The "Classes on the net" research project: The involvement and opinion of parents

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Abstract

This paper focuses on the involvement of parents in the "Classes on the net" research project and their opinion and suggestions about this project. "Classes on the net" is a hybrid model, based on the idea of working with classrooms as Knowledge Building Communities This educational model can improve the management of small and isolated classes characterized by multigrade classes. In "Classes on the net", delocalized classes aim to design a common disciplinary path involving student groups in parallel in the same activities by adapting calendars, spaces, and teacher roles. Teachers of delocalized classes share cooperative educational practices such as "pairs aidants/peer supporters", "mentorat/mentoring" or "delocalized equipe" by using Video conferencing and Knowledge Forum.

"Classes on the net" model was tested for the first time in Italy in the Abruzzo small schools in the school year 2020/2021. The experimentation involved 12 small schools, 11 digital animators, 31 teachers, and 6 observers (school principals). This experimentation did not originate during COVID-19 to address the issues that the pandemic generated but was planned and started before the advent of emergency, obviously, the experimentation was influenced by COVID-19. The present paper, after the literature review concerning remoteness and parenting in small and rural schools and home-school partnership in rural educational settings, will introduce the "Classes on the net"

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model and present the focus group result held with parents. The focus group took into consideration parent-school relationship, parents and information and communication technology, and the involvement of parents in the research project and their opinion about it.

Remoteness and parenting in small and rural schools

"Small schools", characterized by a low number of pupils and located in rural areas and "difficult" territories, represent an important educational phenomenon of international interest. Rural areas present a great diversity in terms of topographic (e.g., islands, deserts, mountains, or plains), socio-cultural (e.g., lively or declining), and economic characteristics (e.g., stable, depressed, high growth, reborn rural or isolated areas) (Arnold et al., 2005; Showalter et al., 2017; OECD, 2019). Likewise, "rural schools" can show different characteristics, depending on the school or some other unit (e.g., the district or the municipality).

The topic of small and rural schools can be investigated from many perspectives in the context of educational research. Among the most important fields of study, it is worth mentioning the studies that focus on the relationship between school and territory (Corbett & White, 2014; Bartolini et al., 2021), and those that rethink the use of technologies and digital materiality to intervene in remote situations (Mangione & Cannella, 2020; Mangione & Calzone, 2020). Moreover, we must cite research that deepens the understanding of the benefits, such as small classes and proximity to the community (Barley & Brigham, 2008; Monk, 2007), and the drawbacks, such as difficulty in encouraging and retaining highly qualified teachers, multi-class management, geographical isolation, and the inclusion of children with special needs (Miller, 2012; Azano & Stewart, 2016). The literature recognizes rural schools as geographically isolated schools where the lack of teachers and educators does not allow for forms of school cooperation and partnerships to fully mature (Arnold, Newman, Gaddy & Dean, 2005; Howley & Howley, 2004). Rural schools have high teacher turnover, a high rate of inexperienced or poorly trained teachers, inadequate resources, and poor facilities (Jerald, 2002).

An Italian study has made it possible to understand how the distribution of small schools (involving about 9,000 buildings and over 500,000 students) equally affects all Italian regions. Such a phenomenon also involves plain and hill areas, up to the belts of large cities. In these contexts, primary and lower secondary schools are

identified as "small schools" when the number of students makes it difficult to guarantee the completion of an educational cycle. These schools are characterized in many cases by a multi-class organization.

The research work carried out over the years has made it possible to obtain for the first time in Italy an empirical definition (Bartolini et al., 2020) integrated with the historical dimension (Pruneri, 2018), with the geographical and territorial dimension present in the regulations, and, finally, with the numerical dimension analyzed by international studies (Grysti et al., 2020). Small schools in Italy are distributed throughout the country and represent 45.3% of all Italian primary schools and 21.7% of all lower secondary schools, with a significant presence in internal areas (Bartolini et al., 2020). They are particularly frequent in mountain areas, small islands, and all those inland areas characterized by low population density, often presenting critical socio-economic situations and difficulties due to isolation and distance from services (Bartolini et al., 2021).

An articulated picture emerges as small schools can be found not only in remote and isolated locations but also in the territories of "middle Italy" and even in town suburbs with problems of marginalization or in historical centers facing depopulation. In these educational contexts, the fundamental problem is that of cultural and geographical isolation. The origins can be traced back to the territorial positioning and a lack of interaction generated by the very low number of students. In addition, often it is impossible to connect classes and school buildings or even classes and house spaces for children with health problems due to the lack of transportation and viable roads to get to school (Hyry-Beihammer & Hascher, 2015).

