing on the same theme or level.

•FRANCE, FRENEY D'OISANS•

The Peripatetic Teachers Group is organized by Gozo College according to an annual plan defined at the beginning of the school year. They can spend 1 or 2 days in each of the 11 schools, depending on the number of classes. They have a strategic function: they are specialized teachers (arts, theatre, music, physical education, science) and they can also spread new practices and ideas among the 11 schools that make up the network.

•MALTA, TA' SANNAT•

In some regions there are also **complementary teachers**, often local professionals, who enrich the curriculum at various levels, including **multi-level classes** that can require periods of differentiation and remediation.

There is only one teacher in the school, but since it is a kindergarten class, the teacher is accompanied by a specialized territorial agent for kindergartens (ATSEM), hired by the municipality, and almost always by a class assistant (AVS).

•FRANCE, ECOLE LA BALME•

Students in Malta do not repeat the same grade if they fail. They need to go to the next level. As a result, classes tend to have students with different abilities and teachers have to teach students with different levels of knowledge in the classroom. There is a teacher for the complementary service – with which the students behind can do extra work to match the standards of the rest of the class.

•MALTA, ZEBBUG•

THEME: ORGANIZATION AND MANAGEMENT OF BUILDINGS

All over Europe, small and rural schools are affected by school size and by the sparse buildings which in many cases are located very far from the main cities or very far from each other. Almost none of the countries investigated has **special legislation to support small and rural schools** in solving these issues. They, nevertheless, have to comply with the exigencies of their national educational systems.

The school operates in a standard work system like every school in Poland – according to the present law.

•POLAND, OPOLE•

The management of the school building(s) is a major topic for those interviewed for this report. Many of the schools manage one **satellite school building or one main school building** associated with some satellite school buildings nearby the school.

The school has a main building in Tordinci and a smaller building in Antin, which is about 4 km away.

•CROATIA, TORDINCI•

The school is organised through classes in the basic school in Tordinci and the satellite school in Antin. In the basic school there are 83 students from Tordinci, Mlaka Antinska and Korog and students from Antin in classes 5-8. The school bus is organised for students from Korog, Antin and Mlaka Antinska. The satellite school has only 20 students in all four classes.

•CROATIA, TORDINCI•

The use of satellite school buildings requires the school's leader to cope with different issues related to school timetable and transportation.

Due to the spatial dispersion of our pupils' homes, they are transported to school by school bus, which requires meticulous organisation of transport. This is why each school starts and finishes at different times.

•CROATIA, TORDINCI•

Due to three different locations and only one school bus, each school has customised timetables so that the school bus can take pupils to school and take them home after class without any delays. The schools tell the bus the routes to transport the students.

•CROATIA, TORDINCI•

Dispersed school buildings have impacts on the educational offer and facilities (e.g. availability of digital devices, spaces for lab or library, etc..) which might have to be quite different from building to building.

The school, having to cope with a large number of classrooms and not being able to multiply the number of disciplinary laboratories, has decided to set up multi-purpose laboratories that can therefore be used in different ways, with minor adaptations. Multi-purpose labs as well as libraries become training rooms or spaces where different activities can be carried out.

•ITALY, BOBBIO•

One of the best-known issues faced by small and rural schools is the risk of **cultural isolation and low achievement rates**. This phenomenon is quite common among rural schools and its solution depends on many aspects related to the local administration. Due to their

isolated location, teachers and students are farther away from cultural centres such as libraries, museums, theatres, sports centres and the like than their urban counterparts. (Alpe, 2006).

This school is the only upper secondary school within a 50 km radius.

•SWEDEN, LYCKSELE•

In our village, there is only one primary school. In the nearby villages, there are state-funded and church-funded schools. Our school is the only one in a 50km radius.

•HUNGARY, NAGYIVAN•

The school library is the information centre of the school. Students can borrow books for their required reading, read magazines, spend free time between classes and participate in numerous workshops.

•CROATIA, TORDINCI•

The distance between the main school and the urban centre obliges many small schools to have multi-age classrooms. In terms of the low achievement rates the students obtain, some researchers claim there are

not enough studies to demonstrate that these schools have lower quality teaching and poor test results (Hargreaves, 1997).

The main school also has a building in Novaj (a neighbouring village to Ostoros) with pupils in grades one to four and one multi-age class.

•HUNGARY – EGRI KEMÉNY FERENC•

A further key issue a school leader has to face in a small school is **school building management**. Due to the very low number of students enrolled and dispersed across various buildings, each school may not be equipped with digital devices or teaching tools of the same standard, and in many cases the building needs refurbishing.

The school building has 13 ordinary classrooms, one common room and one gym. Three classrooms are located on the first level and seven on the second level (there are two seventh grade classes and two eighth grade classes).

•POLAND, OPOLE•

The classroom is very small, between 49–59 square metres.

•POLAND, OPOLE•

Reflection

Small European schools distinguish themselves by a school vision aimed at guaranteeing equal opportunities and access to training courses for all, even for the most isolated students. This vision entails the need to intervene through effective forms of managing the particular groups being taught: this includes, on the one hand, monitoring the quality of

the courses and the skills of the teachers and, on the other hand, identifying highly innovative solutions (such as peripatetic teachers) which guarantee all classes due access to the curriculum. The distance of various teaching locations from the central establishment also requires school managers to secure equitable access to technologies and digital solutions.

Dimension 2.

System Innovation: Alliances for innovation in the school system

Alliances in small rural schools: Overview

Much of the research on small schools in Europe includes a focus on *locality in context* (which is the importance of context including education policy and school closures), and on *school-community relationships*. These bodies of work (see for example Malet Fargas & Bagley, 2021 and Gristy et al, 2020) may be useful in informing EU developments. Networks of schools offer a strategy to optimize the use of time and resources, to support the development of teachers' professional skills (Tantarimaki S., Torhonen A., 2020) and ultimately to prevent school closure. Alliances among schools and the institutions around them (municipalities, third sector, families) help to share responsibilities and create synergies, support decision-making, and promote knowledge-sharing and the dissemination of practices (European Commission ET Working Group Schools, 2018).

INDIRE research evidence collected within the National Network of Small Schools (Mangione et al, 2021; Mangione & Cannella, 2021), using a phenomenological-transformative approach based on case studies, shows that small schools in Italy maintain strong alliances with local authorities and cultural associations. These alliances allow the school to go beyond the traditional form of the school (Maulini, Perrenaud, 2005) towards a *future scenario of learning hub* (OECD, 2020). Learning hubs are integrated learning environments (De Bartolomeis, 1983; Frabboni, 1989) where trust and a sense of belongingness to the local area is strengthened, with multi-agency partnerships (teams of teachers and experts who work together) being a valuable tool for teachers' professional development (Mangione, Cannella, Chipa, 2022).

