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## The Vision of Spanish Schools in Post-Pandemic Times

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**Abstract.** Extraordinary measures were required due to Covid-19, such as confinement and emergency distance education. With health regulations in place, the schools then returned to face-to-face instruction and used the lessons they had learned to improve the teaching standard. The study's intention is to investigate how Spain's schools are evolving post-confinement, with a particular interest in the digitalization of schools, teaching competence and future models of education. Method: The approach was qualitative; the instrument was a semi-structured interview, constructed *ad hoc* by experts and applied by trained interviewers. The sample consisted of 75 principals or members of management teams from primary and secondary schools in Spain. We carried data coding and analysis out using Atlas.ti software. Results: The confinement led to difficulties in adapting teaching to the online modality. Using the pandemic as a catalyst, schools were able to quickly move to digitalization, expand teacher training in digital technology with varying levels of compliance, and introduce new methodologies such as active learning strategies. Conclusions: Schools in Spain have introduced

changes in their technological processes and equipment and slight methodological aspects. Teachers require more training on teaching skills, especially digital skills. Finally, the traditional face-to-face model is valued but is questioned and alternatives are considered.

**Keywords:** post-confinement Covid-19; school principals; digital competence; digitalization; teaching

## 1. Introduction

On March 11, 2020, the World Health Organization (WHO) determined in its assessment that COVID-19 can be characterized as a pandemic (WHO, 2020), with the urgent need to implement global health measures, causing significant changes in several sectors, including education. 197 countries closed schools in some periods in 2020 (UNESCO, 2022); over 290 million students had to study at home (UNESCO, 2020) and schools organized contingency plans to serve students.

Initially, distance education with technology as a necessary instrument (Palau et al., 2021) became the model used by most education systems (Taglietti et al., 2021). The term emergency remote learning is fitting for the education that occurs during confinement since it doesn't comply with any of the parameters displayed in (Bates, 2020; Hodges et al., 2020; Prestridge et al., 2019). As Crawford et al. (2020) points out, migration from traditional to virtual and online learning cannot be done overnight. After the control of the pandemic, the schools reopening began as priority of educational authorities, because of educational and economic needs (Reimers & Schleicher, 2020).

In this context, emergent research has focused on studying the educational environment at the beginning of the pandemic, and even during the return to school. However, it is necessary to know how schools are developing after the crisis, post confinement, and how are facing the future, in terms of pedagogical, digital, organizational, communication practices, etc. The efforts made by administrations, educational institutions and teachers can serve as a starting point for the transformation and modernization of the education. To do this, it is necessary to take advantage of the knowledge and experience achieved in this pandemic, which has been an experiment that otherwise would not have been possible to carry out (Palau & Santiago, 2022).

## 2. Literatures review

During the crisis, schools and educational establishments had to adapt to the circumstances with an unprecedented effort of innovation (Marinoni et al., 2020) with a lack of infrastructure and technology (Lorente et al., 2020), although some took advantage of this as an opportunity for change and innovation (Delcker & Ifenthaler, 2021). There have been differences between schools in urban and rural environments (Zhang et al., 2020) and differences between online resources for their students in private or public schools (Bonal & González, 2020). Implementing uniform teaching and learning strategies during the COVID-19 lockdown would not be successful without considering the infrastructure and economic conditions specific to each geographical location (Nhongo & Siziba, 2022). On the other hand, the pandemic has been an opportunity to open schools

to the outside world according to the Organisation for Economic Cooperation and Development (OECD) (OECD, 2020).

At the national level, the sanitary measures affected almost 10 million pupils in Spain (Consejo Escolar de Estado, 2021) (State School Council). It was one of the countries with the fewest school days closed (UNESCO, 2022). Emergency practices were improvised (Zubillaga & Cortázar, 2020). They had to prepare or think about different scenarios, such as those proposed (Zubillaga & Cortázar, 2020). The system had a great challenge and had to adapt, although questioning the teaching function and the entire educational system (Palau et al., 2021; Trujillo-Sáez et al., 2020).