Small schools located in rural, island, and mountain contexts face unique challenges associated with geographic isolation, racial segregation, and limited school and community resources (Johnson & Strange, 2007) that do not allow them to respond to the needs of specific groups (Sze, 2004). In these contexts, the idea of educational fragility emerges (du Plessis & Bailey 2000), and parents ask for interventions capable of supporting quality educational programs for their children. Services for families in remote, low-density locations frequently tend to be unavailable, inaccessible, or poor (DeLeon, Wakefield & Hagglund, 2003). The geographic and social contexts of remote communities often require schools to perform many functions in addition to their primary educational mission (National Education Association [NEA], 2008). Because of these problems, some of the benefits of collaboration can be particularly relevant for schools serving rural districts, where the ability to provide a broad educational curriculum and equal opportunities for all students, including those with special needs, may be limited.

Since school is a presidium of democracy, the reflections on the new *forme scolaire* and the educational method to valorise the concept of inclusion in rural areas are crucial. Remoteness and Distance education could be part of the curriculum of small rural schools to provide their students with the opportunity to have equal and quality education, as in "standard" schools (Mangione & Cannella, 2020; Mangione & Calzone 2020; Mangione & Cannella, 2021).

In this work, some forms of partnership between schools and parents are presented, as well as the difficulties that may intervene in "less frequency" compared to urban and suburban areas (Prater et al., 1997; Pieri & Repetto, 2020). Subsequently, with reference to the Italian experimentation of the Classes on the net model piloted in small schools in Abruzzo, the school-parent relationship is investigated along with the way this experience has affected the perception of parents in the school's capability to offer quality educational experiences in isolated territories.

The home–school partnership in rural educational settings

The importance of building –home-school relationships is also recognized in specific small schools' settings (Keith et al., 1996; Xu, 2004; Owens et al., 2008). Because of their social centrality within a community, rural schools are systematically in contact with families and can value their role in daily routines. In many cases, school buildings are places experienced by the community, cultural and sports centers. It is precisely in these contexts that practices and procedures emerge to uphold forms of covenant in support of the quality of educational processes and learning experiences (Witte & Sheridan, 2011; Mangione & Cannella 2021). The literature, precisely, focuses on the idea of a partnership between schools and parents to be part of the cultural fabric of rural areas. The concept of partnership implies sharing of roles and responsibilities, forms of cooperation in an environment where school and family engage in constructive connections (Semke & Sheridan, 2011).

Scientific studies have documented positive effects that result from parental participation in school activities (Fan & Chen, 2001; Pomerantz, Grolnick & Price, 2005) with a focus on the impacts on school motivation and attainment (Barley & Beesley, 2007) and also by detecting a decrease in dropout rates and student absenteeism levels, as well as in a less unruly behavior (Ma, Shen & Krenn, 2014; Semke & Sheridan, 2012; Venter, Joubert, & Chetty, 2014). Unfortunately, however, parents are not always present and able to accompany and assist their children with understanding school curricula and school life (Prater, Bermudez & Owens, 1997). As Grant and Ray

(2013) point out, parents who are engaged in their children's education tend to have a positive attitude toward schools and teachers.

But what types of collaboration are there? The existing literature distinguishes between three main modes of collaboration: *family involvement, family-school partnerships, and school-community partnerships* all of which are important to enhance the school's educational pathways and offerings (Semke & Sheridan, 2012).

The expression *Family involvement*, refers to active and meaningful openings by parents towards the school, and to a possible engagement in activities at home and in school that may help their children's learning and development process (Fantuzzo, Tighe & Childs, 2000). It is a multidimensional construct that recognizes multiple pathways through which families participate, by means of good communication, in supporting their children's learning. The goal of programmes that address family involvement is to devise new methods and tools to expand actions where parents play an active role in education.

The *family-school partnerships* term broadens the concept of family involvement to recognize the importance of open communication, healthy relationships, respect for differences, and shared power between families and schools (Henderson et al., 2007). Programmes that promote partnerships involve collaboration and cooperation among individuals at home and in school settings and articulate clear roles and shared responsibilities (Christenson & Sheridan, 2001). Family-school partnerships are concerned with fostering constructive connections and relationships, recognizing complementary roles between the two systems.