Dimensions and sub-dimensions of analysis

The "System Innovation" dimension is divided into three specific sub-dimensions, units of analysis that guided the content analysis process: **Parents' role**, **Collaboration with the families**, and **Collaboration with the local community** (Municipalities and Third Sector).

Each of these three sub-dimensions was divided into stimulus-questions that guided the schools identified by the Ministries of Education (MoE) in filling in the documentation sheet and answering the questions in the interviews of headmasters which the teachers planned in order to deepen the content of the documentation sheets.

DEFINITION: PARENTS' ROLE

Parents' role is concerned with the degree of participation of families in the life of the schools and how they are involved: if they support teachers in teaching activities, if this participation occurs as part

of the curricular timetable or in an extracurricular way; if participation is limited to helping the school in organizing events or fundraising; if families are structurally involved in a formally established association/league. Regular meetings between teachers and families to discuss students' academic progress do not fall under this heading.

DEFINITION: COLLABORATION BETWEEN SCHOOLS

This refers to the participation of schools in networks of schools, whether they are local, national or international, what topics they concern, if the associations are formally constituted, and what effects they have on teaching activities or on teachers' professional development.

DEFINITION: COLLABORATION WITH LOCAL COMMUNITY

This refers to the degree of collaboration between school and local institutions, with particular attention to collaboration between school and municipality. This will include: helping with additional funds, participation by educators/experts from the community in teaching

activities in tandem with the teachers, and making additional staff available. Projects providing learning services are also considered, how many and what kind of local institutions are involved (third sector, municipality, companies). Finally, consideration is given to whether these alliances between schools and local institutions are formalized or not.

Table 4. Questions related to the dimension system innovation

Dimension	Subdimensions	Questions
System Innovation	Parents' role	<p>Q1. Does the school have a parent league/association?</p> <p>Q2. Do parents collaborate with the school?</p> <p>Q3. What do parents think about the educational activities of the school?</p>
	Collaboration between schools	<p>Q1. Do you collaborate with other schools?</p> <p>Q2. Do you have school networks?</p> <p>Q3. What kind of activities do they offer to the students?</p>
	Collaboration with local community	<p>Q1. Does the school have planned or signed collaboration agreements with local associations?</p> <p>Q2. Do you have learning services projects with local associations?</p> <p>Q3. Does the school have a library that is open to the local community outside school hours?</p> <p>Q4. Do you feel any cultural marginality/isolation?</p>

Codes collected

The reading of the answers against the sub-dimensions defined a-priori made it possible to build a **codebook**. The codebook is the result of a two-phase negotiation process among researchers. In the first phase, each researcher has read the texts independently and identified emerging conceptual categories ("codes") to add to those identified a-priori. Any disagreements and differences in interpretations were resolved through a process of discussion/negotiation. During the second phase, the codes identified were organized and clustered into more comprehensive themes through a fresh process of discussion/negotiation.

This negotiation process has guaranteed the reliability of the codebook: *"The existence of such a tool is a necessary requirement for a content analysis based on human coding to be reliable."* (Lucidi et al., 2008, p. 97).

The interpretation of the responses within pre-defined units of analysis made it possible to compose a viable codebook that enables a replicable coding of materials into content categories, on which subsequent analyses can be carried out as appropriate.

Table 5. Codebook by theme and category

Themes	Sub-Codes	Brief definition
Parents' role	Collaborative parent association	Presence of active parent associations involved in organizing events and providing financial support.
	Involvement in curriculum activities	Parents' involvement in curricular activities and in co-teaching.
Collaboration between schools	Green skills networks	Networks of schools focused on sustainability, nature, well-being.
	Shared teachers teams	Schools share teachers and contents: e.g. on languages, peripatetic teachers.
	The value of national networks	Advantages for teachers and students of belonging to national networks
	International networks	Membership of international networks.
Collaboration with local community	Cultural services and facilities open to the community	Schools provide cultural services and open their spaces to the community
	Local community cooperation with the school	Municipalities support schools with economic resources and provide educational and cultural services.

Again, in the following section the codes extracted from the analysis will be examined within each sub-dimension with close consideration given to their interpretation (clarifying the meaning of a category within the scope of the qualitative analysis undertaken,

showing its fundamental and distinctive features) and with examples of texts that were identified as prototypes of the category itself and that, because they recur in all countries, serve to substantiate its meaning.

Codes, definitions and European practices

This section reports and discusses some of the thematic codes that emerged for the units of analysis identified above.

THEME: PARENTS ROLE

Parents often play a very active role in small and rural schools, for example through parents' associations that support schools in organizing events and giving financial support when needed:

The parents collaborate with the school very often. We collaborate with a very active parent association and many other parents are willing to cooperate and help in organising events, school trips, contests and sport competitions. Parents express their satisfaction with the educational, sports and cultural activities of the schools. They express no complaint about teachers' activities.

•POLAND, OPOLE•

Families are also involved in curricular activities: they can lead workshops or lessons on specific topics in collaboration with teachers. The benefits include sharing of knowledge between parents (practitioners) and teachers and increased engagement of the students during the lessons.

Families do, however, play an important role in the community pact. Through a Google Form, the education system requested collaboration both from the point of view of specific skills, and from the point of view of the time available so as to integrate families in teaching, imagining, for example, support for the teacher in activities outside of school, perhaps as part of Outdoor Education, help in the pre-school, support for the "walking bus" or time to help manage certain collaborative projects that can be developed within the class or when working at stations.

•ITALY, BOBBIO•

Parents participate in school projects, share their knowledge and skills through workshops with students and teachers; attend school recitals and parties; help raise money for charity events and promote the school in the local community.

•CROATIA, TORDINCI•

THEME: COLLABORATION BETWEEN SCHOOLS

Many schools are part of **school networks**. These include networks aimed at **developing curricula concerned with sustainability, knowledge of biodiversity and well-being**. To improve knowledge in cultural and health educational programs some schools design activities for pupils usually involve exchange of materials, communication, contests etc.

There is ongoing cooperation between small-class schools in the region, now as a part of the MAP II (Local Action Plan) working group. Schools organise and participate in sports competitions, educational events, and teachers' meetings to exchange experiences and discuss current issues.

•CZECH REPUBLIC, LUKOVA•

A further aspect of collaboration between small and rural schools is the **sharing of resources**, especially the **sharing of teachers or of educational materials**. Networks can also allow the sharing of educational materials.

Teachers [...] benefit from the Intercommunal pedagogic network (Regroupement Pédagogique Intercommunal, [...] a pedagogical teaching structure, without precise legal definition, based on an agreement between two or more municipalities for the establishment, operation and maintenance of an inter-municipal school or an inter-municipal class. [...] Participation in this network prompted primary teachers to work together, pooling materials, organizing pedagogical networks, preparing pedagogical roadmaps and shared assessments.

•FRANCE, FRENEY D'OISANS•

Sharing of teachers makes it possible to overcome difficulties or weaknesses in teaching provision such as the lack of language teachers.