According to Fernández-Enguita (2020), the rapid change from the face-to-face model to the online model reveals the existence of three gaps: one of access, one of use, and one of schooling. The social composition of Spanish schools differs from the social reality of neighbourhoods and municipalities (Murillo & Martínez-Garrido, 2018). These inequalities already existed before this health crisis but following its irruption they have increased (Blainey et al., 2020; Trujillo et al., 2020; Aznar-Sala, 2020; Jacovkis & Tarabini, 2021; Moreno-Olmedilla et.al, 2020), because of this health crisis with economic effects and may increase the risk of school dropout (OECD, 2021). Students coming from families with low educational attainment and who receiving social benefits (Maldonado & De Witte, 2022) or from social disadvantaged backgrounds (Ali, 2020) or educational need or disability (Crawford et al., 2020) they were the least connected to online classes and had the most negative effects, considering that one of barriers to inequality is student access to technology (Bozkurt & Sharma, 2020; Bayham & Fenichel, 2020). Students' families faced the obligation to care for their children at home (Mari et al., 2021) by participating in their children's learning processes (Palau et al., 2021).

The students were severely affected. Several studies (Bartlett et al., 2020; Gassman-Pines et al., 2020; UNICEF, 2020) point to great harm to emotional well-being. Reports such as the OECD (2021) indicate impairment of academic performance; Lopres et al. (2023) found that student motivation and engagement in online learning were significantly affected.

Teachers have been central to this pandemic (Palau et al., 2021) and this had a personal and professional impact. They have also been affected psychologically (Bassok et al., 2020), with stress (Kraft & Simon, 2021) because of the difficulty and frustration of emergency online teaching (Bayham & Fenichel, 2020), by the lack of specific training on digital teacher competence (Crawford et al., 2020), coupled with their own confinement and personal and family needs (Palau et al., 2021).

Lack of teacher training is also related to the limited use of scientific evidence to improve their practice or as a driver of their innovation and improvement (European Comission, 2021), although this has not prevented them from being ahead of the administrations in many of the actions taken during confinement and post-confinement. Some reports (OECD, 2020) have pointed out the need to rethink the continuous training of teachers focused on the affective and

motivational skills, in adaptability, in collaborative work, and in the learning to learn, rather than merely instrumental skills to promote resilience of schools and the educational system itself.

The pandemic has provided an opportunity to boost the digitization of education systems (Díez Gutiérrez & Gajardo Espinoza, 2020). However, it should be considered that the successful use of technology in education depends on the attitude and acceptance of teacher (Yuen & Ma, 2008). Therefore, plans for technology implementation should be designed and implemented with the teacher factor in mind. Bonal and González (2020) believes that administrations should bring digital educational resources closer to teachers, especially in the post-pandemic era. At the same time, it should make efforts to organize and systematize existing digital resources, which are many and diverse, rather than generating new resources.

The main aim of this study was to analyse how schools in Spain are developing post-confinement, with a special focus on the digitalization of schools, teaching competence, and future models of education through the principals' voices in an in-depth and systematic way. This work was based on the following research questions:

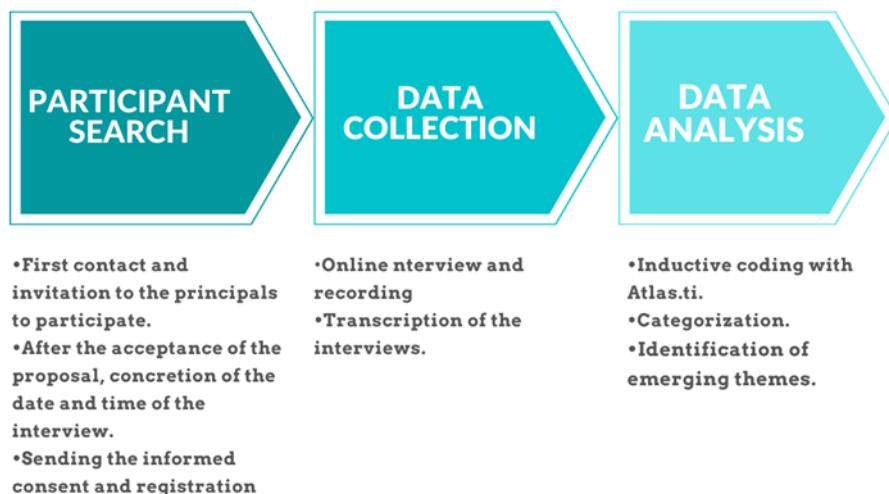
1. What changes have been introduced in schools in terms of equipment/infrastructure, teaching-learning methodology and organizational and communication processes?
2. How have teachers adapted in relation to digital competence?
3. Are other educational models, alternative to the traditional face-to-face, being considered?