Eventually, when implemented, school-community partnerships go a step further and place an emphasis on engaging community resources to provide programmes and services that support families and their children's educational achievements.

The literature on educational policies (Myende & Nhlumayo, 2020) identifies two basic types of parental involvement in school life: activities that take place in the school and activities that take place at home but are always aimed at achieving children's educational goals. According to the authors, these two broad categories are to "embody" all patterns and types of connections between parents, schools and other individuals and community institutions they address to enhance children's learning. An in-depth study by Epstein (2004), enables further specification of such types of involvement:

- *Parenting*: this mode is mainly based on activities carried out at home with the aim to help the child cope with his or her school work.
- *Communicating*: parents and schools connect with each other to discuss issues affecting children in school or at home.
- *Volunteering*: this includes activities such as participating in recruiting teachers and school assistants, maintaining buildings and environments close to the school, and supporting teachers by supervising pupils during school and extra-curricular activities.
- *Learning at home*: parents are involved in ensuring children may continue to practice at home what they learn in school. This can be done by supervising them during homework or giving extra activities to make children better understand what they did at school.
- *Decision making*: the family takes part in school and administration-related decisions.
- *Collaborating with the community*: parents and teachers work together collaboratively, being engaged in activities aimed to improve children's learning and to define the use of resources.

In rural areas, family involvement requires overcoming a number of obstacles. Many families living in such a context are forced to travel a distance to access the most important and needed services, with little or no public transportation. In addition, parents and teachers report time and scheduling problems as inhibiting factors for parental involvement and home-school partnership activities (Kushman & Barnhardt, 2001; McBride, Bae & Wright, 2002). Sometimes, the absence of support from families is linked to the prejudice on the educational quality of multigrade contexts (Ronksley-Pavia, 2019), or to low literacy phenomena that prevent effective collaboration between parents and schools and negatively affect enrichment of curricular and extra-curricular experiences (Condy & Blease 2014; Parigi & Mangione 2023). Parent cooperation and participation in activities calls for a "culture of acceptance" and for developing a condition of trust promoted and facilitated by the school principal (Lewin & Luckin, 2010; King, 2012; Manzo, 2016). A collaboration strategy must take care of socioeconomic and cultural inequalities that can then have an impact on school-parent interactions (Brien & Stelmach, 2009; Manzo, 2016) also making use of technological solutions (Lewin & Luckin, 2010). Networks, also referring to the international experience "Classes on the net" carried out in Quebec, are seen by parents as a means of breaking the isolation of schools in rural areas and a way of working, which can empower families to intervene in their children's education while redefining the general perceptions of what innovative and quality schooling mean.

"Classes on the net" project

The "Classes on the net" model was born at the beginning of the new century in Quebec (Canada) thanks to École éloignée en Réseau (ÉÉR), a Quebec government initiative aimed not only to keep small schools alive, by exploiting the opportunities made available by information and communication technologies (ICT), but also, by enriching their educational environment and decreasing their level of isolation, to help these schools provide a service that meets the standards of other Quebec schools (Laferrière et al., 2012). "Classes on the net", at the basis of which is the pedagogical concept of knowledge-building community (Scardamalia & Bereiter, 2010, Cacciamani & Messina, 2011), is characterized by a shared teaching practice whose 'delocalized' classes are involved in a common disciplinary path that adapts calendars, spaces and teachers' roles (Mangione et al., 2021; Mangione & Pieri 2021).

The shared learning experience rests on the co-construction of knowledge (Dumont et al. 2010) and is based on three characterizing pedagogical principles (Mangione et al., 2021): the classroom as a learning community, problem-based teaching and the promotion of dialogue through ICT.

In the classroom as a learning community, all students, according to their specific aptitudes, actively participate in achieving the learning objective in an atmosphere of cooperation, respect, dialogue, and mutual help. Collective inquiry activities are promoted by teachers as they foster understanding and resolution of issues that teachers can relate to one or more disciplines.

The real focus of this model is studying authentic problems. Teaching by problems means engaging students on real problems while leaving room for their creativity and allowing them to deepen their individual and collective understanding of the topic. When involved in the study of a real and authentic problem, students are firstly invited to ask questions and express ideas regarding their understanding of the problem and, secondly, to improve and work all together on the seemingly most promising ideas to further understand, or even solve, the problem.