The severe shortage of language teachers has prompted schools to network to solve the problem of language teaching. [...] Students and teachers have the opportunity to collaborate with students and teachers from other schools. For example, some students work in a single class with students from a small Swedish school to learn French, doing shared lessons. Sharing foreign language lessons between schools has given students the opportunity to study French, German, and Spanish, which would otherwise not have been possible, since, in Sweden, as already mentioned, there is a shortage of language teachers. This school also organises Sami language courses in cooperation with other Swedish schools.

•SWEDEN, LYCKSELE•

One interesting innovation is the use of the **peripatetic teachers in Malta**, Isle of Gozo, where a group of teachers specialized in Arts, Drama, Music, Physical Education, and Science spend 1 or 2 days in each school in the area.

There is also a group of peripatetic teachers who share ideas and practices from one school to another during the monthly meeting at the College of Gozo.

•MALTA, ZEBBUG•

Another important goal of the networks is to provide **in-service teacher training**, using expert teachers as **mentors** for teachers who need the upgrading of their competences. To reach this goal the school collaborates with other schools mainly in the area of teacher training and guidance, as a part of a school cluster supervised by the same education coordinator.

National networks have a particular value for isolated schools, in several respects:

(1) For schools, in helping them expanding their technological equipment or to work within groups sharing common values:

There are very important national networks for isolated schools. In particular, the INE network (Innovation numérique d'excellence for l'École) or the ENIR network (Ecoles numériques Innovantes et ruralité) which make it possible to expand the technological equipment of small schools.

•FRANCE, FRENEY D'OISANS•

The school has also been cooperating for 13 years with a school in Slovenia; they are connected by a very special friendship, so they meet every year. During the meeting they focus on learning about a different culture and traditions and exchange their experiences.

•SERBIA, PRIMARY SCHOOL MLADOST•

(2) For teachers, as an incentive towards more effective teaching and innovation in their teaching:

Participation in networks is a wealth and an incentive to do more and better. The network lets schools emulate (and pushes them to do better and differently from others) but it also allows them to systematise, to collaborate and to help each other. The network of small schools is asked to take a step forward and to establish "hub schools" [scuole polo], a point of reference in the areas in question and that will probably allow for further expansion and more effective sharing of the expertise of the various contact people.

•ITALY, BOBBIO•

(3) For students, by encouraging them to be more creative, strengthen their self-esteem, and develop life skills:

Hence a local or national network of small and rural schools [especially at European level] would be a great opportunity as it would encourage students to be creative more social – build self-esteem – learn more – share experiences (for the school). Similar educators would help to solve problems, share knowledge and promote peer tutoring.

•CROATIA, BRACEVIC•

There are many benefits of collaboration between schools: students develop language skills, presentation skills, communication with students from different backgrounds, which is important for social development. They strengthen their skills while working as a team and are empowered to take responsibility for their work in achieving common goals. Students also have the opportunity to learn how to use different digital tools.

•CROATIA, TORDINCI•

International networks seem to be less developed in small schools: reports from schools did not highlight the same benefits or values as with the national networks. However, some experiences with European programmes (eTwinning, Erasmus+) underlined the importance for schools to strengthen teachers' digital competences and to overcome organizational barriers (e.g. different school timetables). The European School Education Platform can support these efforts:

The school has extensive experience in working with European programmes; we have seven national and seven European quality labels for projects that have been carried out in previous years.

•HUNGARY, OH NAGYIVAN•

There is also the opportunity to collaborate with other schools in Europe but this is difficult to achieve since it requires schools to run on the same timetable (for example, start times, breaks, and end times) or to find common work periods. For example, if they take a shared French lesson, the lesson must start and end at the same time for all the students.

•SWEDEN, LYCKSELE•

eTwinning and Erasmus projects require also technological competence and knowledge that many teachers do not have and the ICT teacher cannot work all day to design this kind of project.

•GREECE, PRIMARY SCHOOL KONITSA•

THEME: COLLABORATION WITH LOCAL COMMUNITY

Small and rural schools seem to enjoy close collaboration with the local community. They care for the community and strive to offer cultural services otherwise not available, for example access to libraries. There are cases of **school libraries opened to the community**, and the local community often supports the school with its own **library services** by mounting curricular initiatives or projects or, in some cases, by opening a municipal library within school buildings:

The school has a library that is open to the local community and will hopefully soon be open after school hours (BIBLOH!) and is expanded by using MLOL, a Media Library On Line that allows all children and families to choose from thousands of books and download them to read on a Kobo/ Tablet. In addition, this free service offered by the school to all families includes Spotify and a newspaper library.

•ITALY, BOBBIO•

The school becomes the most important institution in town. From here activities are organized for the benefit of the community.

•SPAIN, CEIP INCARNACION RUIZ PORRAS•

Close community relationships are also important in building connections for students so they can benefit from **work experience and traineeship opportunities**:

This school has various relationships with local entities. As a school that also prepares young people for the world of work, it cannot ignore the need to have contact with local bodies, for example the hospital to train nurses.

•SWEDEN, LYCKSELE•

In most cases the local community offers **financial support to schools**, providing extra funding (e.g. for meals or for renovating or reconstructing buildings), organizing activities for students, or supporting the participation of the school in international projects such as Erasmus+:

Schools are supported by the village council that provides extra funding and support when necessary and the school takes part in activities that the village organises.

•CZECH REPUBLIC, LUKOVA•

The Municipality pays the annual membership fee of the school to the International Eco School project. They also help organizing our Christmas Fair. For a certain number of students, the municipality pays for school meals. They provide some of the additional school resources for all students. Through a public work project, they funded the improvement of the building of our satellite school and of its surroundings.

•CROATIA, TORDINCI•

The local authority supports educational projects: for example, for the Erasmus+ projects, it participates in some of the activities during these international meetings (e. g. planting the tree of friendship, the tree of liberty etc.) and supports the school and projects for reconstruction and renovation.

•CZECH REPUBLIC, PRIMDA•

The local community often supports the school with **library services** to help initiate curricular initiatives or projects or, in some cases, by opening a municipal library within the school buildings.

In the school there is the Local Council Library operated by the Local Council.

•MALTA, ZEBBUG PRIMARY, GOZO ISLAND•

The school organises collaboration programs with the local library that students visit twice a week. They have the opportunity to borrow some books to study there and to have access to literature. This action is also supported by the teachers.

•GREECE, PRIMARY SCHOOL KONITSA•

There is also a city library which organizes events for many schools in the area, for example a competition among students with a prize for the best summary of a chosen book. Or sometimes organize meetings with distinguished poets; students can also participate in a poetry competition and win a prize.

•SERBIA, PRIMARY SCHOOL MLADOST•

Reflection

In relation to “*System Innovation*”, European small and rural schools demonstrate a high degree of participation in national networks and confirm that there are multiple benefits from belonging to some kind of alliance for both students and teachers and the school as a whole.