### **3. Method**

This research was carried out with members of management teams of Primary (6-12 years) and Secondary schools (12-16 years), belonging to the 3 types of financing modalities: private, subsidized, and public throughout Spain. The sample was by convenience, only limited by their voluntary availability to participate. They were contacted by mail or telephone to invite them to participate, using contact networks. A convenience sample has the disadvantage of being easy to obtain and inexpensive, but it can also bias the results by not representing the entire population or subgroup of interest (Emerson, 2015).

The methodology was qualitative because of the aim of obtaining a deep understanding of the perceptions of management teams focused on acquiring a greater knowledge of social situations (Denzin & Lincoln, 2011).

The following diagram, Figure 1, presents the steps involved in conducting this study:



**Figure 1: Phases of the study.**

Data collection was conducted through semi-structured interviews where participants' experiences and tacit knowledge were collected, providing detailed information on specific phenomena (Kvale & Brinkmann, 2009). A semi-structured interview approach was chosen to enable analysis of the investigated problem by documenting participants' experiences (Minichiello, 1990; Braun & Clarke, 2006). The interviews included main themes for discussion, using open-ended questions, and allowed participants to speak in depth. The interview questions were related to teaching - learning processes and changes observed from confinement Interview guidelines should be adjusted to the purpose of the study, each question contributes to one of the main objectives: Digitalization (a), adaptation to digital competence (b), future education (c). (see Table 1).

**Table 1: Interview questions: content and order of formulation**

1. (a) What changes has the pandemic caused by covid-19 brought about in your school?
2. (a) Regarding these aspects: organizational, communicative, digitalization, resources, digital contents, strategies, methodological aspects, evaluation, and teacher training, what measures has your school implemented after the confinement?
3. (a) Which changes do you think worked well? And what criteria do you use to evaluate the level of performance?
4. (a) How did the confinement and the situation you experienced affect the teachers at your school?
5. (b) What changes in the level of use of technology and methodologies have they incorporated?
6. (b) What constraints have teachers encountered? What contradictions and controversies have they experienced? And what opportunities have arisen?
7. (b) Have teachers been trained in any way?
8. (b) How do you assess the digital teaching competence of the school's teachers during confinement or post-confinement?
9. (b) Had there been an objective diagnosis to support this judgement?
10. (c) Do you think that these technological and methodological changes made during confinement and post-confinement will change the future teaching-learning processes in your school and the training of the teachers and that of the technological resources?

The instrument's reliability was preserved by providing brief training to the interviewers, developing a standardized protocol with instructions and questions, and recording the interviews for later evaluation of protocol consistency among different interviewers. Regarding validity, the elaboration of the questions was collaborative among a group of experts, based on the research objectives.

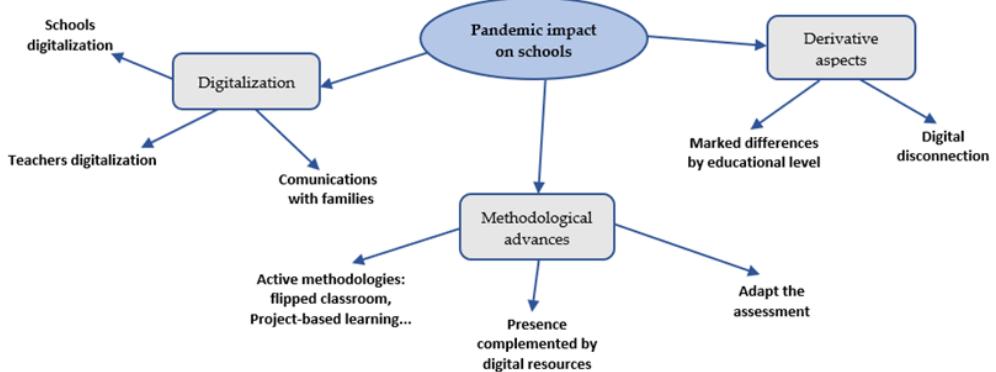
75 interviews were conducted online between April and October 2021, of which 73 were finally analysed with a duration of one hour. 12 were Primary schools, 9 were Secondary schools, and the rest were schools with both educational stages. 16 were public, 27 were subsidized and 32 were private. By Spanish autonomous communities: 5 were from Andalusia, 1 from Aragon, 9 from Castile and Leon, 2 from Navarra, 18 from the Valencian Community, 1 from Galicia, 36 from the Community of Madrid, 2 from Murcia, and 1 from the Basque Country.