Teachers organized in hybrid classrooms (integrating physical and virtual spaces) share cooperative educational forms such as *peer aides, mentoring or delocalised teams* using virtual twinning environments, videoconferencing, and argumentation spaces (Mangione & Pieri 2021; Mangione et al., 2021). The physical classroom is transformed into a multitasking laboratory with corners specifically created for activities to be carried out on a rotating basis by students, which may allow for networked multi-classrooms, multi-classrooms connected with a homogeneous class, and class group (both classes) connected with an expert. The virtual classroom is characterized by the use of tools such as the Knowledge Forum (KF), an environ-

ment that allows them the construction of written discourse on ramifications, and videoconferencing, which encourages open class dialogue and reasoned discussion among students.

As regards the experimentation of the model in Italy, INDIRE in collaboration with the IUL Telematic University, L'école Eloignè en Reseau of Quebec and the USR Abruzzo, started in the school year 2020-2021 the pilot experimentation in small Italian schools of the "Classes on the net" model that had been already validated in the Canadian territory and considered useful for overcoming the educational limitations that occur in remoteness situations (Mangione & Cannella, 2020). The model has been tested in the Abruzzo small schools, Abruzzo is a region of Southern Italy with an area of 10,763 square km and a population of 1.3 million. Abruzzo is divided into a mountainous area in the west and a coastal area in the east with beaches on the Adriatic Sea. Nearly half of the Abruzzo's territory is protected through national parks and nature reserves. The experimentation involved 12 small schools, 11 digital animators, 31 teachers, and 6 observers (school principals). This experimentation did not originate during COVID-19 to address the issues that the pandemic generated but was planned and started before the advent of covid, obviously, the experimentation was influenced by COVID-19.

As for Italian schools, standard and rural, from March 2020 to the present, several steps have been taken to try to limit the spread of covid. After the initial closure of the school with the transition to distance education, measures have included such things as, for example, the use of masks, spacing within the school, a temporary return to distance education for the whole class, and teaching with some students in the classroom and others connected from home. The experimentation of the model initially included some in-person activities but took place almost entirely at a distance.

The experimentation required an initial laboratory training phase aimed at the teachers of the selected schools, divided into key educational episodes: the training of digital animators and teachers, the design of shared teaching experiences by clusters of twinned schools and the implementation of classrooms in twinned networks. Once the training phase for digital animators and teachers had been completed, four macro-groups were set up on themes capable of making primary and secondary schools work vertically. The groups focused on the following projects: 1. *E quindi uscimmo a riveder le stelle* (And so we went out to see the stars again), 2. *Le Piazze: i luoghi del cuore* (Squares: the places of the heart), 3. *About our story...raccontiamo i nostri paesi* (let's tell about our villages) and 4. *Storie di ordinaria (IN) DIFFERENZA* (Telling about our countries and Stories of ordinary (IN) DIFFERENCE).

The project was an integral part of school activities, was carried out during school hours, and involved the collaboration of children of different ages, in some projects primary school children worked with secondary school children. Both local communities and families actively took part in the work activity promoted within these four macro-groups. Parents, for example, participated in the classroom activity by telling the students about their life and professional experiences and managed to support the children with their homework. As in the Stories of Ordinary (IN) DIFFERENCE project, a parent told pupils and teachers his story of immigration. Local communities contributed with their own resources, such as historical documents, and by opening up local places of interest for the children.

Methodology

In order to make an initial assessment of the "Classes on the net" experience, highlighting both the elements of interest and any critical issues, five focus groups were held at the end of the school year 2020-2021: two with teachers (4 and 5), two with students (6 and 7) and one with parents (5).

The focus groups were recorded and documented through field notes. In line with the principles of Grounded Theory, the content analysis was then carried out (Glaser & Strauss, 1967). Three independent judges identified the relevant topics, assigned a different symbol for each topic, unified the topics into macro-categories, discussed and interpreted the results, considered the observations of both moderator and observer, and assessed the results.

In the focus involving parents, we started investigating the school-parent relationship (What is the nature of the relationship between school and parents? What is this school characterized by? What opportunities does it give to your children? What would you expect to have from this school, how would you like it to be?), the role of ICT in the educational process (How much familiar are you with ICT? Do you think ICT plays a positive role in your children's education? Do you think ICT widens the possibilities of dialogue between school and family? In your opinion, does ICT make it possible for children living in peripheral areas to overcome their feeling of isolation?) and, finally, parents' opinions on the "Classes on the net" project (How did you, as parents, experience the "Classes on the net" project? Did you get involved? If so, in what form? Do you think the experience was innovative from an educational point of view? Why? What do you think of the tools used (Webex and KF)? Did you manage to help your children with them? What do you think of distance cooperation among classes from schools that are distant from each other? What do you think of the collaboration between multigrade classes? Would you like networked classes to

become part of your children's school teaching? If your children were to repeat the experience, would you change anything? If so, what? And for what reason?).