These networks – as confirmed in the relevant research – are environments for exchange, development and cooperation and a vehicle for equitable and continuously improving education. These benefits in fact contribute to “*social capital*”, understood as the sum of resources gained through social relations and networking. In short, networks:

- Can be drivers of change in education and are a strong tool for the dissemination of innovative educational practices among headmasters and teachers from different schools;
- Help overcome the isolation of schools and educators by providing opportunities for organised professional exchange, development and enrichment;

they offer isolated schools new ways of connecting with like-minded institutions and individuals and provide a vehicle through which to engage with a wider audience;

- Provide an effective approach to support groups of schools rather than individual schools;
- Provide support structures for strategic development and facilitate greater political strength from collaboration.

On the other hand, participation in international networks is desired by schools but is often considered difficult. Schools would welcome greater support, in particular on digital competences. Cooperation between schools with small and remote classes can be very helpful in gaining access to knowledge from other schools that face the same issues and challenges and can act as mentors.

Dimension 3. Pedagogical Practices/Teaching practices

Pedagogical practices in small and rural schools: Overview

Pedagogical practices are one of the dimensions investigated in this comparative research: they are an essential component of any educational context, whether in standard school or in rural school contexts. Comparative research on rural education is rare. The OECD collected a series of papers looking from an international perspective at the factors shaping students' learning experience in rural communities (2019). OECD, UNESCO and many other studies – including INDIRE research activities over the last ten years – have identified some of the major issues affecting small and rural schools and here it is not only a matter of the small sizes of schools and classrooms, but also inadequate infrastructure, the lack of quality

teachers, and limited educational offerings (Ovenden, Hope & Passy, 2019). As the Manifesto of the small and rural schools states:

“It becomes essential to transform a constraint (few students) into a resource (high quality), by devising a different paradigm for these widespread educational realities, in which the goal is to create learning environments that are qualitatively adequate and oriented towards the definition of inclusive pedagogical and didactic objectives.”
(“[Manifesto of the small and rural schools](#)”).

Moreover, limited enrolments may be challenging from differing perspectives (i.e. financial aspects, multi-age classes) and require pedagogical strategies (including the physical learning environment and the

management of time) to exploit potential advantages that can transform educational environments into places of inclusion and experimentation.

Dimensions and sub-dimensions of analysis

The “Pedagogical Practices/Teaching Practices” dimension is divided into two parts: “**Space and Time Organisation**” and “**Classroom Management**”. Our key research questions focused on how school architecture matches pedagogical practices, whether outdoors or indoors, and how a classroom with students of different ages can be organised and managed.

DEFINITION: SPACE AND TIME ORGANISATION

Spatial organization includes elements related to how physical space is organized in a school to benefit learning. Spatial organization includes: the variety and flexibility of spaces, informal learning areas, and different provision for different age groups; the design

of student learning environments on a scale that is accessible to them and meets their needs; and the inter-dependence of time and space.

DEFINITION: CLASSROOM MANAGEMENT

Classroom management relates to the range of structures and practices that help teachers manage classrooms successfully and facilitate high levels of student attention. Teachers’ classroom management practices allow students to use time effectively, and those practices have frequently been related to student achievement. Classroom management is not just about what teachers do: students also contribute to managing the classroom through their behaviour.

Table 6. Questions related to the dimension pedagogical practices/teaching practices

Dimension	Sub-dimensions	Questions
Pedagogical practices	Space and time organisation	<p>Q1. Is your time and space organization of the classroom/school different from standard schools?</p> <p>Q2. Do you have outdoor education activities?</p>
	Classroom management	<p>Q1. Do you have multi-age classrooms?</p> <p>Q2. How do you manage teaching activities for this multi-age group of students?</p> <p>Q3. Do you foster autonomous learning, collaborative activities, peer tutoring, self-regulated learning?</p>

Codes collected

The research methodology led to sub-themes being identified for each dimension, with team discussion and negotiation allowing unequivocal definition of the agreed codes.

The following themes were identified for the two sub-dimensions:

- For “**Space and time organisation**”: Flexible Classroom, Subject-specialised classroom, School zoning, Outdoor education, Inclusive Classroom, Common timetable
- For “**Classroom management**”: Interdisciplinary activities, Peer tutoring, Digital Classroom, Curriculum Typology.

Table 7. Codebook by theme and category

Themes	Codes	Brief definition
Space and Time Organisation	Flexible Classroom	Teaching space that can be organised in different settings according to teaching necessities
	Subject- Specialised Classroom	Classroom setting with specific tools or documents for specific subjects
	School Zoning	School learning environment either within the confine of the school playground and in local neighbourhoods
	Inclusive Classroom	Classroom that includes digital tools for disabled students
	Common timetable	Timetable of the different classrooms in common to organise learning activities for different school year students
Classroom Management	Interdisciplinary Activities	Learning activities that involve the combination of multiple subjects and could be offered to students of different ages
	Peer Tutoring	Older students support and help younger students
	Digital Classroom	Classroom equipped with digital devices
	Curriculum Typology	Different typologies of curriculum to fit the learning needs of different student ages

Again, in the following section the codes extracted from the analysis will be examined within each sub-dimension with close consideration given to their interpretation (clarifying the meaning of a category within the scope of the qualitative analysis undertaken,

showing its fundamental and distinctive features) and with examples of texts that were identified as prototypes of the category itself and which, because they recur in all countries, serve to substantiate its meaning.

Codes, definitions and European practices

This section reports and discusses some of the thematic codes that emerged for the units of analysis identified above.

THEME: SPACE AND TIME ORGANIZATION

The European small and rural schools that participated in this research reported varying approaches to the design and use of learning space and time.

In terms of **flexibility**, classroom settings are varied so as to accommodate different pedagogical activities, particularly those mainly based on collaborative learning and small groups, reflecting students' needs including catering for multi-age classes where necessary:

The classrooms are multipurpose, used not only for teaching but also as an IT classroom, art classroom, and playroom. The classes are based on experience and practice. For example, the biology class students do book learning and go out in the natural environment and see what they have learned in practice.

•CZECH REPUBLIC – LUKOVA•

The school has several corners, mezzanines, two small rooms, glazed corridors, to facilitate work in small groups. In each of the two classrooms there is also a large space with a specific point with a place for painting, computers, a mezzanine for reading, so points that allow group work.

•FRANCE, FRENEY D'OISANS•

School zoning – of both indoor and outdoor space – is also an approach that has allowed some schools to experiment flexibly with the space available:

In some schools there are special corners in every classroom such as the reading corner or the science corner.

•ITALY, BOBBIO•

The school has two buildings, one for more theoretical subjects (such as English and mathematics) and one for more practical ones (such as nursing and mechanics). Both buildings are in the same geographical area. Students who are studying to become builders need to be able to get to the "construction site" where they practise their skills.