In the following section, the main results of the focus group involving parents will be presented. The results are presented and organized into the three macro areas of focus: parent-school relationship, information and communication technology, and the "Classes on the net" project.

Main results
Parent-school relationship

As far as relationships between parents and schools are concerned, the participants in the focus groups believe these are generally good with the school, and specifically optimal with teachers. Parents particularly appreciate the way of communication with teachers, which is constant and held at a good level, and the fact that the school offers students and their families a variety of opportunities such as, for example, the "Classes on the net" project. Moreover, they report that teachers are very open to innovation, "*the relationship with teachers and school is good, there's always a lot of communication and many good opportunities are given, i.e. like the present one, this new project done, so we are very satisfied with this relationship, with both the school and the teachers above all*", "*there's a good relationship with the teachers who are always open to innovation.*" Notably, parents emphasize how, during Distance Learning (DAD) time due to the pandemic, teachers were always very helpful and positive, and managed not only to ensure the continuation of teaching activity but also to keep the students' enthusiasm alive, "*especially in the last two years with remote learning, while we all had to face with many problems, school teachers proved to be a step ahead, they were immediately ready to take charge of the situation and these projects kept our school alive over the past two years. My child daughter still showed enthusiasm in carrying out assigned tasks, while her teachers were very proactive.*"

According to the involved parents, because of the small size of the school and the area where this is based, communication with teachers is helped, "*this is a small reality, so school teachers are always available, at any time and for any problem, also with our children.*"

Parents believe that in their school-home relationship there is nothing to change and argue that a parent is to a distinct part from a teacher's role "*everyone has their own roles, in school there are teachers. [...] They are to be a mainstay for the child at school.*" Parents and teachers have different but complementary tasks, and for the child to grow up harmoniously it is essential that home and school headed in the same direc-

tion and communicated with each other "*parents can observe their behavior at home and try to guide them towards what they think is right for them, their lifestyle, their way of seeing things. The school is to take care of them in the school environment as for the ways in which children relate to their classmates and to the school community, and therefore, in addition to didactics, it has to teach them how to behave in that community. Certainly school and family need to be linked together because if they were separated or if they did not go hand in hand, pupils would not easily understand and learn all that they are to learn and would therefore go astray. In my opinion, education should always include a kind of cooperation between school and family.*"

Relationships and cooperation between home and school need to be based on respect and dialogue. "*Above all, not to question what the teacher says, that is never to undermine the teacher's credibility at home, or when in doubt, talk to the teacher about that. So refraining from discrediting the teacher in front of the children is the most important thing to me. The reason is maybe that my mother is a teacher.*"

Information and communication technology

Regarding their relationship with ICT, the interviewed parents underline that during the pandemic, and the following remote learning, they enhanced their digital skills by trial and error, and also with the help of their children and teachers "*it is through them [our children] that we are learning now, it is they who teach us* ", "*I used to be really bad at it, so all that I learned is to my daughters, they all taught me a lot of in the last two years.*", "*it was easy for me to start using applications like Google Meet, and other new programmes, since teachers showed us how to do. Even just downloading digital files was not something we were asked to do very often before, and we can do it easily now because all teachers were so good at explaining to us how it works.*"

With regard to technological equipment, while at the start of the pandemic not all homes were equipped with a computer for each school-age child and a Wi-Fi network, now, as a result of the distance education (DAD) they are," *having Wi-Fi inside the house was not even envisaged, but then with DAD we were obliged to use it.*"

Parents appreciate the use of ICT in education and believe that it can '*help children in their assignments*', pointing out that without ICT it would have been very difficult for them to carry out educational tasks during the pandemic "*In such a period [of pandemic] it was indispensable. Fortunately, there is technology.*"