•SWEDEN, LYCKSELE•

Most schools use outdoor space such as the playground or spaces in the local neighbourhood such as the local library:

Our school uses outdoor space for many educational activities. That is why we built two gazebos to be used as outdoor classrooms.

•CROATIA, TORDINCI•

Outdoor activities, so that children can have real-life experiences like collecting rubbish and paper, and planting trees and plants, are planned during the school year, including sports programmes and trips during the summer.

•HUNGARY, OH NAGYIVAN•

The school library has almost 10,000 books and it is open to teachers, students and also former students within the school working hours.

•SERBIA, MLADOST•

Educational activities often take place outdoors. Since our school is located in an area surrounded by beautiful nature and not by concrete and motorways, we try to make it part of our daily operation. If the weather permits, classroom lessons are often held outdoors.

•CROATIA, BRACE-RAVICA•

So as to use learning space effectively for longer periods of time and to differentiate learning activities, it may also be necessary to modify the organisation of school time. Only in one case did a school adopt a **common timetable** to maximise the scope for teaching activity:

The daily timetable is common (in terms of teaching hours) with every other school in the country. Nevertheless, in each classroom, each teacher makes the appropriate adjustments according to the learning readiness and language needs of the children.

•GREECE, KONITSA•

Effective space utilisation is also a useful tool in allowing schools to pursue **inclusion**. This is not only as a result of having digital devices for students of different ages and abilities but also because of approaches such as peer tutoring and projects designed by teachers but supervised by older students:

Students then have a lunch break and afterwards they work on the activities for the following day under the supervision of their teacher. It's very useful because families cannot help them properly.

•HUNGARY, OH NAGYIVAN•

THEME: CLASSROOM MANAGEMENT

As far as the classroom management is concerned, European small and rural schools adopt different approaches. However, the research investigation points to **standard (i.e., traditional) approaches to teaching activities**.

Most schools are using **digital tools and devices** for the improvement of students' digital competences and for keeping in contact with other European students participating in eTwinning and Erasmus+ projects:

Besides learning from their natural environment, they [students] use digital tools in their outdoor classrooms. There are smartboards and laptops in all the classrooms. The students were provided with tablets, something that came in very handy during the coronavirus pandemic.

•CROATIA, TORDINCI•

(...) they [teachers] can use digital content in Multibooks and practise active teaching during lessons. They usually create digital content for the virtual wall newspaper which is displayed in the school corridor. Each teacher is equipped with a laptop computer to deliver remote education since many of them do not have one (some PCs are borrowed, and some are donated).

•HUNGARY, EGRI KEMENY•

Much research on the most challenging aspects of small and rural schools highlights the challenges of maintaining the quality of the educational offering and curriculum when using **multi-age classrooms**: this can strongly affect the quality and content of the teaching.

Most of the schools investigated follow their National Curriculum, but those that have multi-age classrooms adopt different approaches to the curriculum and thereby face challenges in managing the classroom with students of different ages. The research points to increased teacher fatigue which can affect the quality of educational offer, and teachers in multi-age classes report that they have to work harder than their colleagues in standard classes.

Regarding the choice of curricular forms, the school adopts, in addition to the parallel curriculum, also and often spiral or rotating curricula:

- *parallel curriculum: in French and mathematics;*
- *spiral curriculum: in science, historical geography, they focus more on one subject one year and another subject the next;*
- *rotation of curricula; in sport, for example, there are constant activities and others peculiar to one year depending on the age of the children.*

•FRANCE, FRENEY D'OISANS•

The organisation of the curriculum is left to each of the teachers. They often use a parallel micro-level curriculum. The spiral curriculum is somewhat prescribed by the Ministry of Education curriculum, and students return to certain topics through different school years, deepening their knowledge. The rotational learning model is incorporated through extracurricular activities and flipped classroom activities.

•CROATIA, BRACE-RAVICA•

However, this approach to the curriculum offers small classrooms the opportunity to experiment and test the effectiveness of tailored educational activities. Such diversification entails “material fatigue” that increases according to the number of student levels in the multi-grade class and the number of teaching materials used in the classroom and for individual study at home. Indeed, teachers complain about the lack of resources, worksheets and textbooks designed specifically for teaching in non-standard classes, especially for independent learning. Overall, with the multi-age classroom, there is greater complexity in organising daily work time and in curricular planning.

To successfully teach in mixed-age contexts, experience of school networking and eTwinning classrooms could help teachers by sharing specific pedagogical practices such as grouping and differentiation, family and community participation, and rethinking educational spaces.

Reflection

As far as the “Pedagogical Practices/Teaching Practices” dimension is concerned, the general approaches of European small and rural schools are based on collaborative learning and small group organisation thanks to the flexibility of space utilisation in and around their buildings, reflecting their non-standard school sizes.

School zoning, for example, illustrates how small European schools are transitioning towards innovation in school learning spaces and experimenting with outdoor learning settings, albeit in a low percentage of cases.

In terms of classroom management, small and rural schools are on a par with European schools generally as regards using ICT for inclusion, overcoming isolation, and communications with other schools in their national

context. Very few schools report on experimenting with different curricula for use in multi-age classrooms, since this may require specific additional training for the teachers involved.

Dimension 4. ICT as inclusive tool

ICT for quality education in isolated schools: Overview

Within educational research, the theme of ICT in small and rural schools has actually been examined from multiple perspectives. Many studies reconsider the use of technologies and digital materials in the context of *remote* situations (Mangione, Cannella, 2020; Mangione, Calzone, 2020), and as a means of overcoming geographic isolation and inclusion hardships for the most vulnerable children (Azano, Stewart, 2016), focusing on the scenarios which emerged following the pandemic as well as on the inequity of distance education solutions for *rural learners* (EAC, 2020). The practices implemented through ICT might not simply be adaptive actions to cope with health or environmental emergencies

(as with the covid-19 pandemic): they can also reframe educational space to develop a system of knowledge, ideas, values, and desires that aim to recreate networked relationships, and help devise new digital curricula capable of enhancing the inclusive capacity of small schools. Within this dimension of “*ICT as inclusive tool*”, this European research highlighted an implicit question about understanding how small schools can integrate technologies to provide pathways of inclusive *remote or distance education* and develop forms of networking that can expand school offerings within extreme contexts of isolation, crisis and emergency (home education, in-hospital schooling, “*disconnected*” realities).

Dimensions and sub-dimensions of analysis

The dimension “*ICT as inclusive Tool*” was divided into specific sub-dimensions to guide the qualitative investigation: **Remote teaching** and **Distance learning**.

DEFINITION: REMOTE TEACHING

(Emergency) remote teaching (ERT) is seen as a temporary shift from the normal modes of teaching. It happens when teaching becomes remote (or distant). This takes what would have otherwise been face-to-face or hybrid teaching and transforms it to become digital education. When a crisis occurs that requires schools to shut down, emergency remote learning may be in the form of online lessons, radio, or blended learning solutions.

DEFINITION: DISTANCE LEARNING

Distance/Online learning is a method of instruction that takes place over the internet. Sometimes called “*e-learning*,” it is a form of education that happens at a distance rather than within a classroom setting. Online learning was created to leverage technology and provide students with the opportunity to earn degrees and/or attend school without having to be in an academic setting.

The research undertaken has considered two particular aspects:

- On the one hand, the importance of understanding how schools, compelled by the pandemic or emergency situations, have succeeded in using ICTs as a tool towards equity and democratic educational provision; and

- On the other hand, whether the integration of ICT becomes systematic in the school curriculum and how the connection/relationship and networking dimensions succeed in fostering alternative, but inclusive school settings geared towards educational differentiation.

Each sub-dimension was divided into stimulus-questions that guided the schools identified by the Ministries of Education (MoE) in filling in the documentation sheet and answering the interview questions for the headmasters and teachers planned in order to deepen the contents of the documentation sheets.

Table 8. Questions related to the dimension "ICT as inclusive tool"

Dimension	Sub-dimension	Questions
ICT as an inclusive tool	Remote Teaching	<p>Q1. Do you practice remote teaching?</p> <p>Q2. What kind of IT tools do you use? Are they for the entire school?</p> <p>Q3. Are you involved in eTwinning projects? How many classrooms in your school are involved?</p>
	Distance Learning	<p>Q1. How long have you been working with distance learning?</p> <p>Q2. Did you experience any positive effects on the students?</p>

Typologies of collected codes

The interpretation of the responses within pre-defined units of analysis made it possible to compose a viable codebook that enables a replicable coding of materials into content categories, on which subsequent analyses can be carried out as appropriate.

Table 9. Codebook by theme and category

Themes	Codes	Brief definition
Remote teaching	Motivation and engagement	Ability of remote teaching to affect learner's motivation or involvement
	Isolation	Use of remote teaching to overcome isolation or amplify its usefulness in emergency situations
	Inclusive Learning and Differentiation	Added value of remote teaching in being inclusive while ensuring greater educational differentiation
	Compulsory and Emergency	Situations of adoption of remote teaching
	Participation and relationship	Use of remote teaching to ensure student participation in class dynamics and to promote the maintenance of student relationships
	School-Family Connection	Utilization of digital spaces capable of enhancing family participation

Themes	Codes	Brief definition
Distance learning	Isolation and relationship care	Ability or not for distance education to overcome isolation and care for classroom relationships
	Extensive and Compulsory distance learning	Situations in which web-based/remote teaching becomes an integral part of the curriculum
	E-Classes and eTwinning	Forms of virtual classrooms and network gateways
	Inclusive learning and Differentiation	Use of distance learning to foster inclusive learning and differentiation
	Extended school and Digital Scenarios	Scenarios of extended and digital school
	Motivated and self-regulated learning	Impact of distance learning on self-regulation and motivation
	School-Family Connection	Digital spaces for documentation and school-family connection

Again, in the following section the codes extracted from the analysis will be examined within each sub-dimension with close consideration given to their interpretation (clarifying the meaning of a category within the scope of the qualitative analysis undertaken,

showing its fundamental and distinctive features) and with examples of texts that were identified as prototypes of the category itself and which, because they recur in all countries, serve to substantiate its meaning.

Codes, definitions and European practices

This section reports and discusses some of the thematic codes that emerged for the units of analysis identified above.

THEME: REMOTE TEACHING

Throughout recent emergency situations when online education became compulsory, small schools have responded by setting up **virtual environments** supported by Ministries of Education, ensuring that the most vulnerable pupils had the equipment needed and could access enhanced classrooms for specific subjects.

During the pandemic, the school proceeded to compulsory distance learning through the official platform of the Cisco Webex Ministry. For this purpose, it provided some tablets to students who did not have the necessary material and technical means.

•GREECE, KONITSA•

Both teachers and students have Google accounts, so they normally use Google APPs. In January of this year, they added a platform called Aula01, which includes a variety of exercises for many subjects such as English, Italian and Math, and the Invalsi tests. At first it was only offered to struggling pupils, but later it was extended to all middle school classes.

•ITALY, INVORIO•

Schools provided themselves with remote teaching environments and tools that fostered **instructional differentiation** by age and level. This was considered an effective way of working to ensure **educational inclusion** of children suffering hardship, including health emergencies or problems intrinsic to isolated territories, such as adequate transport to and from school.

While teaching remotely, we used Yammer, Teams, ClassDojo, Edmodo, Google Sites, and Adobe Spark. This school year we are favouring Teams for older students. Primary grade students use simple tools suitable for their age. Teachers send them assignments mainly via Viber, e-mail, or their parents' Google Sites.

•CROATIA, TORDINCI•

Remote teaching is activated immediately in the event of health requirements, but it can also be specifically requested by parents who face other difficulties. For example, problems in small schools may arise with transport (a bridge collapses and a stretch of the valley can no longer be reached in reasonable time) that may justify distance learning activities. As a way of facilitating these and other more specific situations pertaining to vulnerable and ill children, each classroom is equipped with a microphone and video camera.

•ITALY, BOBBIO•

Online teaching for severely disabled students is extremely challenging compared to neurotypical students' e-teaching, yet the feedback from parents was excellent.

•MALTA, TA' SANNAT•

The remote teaching experience allowed schools to overcome situations of **class group isolation** while also enabling them to ensure educational continuity in cases of major vulnerability caused by health issues or environmental difficulties in peripheral areas.

The school operated distance learning even before the pandemic to support educational continuity for vulnerable students or pupils who were temporarily ill or in cases of environmental hardships and isolation.

•ITALY, BOBBIO•

During the pandemic emergency, in isolation cases, students learn online with their teachers, and teachers who are in self-isolation give online lessons through real-time virtual meetings while pupils are in their classrooms.

•CROATIA, BRACEVIC•

These remote classroom settings in some cases included the presence of an adult who helps students become familiar with their class and encourages efficient distribution of materials and good levels of class participation.

An adult is with the remote students in their classroom and this person follows and supports students in the case of difficulties and is "the hands and eyes" of the teacher working remotely. They distribute paper materials and check that students are paying attention and following the lesson. The teacher works to interact with and build a relationship with these remote students as if they were in the classroom.

•SWEDEN•

Despite the impermanence of remote teaching, many schools reported an improvement in students' sense of independence and persistence.

They found distance learning have had quite positive effects for most of the students: more engaged, higher level of independence, motivation, persistence, desire to do research.

•SERBIA, MLADOST•

At the same time, they document some positive approaches to encourage **parental participation** through sharing educational materials (e.g. photos and videos) used in students' daily teaching.

Digital spaces are effective tools for parents to enjoy a wider access to what is being done in the classroom. Today this connection comes in the form of videos and/or photos commented on by the audio they receive via the Internet. A tablet (in progress) would allow children to be totally independent in this practice.