Parents, in their view, highlight that the way in which ICT is used by the children is very important *('You always have to use it in the right way, though')* and control is crucial in this respect: "*Control must never be lacking. We experienced such situations*

with friends' children who, whether using technology on their own, were not able to do it the right way. So, I would let them use it to learn - to say, you learn by your mistakes - but always under supervision. ". Such control should be exercised by parents at home and by teachers at school, "*it is important to supervise children while using all these devices, such control must always be made by parents when [the child] is at home and teachers if they are at school.*". In addition to controlling, rules are very important, and parents welcomed the fact that teachers set rules regarding the use of ICTs "*at school they imposed rules, even for utilizing Nintendo Switch games. They explained to the pupils anything about captions and rules, the recommended age to use them, what type of game it is, and whether they show scary images. After that, my child could tell me much more information on those games than I could have ever told him.*"

Schools and homes are to share rules on the use of ICTs so to ensure consistency and continuity between them. Furthermore, parents claimed that during the pandemic, ICTs also helped their children to keep relationships with peers, both classmates and friends, and to cope with physical isolation during the lockdown, "*during the pandemic my daughters exploited technology, in fact they rightly felt isolated, but thanks to video calls they could meet or see their friends*", "*connecting with the classmates gave them the opportunity to confront each other, to see the other children who were living the same situation.*"

The participants in the focus group believe that the use of ICT in home-school communication, on the one hand, is convenient, e.g. doing an interview remotely takes less time than going to school and having the interview in person, as well as through the electronic register they are allowed to constantly monitor their children's school progress. On the other hand, parents regret face-to-face meetings with teachers as they were 'nicer' and foster a 'more direct relationship' between teachers and parents than ICT-mediated meetings, e.g. Google Meet. For the post-pandemic, parents would opt for a 'mix' between presence, more, and distance, less, in parent-school communication "*most of the time in person and sometimes online would be ideal*".

The "Classes on the net project"

Parents in several cases during the focus emphasize the fact that their children repeatedly expressed enthusiasm for the project within their families, "*My daughter then told me a lot about it because she was so into it.*" Parents, who were not engaged with the work, participated with their children in the early stages of the work such as creating an account, joining KF, and explaining how KF and the videoconferencing system work "*Well, when they were doing remote learning [DAD] we were involved into creating an account, following the first steps, logging into knowledge forum. [...] so I had to learn along with my child because I didn't know how to do it.*" Children who had parents

at work were supported by other family members such as, for example, older siblings, "*I experienced it very little because I was at work, to be honest, my older daughter helped him create the account.*"

All pupils acted most of the time being guided and supported by their teachers and without asking family members for help. They only got their family members involved, both parents and grandparents, at some stages of the group work such as, for example, when they were asked to create a postcard aimed to collect donations for a school in Tanzania ("*when she was to help with the postcard project, coming up with an idea to encourage people to raise money for charity, then she consulted with us a bit by asking: shall I do that way? Or the other way? Do you like it?*"), or to find out information related to places of interest in the area ("*they asked us to tell them more about a square: how it was in grandparents' time, whether they used to use the square differently from today, they mostly involved their grandparents on that point.*").

Some working parents regret that they were not able to contribute more to this project, and to other school projects in general, due to their lack of time "*Unfortunately, the little involvement shown is consequential to my working activity and its established timetables that make a further commitment too demanding.", "I would really like to participate more with my daughter in the projects. [...] It's not always easy to keep up with their work schedules. So, possibly, this problem makes them autonomous. Otherwise, I would love to participate.*" Parents aside from the lack of time did not point out any other challenges related to the project.

Parents consider the "Classes on the net" project to have been educationally innovative, for several reasons:

– pupils learned how to use technologies that were completely new to them "*in Lucrezia's case it was also useful because she got to know new platforms, in fact she learned how to connect to new platforms used for the project. So it was definitely very interesting". "Alessandro was also very involved, it was also nice to use a new platform and meet with other schools. So using new devices was a different kind of experience, definitely good for the child and for us too.*" Parents recount that, thanks to the teachers' guidance, their children easily learned to use new technologies supporting the "Classes on the net" project, KF, and the videoconferencing system, "*Lucrezia was able to move within the platform very well, with mastery. As for me, I still find it rather enigmatic. But I see that properly guided by their teachers, our children were able to use these platforms perfectly"; at first I found it indecipherable, then, with the help of teachers, everything seemed easier. In any case, my child was*

able to use it on her own without any problems, and was still relying on their teachers' assistance to move in both Classroom and platform."