•FRANCE, LA BALME•

THEME: DISTANCE LEARNING

Distance learning may be the main choice in temporary emergency situations, but it does lead to more widespread **student isolation**, especially for those who live in "highly disconnected" areas. Also,

students suffer in the absence of the face-to-face social interaction which needs to be nurtured and maintained in order to build effective class groups and the trust dynamic amongst peers.

Students are fairly isolated. Some of them are isolated not only from larger geographical areas, but also because they have to go several kilometres to the nearest age peer, which is almost impossible without parents driving them. Online classes are encouraging isolation. Children miss that social interaction they need for a healthy development and advancement at their age.

•CROATIA, BRACEVIC•

In the future, partly as a result of the distance learning (DAD) experience that the pandemic compelled the school to, the idea is to invest in an environment that extends the classroom and allows for virtual classrooms. Connection issues that would risk further isolating and excluding children will need a way through.

•FRANCE, FRENET D'OISANS•

The human relationship contributes a richness in learning that is lost in such distance education. Physical closeness, looking at each other, building trust, the group attending in the classroom that benefits the individual at a distance, are all gone.

•FRANCE, LA BALME•

The experience of distance learning could be continued and could become a way of working in the school, but the fact that not all students have access to the internet at home, or many of the students don't have a computer leads us not to be certain that the school will use distance learning extensively or compulsory.

•GREECE, KONITSA•

Distance education has fostered the development of extended forms of learning. **e-Classes** have become one of the standard forms of education and have found greater acceptance in schools that have already experienced network twinning and teacher mobility focused on the use of ICTs.

Because of the Covid-19 pandemic, the use of ICT has increased. For online teaching, they appreciated the experience from projects such as Erasmus+ and eTwinning.

•MALTA, TA' SANNAT•

Twinning and networking experiences foster extensive planning that helps the school in re-connecting with the external environment and renewing its curricular provision.

Teachers, trained with the help of numerous eTwinning and Erasmus projects, credit distance learning with a potential that also allows for broader discussion and the development of out-of-school projects.

•ITALY, BOBBIO•

The school does not have opportunities for e-Twinning group activities with other neighbouring schools, because it wasn't on the school curriculum.

•GREECE, KONITSA•

Distance learning finds its first experiences in those distinctive situations where inclusion and educational equity needed to be ensured. Distance education, included in the school's offerings and capable of meeting different learning styles, is experimented with in cases of home schooling, healthcare requirements or isolation due to disruption of transport routes.

The only cases in which the school provided distance learning was for serious home-bound situations. It did, but for only 3 months in 2010: a pupil's parent had set up a videoconferencing system, e.g., his daughter learned to read from her bed at home. Hloé learned to read, write and count perfectly, in her first year of primary education.

•FRANCE, FRENEY D'OISANS•

Remote teaching is activated immediately in the event of health requirements, but it can also be specifically requested by parents who face some special difficulties. For example, problems in small schools may arise with transport (a bridge collapses and a stretch of the valley can no longer be reached in reasonable time) that may justify distance learning activities.

•ITALY, BOBBIO•

We did not find any major difficulties because the students were prepared for this type of learning. Some students found this teaching suited them better.

•CROATIA TORDINCI•

Distance education has enabled the implementation of **forms of extended and digital schools** that can assist and support students by means of specific aids and materials while maintaining some direct in-person teaching. Creating **repositories of digital teaching scenarios** can help in greater integration of the curriculum and in the planning of lessons and preparation of online activities.

Repositories of Educational Scenarios that play a basic role in curriculum development. They are used since quite recently and they promote extra information to the lesson and the subject. This was a practice that took place mostly during distance learning education, and a lot of exercises were assigned to the teachers through the platform.

•GREECE, KONITSA•

Teachers preferred the hybrid delivery model. A portion of the direct teaching was delivered to the student via online communication. The remaining portion of direct teaching is delivered face to face and via homework worksheets. Every weekday, online lessons are provided.

•CZECH REPUBLIC, LUKOVA•

Distance teaching needs to be continued. Virtuality has allowed the school to reach places and spaces where it would otherwise not be possible, to extend and give quite specific supports to the pupils themselves: for example, with Classroom you have a Network drive, so a whole series of lessons, documents and materials is always there ready for the pupil and for remedial and reinforcement actions.

•ITALY, INVORIO•

Schools have reported that distance teaching promotes the development of **self-regulation in learning and greater independence** of the student.

Thanks to distance learning, pupils also have experience with self-regulated learning.

•CZECH REPUBLIC, PRIMDA•

For many families, providing the devices for distance learning wasn't a problem. On the other hand, a lot of students needed help from their parents, especially in the lower primary classes. As a result of distance learning, students' digital competences and independence improved. The majority of students managed to regulate their own learning, though many of them needed assistance.

•HUNGARY, EGRI KEMENY•

This distance learning has been good for our students and families in that it allows them to work independently from home. Also, the use of new technologies is always very motivating for our students and they really enjoy working this way.

•SPAIN, ENCARNACION RUIZ•

Digital spaces have also resulted in increased **family participation** and awareness of what was accomplished during the school day.

Digital spaces are effective tools for parents to enjoy wider access to what is being done in the classroom. Today this connection comes in the form of videos and/or photos commented on by the audio they receive via the Internet. A tablet (in progress) would allow children to be totally independent in this practice.

•FRANCE, LA BALME•

Reflection

The thematic areas explored as part of the dimension “ICT as inclusive tool” help provide the educational and scientific community with an understanding of practices within small and rural schools and provide a basis for examining sustainable and replicable solutions at European level. Experiments with remote teaching in emergency situations can help build replicable educational scenarios for wider application, particularly for home-school settings supported with additional educators to support the teacher in the classroom. Distance learning can be part of the regular school curriculum and foster educational equity, especially in scenarios of home schooling or where environmental or other disasters severely affect digital access. Local, national and European networks can exploit and benefit from repositories of educational digital scenarios: they provide great opportunities for curriculum dissemination and integration to underpin teacher training and increase curriculum digitization.



General conclusion

Rural development is a major topic in the agenda of European Institutions and in national policy-making. One of the main concerns of policy makers is to reduce the educational gap between urban and rural schools and, with it, educational inequality. Academic research on small and rural schools has tended to focus on learning and teaching in unusual or atypical conditions, in rural vs. urban settings, or in small vs. large schools; on location-related and location-conscious education; and on the community active school and environmental sustainability.

The thematic analysis (codebook) employed in this first phase of research on the experiences of small and rural schools in the EU provides the educational and scientific community with a broad and accurate understanding of the practices implemented, nationally and internationally.

The reflections made on the four specific dimensions investigated allow us to identify the challenges that small schools must face but also the *opportunities* that the European networking dimension can offer for schools and for their enhancement.

Challenges

Although rural schools typically **suffer from a lack of resources**, they often benefit from stronger community engagement. Research has shown that rural schools have greater levels of parent participation in extracurricular activities. Further challenges are faced due to **inadequate infrastructure** and a **shortage**

of quality teachers, which the initial survey (of 12 sample countries) expressed in terms of “*teacher training needs*” in relation to multi-age classrooms, and of designing a “*Teaching strategy to improve cooperative distance education and strengthen the local curriculum*”.

Opportunities

At the same time rural schools are experienced as good places for innovation and research and development into teaching and learning practices. Their small teaching teams are accustomed to working in multiple and flexible ways that promote innovation and creativity. As small schools are closely bound into their physical and socio-cultural situations, they are also good starting points for innovation in terms of:

1. Experimenting with innovative pedagogy that takes account of the global competences curriculum;
2. Widening the educator profile through multi-agency approaches to projects, collaboration among experts, and supporting hybrid learning environments, such as small and rural schools as a learning hub (as suggested in the OECD “*Back to the future of education*” (2020) report);

3. Promoting networks as one way to scale profound change, which is the type of change required for system transformation. School networks – connecting the physical dimension of schools with the digital dimension – can be used as a means of coping with the phenomenon of closures caused by low student numbers and depopulation (cf. Tantarimaki & Torhonen, 2020). Small schools can contribute to social and economic sustainability in community life (e.g. by encouraging younger families to stay or move into these communities), providing a focus for social cohesion and growing relationships.

Concluding recommendations

The research undertaken in this comparative study confirms the important role and contribution of small and rural schools and the need to support their development. It opens up new scenarios for European small and rural schools. The discussions of school organisation and pedagogical approaches in facing challenges such as class size, geographical isolation and parental involvement led the research

team to identify some potential actions for different stakeholders to highlight the specificity of small schools and support their activities with tailored actions which support their development and protect them from closure.

Our recommendations are addressed to a range of different stakeholders such as policy-makers, school leaders, teachers and local administration.

Stakeholder partnership

We underline the importance of partnership, networking and collaborative practice for supporting school improvement in remote schools: this could be strengthened by offering teachers an open community of practice for all practitioners. The interviews conducted with small and rural schools in 12 countries have revealed different approaches within the three research pillars investigated, namely:

- Sharing practices on the use of educational technologies to overcome isolation;
- Sharing experiences of learning practices in multi-age classes;

- Sharing experiences on models of school organisation and links with the local community.

It is important to offer the entire population of small and rural schools in Europe a community in which any schools and teachers can exchange experience of their respective practices.

Such a collaboration space could potentially be supported as part of the European School Education Platform under the Erasmus+ programme, which has already created specific learning groups in this area.

Policy-makers

We encourage the European Commission through its *Erasmus+* programme to create specific action lines for supporting the development of innovative approaches for small and rural schools in Europe in the various areas identified in this research report.

We invite ministries of education to create and support a network of small and rural schools, teachers, and ambassadors, which could animate and support the community of practice which should be developed.

Support should be given to developing additional research areas regarding small and rural schools. Current research has extended to investigating more closely the impact of multi-age pedagogy on learning outcomes and also student capacity for developing autonomy in their learning practices. Also, research

programmes have not been able to examine the transition between primary school and lower secondary school, where some adaptations may be necessary to facilitate the transition of students from small and rural schools into more traditional school environments.

This research report – conducted under the umbrella of the Small and Rural Schools Interest Group – should be considered as a first step towards a more ambitious programme which should be decided at ministry of education level.

An overriding consideration should be the implications of educational inequality for school improvement and the need to provide relevant, contextual and focused support to schools that are educationally isolated.

School leaders

All teachers and school actors within small and rural schools should be offered opportunities for professional development through a capacity-building programme, enabling practitioners to benefit from the experience of others in a connectivist way. This capacity-building

programme could also integrate the results of this research study and investigate in greater detail the various issues identified in this document.

We recommend the development of a European manifesto for a model of small and rural schooling to support improving the performance and well-being of rural education.

Teachers

Self-evidently, we recommend across all the above actions an unerring focus on teachers, in particular enhancing their opportunities for:

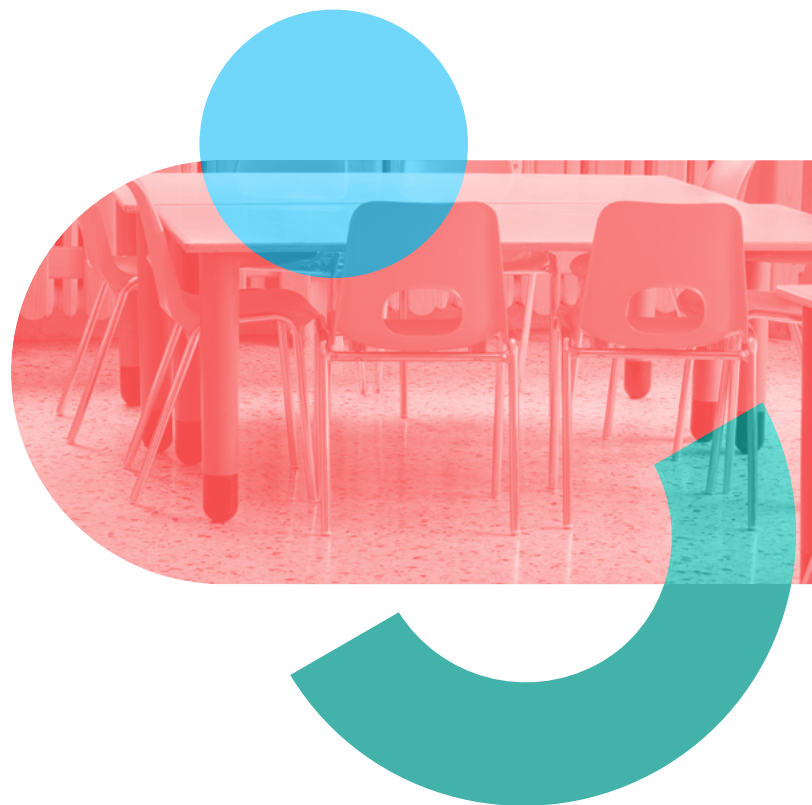
- Sharing practices, developing and accessing toolkits and teaching materials that can give advice and support for work in small and rural schools.
- Participation in national and international networks.



The research presented in this report examines findings in national and international literature regarding organizational arrangements in small schools. It focuses on areas which represent their main pillars of innovation: Leadership and Management, System Innovation, Pedagogical Practices, and ICT as inclusive tools.

The codebook developed during this research on 19 European small school experiences provides the educational and scientific community with a framework for analyzing and understanding the schools' practices in an international comparative context and provides a basis for further research in this field.

The findings on the dimensions surveyed and on networking practices at local and international levels will be disseminated to encourage the continuation and replication of similar innovations at European level.



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