- ICTs encouraged collaboration among pupils from different schools in the area "*I found it interesting that they could confront other schools, and I realize that without technology they would not have been able to do that, to engage themselves with that. Instead, technology allows them to break down barriers and meet with other realities, with classmates from different schools". "I really liked this aspect, being able to relate to other classes, other countries, other realities, precisely because they live in a small village, they have the opportunity to become aware of the world outside their own small world, and to broaden their mental horizons". "Thanks to technology, first of all, they were able to get to know children from other places and then they shared the same topics but approached them according to different traditions".*

- school children, through ICT, dealt with traditional topics ("*In an innovative way, because even if it's true that they dealt with a, let's say, common topic, since they were asked to look back at old traditions, to explore the different ways their places were lived in the past, at the same time, they were able to use new systems that otherwise they wouldn't have used*") and sensitive topics ("*it was definitely innovative because it dealt with delicate topics as indifference, or also the Jews. Yet, they had the chance to learn about these topics in a slightly more dynamic way by doing it through the platform*") in a completely new, dynamic, and engaging way.

- pupils worked with children of different ages. Parents believe that working with kids of different ages is beneficial for both older and younger pupils, "*In my opinion, working with kids of different ages may act as a spur for them, because they relate to each other, they also help each other. This is a kind of purposeful cooperation, "It is also good to the extent that if they have to help younger pupils, they feel more empowered. Actually, there is a kind of responsibility for both of them: the older one will have to help the younger one to carry out tasks, and the younger one will have to follow the example of the older one."*

Parents hope that the "Classes on the net" model would become part of their children's daily schooling, seeing it as a real "added value" that put the student at the center, relied on the active participation of students, and succeeded in enthusing and interesting them. "*In my opinion [this project] was an added value, and so certainly it would be nice if they promoted other projects within the daily school activity, as part of the school timetable, not as an extra. "In my opinion, it was a nice project, so definitely an added value," "Besides studying classical subjects, doing this project is also an added value." "After seeing the enthusiasm lavished by my child in the project, which involved*

her very much, I think that if done in the right way, in the way which it was planned, it is definitely an added value for the children." "Because of the importance my child got in the project and her great involvement, my opinion can only be positive!"

Research perspectives

Despite the pandemic has had worldwide impacts on the situation of fragility and inequity of distance-education solutions for "rural learners" (EAC, 2020) the "Classes on the net" experience helped consolidate the school-family relationship by enhancing parents' ability to accompany their children during their course of study and learning. This allowed us to understand the innovative scope of the tested model in terms of working for open and multi-age classes, to build around the major themes of cross-curricular and interdisciplinary paths.

The "plural" dimension, already established in Quebec, will be further explored in order to define an educational model capable of enhancing the parental component with a view to interprofessionalism (Cheminais, 2009; Cannella & Mangione, 2022) that connects the school with the territory, family-school relationships, which unite parents, teachers and educators, promote shared responsibility for children's scholastic achievement, and are fundamental when it comes to addressing students' needs (Henderson et al., 2007) and fostering their school attainment in rural settings.

More recently, UNESCO in "Reimagining our Futures Together" also pays attention to the new educational contract, emphasizing its social dimension: "*In a new social contract for education, teachers must be at the centre and their profession revalued and reimagined as a collaborative endeavour which sparks new knowledge to bring about educational and social transformation*". (UNESCO, 2021 p. 80)

As indicated in Instance and Paniagua (2019) there are numerous arguments in favor of the social contract, and which can benefit from the active participation of parents in the teaching process.
One of the most important, especially in peripheral territories, is linked to the idea that working with a network of professionals, including parents, can help compensate for the lack of teachers, especially in disadvantaged or more fragile areas such as those in which the small schools insist.
A second recurring motivation is linked to the idea that involving adults in taking care of the teaching and learning process can help teachers plan personalized activities for class groups such as, for example, recovery and strengthening actions.
Finally, a third argument in favor of a social educational contract participated by families is the enrichment of the training offer and the diversification of teaching and

thematic study. Re-imagining the education work team by including a wide range of professionals in the school community (experts, parents, university students) triggers an acceleration in pedagogical transformations while requiring a greater commitment in terms of interprofessionalism in both planning and implementation and evaluation.

Improving the availability of and access to intersystem (family-school) supports is a goal to be monitored and achieved as part of the experimentation with the "Classes on the net" model, with the ultimate objective of improving the quality of education in rural contexts, overcoming situations of remoteness (Mangione & Cannella, 2020) and deeming the school as innovative in the eyes of the community (Barley & Beesley, 2007; Lowe, 2006).

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