The interviews were coded and analysed using Atlas.ti qualitative data analysis software. The analysis comprised a coding process, comparing codes and identifying emerging themes. A thematic analysis approach (Braun & Clarke, 2006) was used to make sense of the data collected during the research. This approach was chosen because it allows in-depth analysis, explanation of the data and creation of key themes by the participants.

#### **4. Results**

The first moments of pandemic, from the strict confinement declared in Spain in March 2020, there is unanimity in the perceptions. They refer extensively to the difficulties encountered by having to adapt the teaching to online systems suddenly, without prior notice. The challenge was considerable and as a result there was an overload of work, difficulties for certain teachers to conduct their classes efficiently, new coordination needs, emotional management needs, among other elementary issues. They reiterated the need for teachers to invest a disproportionate effort and hours attending to the teaching task.

After this episode we found similarities and marked differences, in terms of the impact of the experiences. Several key themes emerged from the analysis of the interviews. These can be grouped into digitalization (school and teachers), new communication channels (especially with families), and the debate on future teaching models (highlighting the value of face-to-face teaching without ruling out enriching the model, methodological and strategic advances, special attention is paid to how they handle evaluation, and emphasis on differentiation by age). In addition, they highlight other derived aspects. Below we present the results based on the themes visualized in Figure 2.



**Figure 2. Pandemic impact on schools.**

#### 4.1. Digitalization

##### 4.1.1. Schools' digitalization

The situation has changed the schools. As one interviewee says: "What the pandemic has brought is the need for ingenuity" Participant 20 (P20). The main strategic changes are reflected in the technological endowment of physical technological resources, the boom in the digitization of content and processes by schools and teaching teams.

There is a clear tendency in the responses to emphasize that the pandemic has represented an opportunity to speed up the process of digitization of the schools. This can be read in terms of the fact that many of these schools had already previously started actions, and now they have found that their policies to reinforce digital resources and connectivity have been digital resources and connectivity. In any case, there is unanimous agreement that there are changes that are here to stay. Teaching is now unquestionably delivered using more digital resources than before the pandemic.

*"Yes, there has been an expansion of digital content. We were already in that process many years ago. We have had to use digital tools much more, use them better, above all the criterion has been speed". (P21)*

Many schools point out that now they have better connections than before the pandemic, especially by reinforcing the Wi-Fi network, and many schools are betting on more physical technology, even with strategies of a digital device for each student (in cases that had not been considered before the pandemic). Abandoning paper is the main action reported by most in terms of digitization.

*"We have become more digital, we have already abandoned paper, that has been a change. No more paper exams, no more paper report cards. We have made that leap and those changes that have started this course have started after the confinement". (P06)*

The distribution of spaces is another issue that is often mentioned, as there has been relocation of spaces and the teaching staff did not share the teacher's classroom.

#### *4.1.2. Teachers' digitalization*

There is considerable heterogeneity in terms of teachers' digital competency and how teachers have adapted to technological solutions because of the needs forced by the pandemic situation. This heterogeneity is perceived in all geographic territories, at all educational levels studied and at all levels of education studied and in all types of schools. The most common finding is the predisposition according to the age of the teachers, with those close to retirement being the least proactive in adapting during the confinement, while younger faculty to be more likely to adapt to new technology-based environments and resources.

Some schools, such as P25, reported that "in the digital realm, there are several tools that were not used because our education is face-to-face, 100% face-to-face". In other words, in their teaching activity prior to the pandemic, they had not given digital tools the relevance that they later discovered they could have.

It is noteworthy that many people remarked that the pandemic represented a forced occasion to encourage faculty training in using digital technologies and, as a result, many teachers have better management of virtual environments learning and other digital resources. In addition, although they had already been using digital tools, they now recognize that they have improved their skills and make more efficient use of technology.

*"We learned to make much more profitable use of all these digital tools. The teachers are much more competent, and this is demonstrated by them daily in the teaching they give in their classes, more competent at the digital level, they have greater digital competence, and they feel more confident for being able to apply or implement both online teaching and hybrid teaching, if they need it."* (P03)

This empowerment could have come from specific training or directly from intensive use and subsequent learning from experimentation" (P26) and through trial-and-error. (P17)

In general, the digitization carried out during the confinement is going to endure in the organizational culture of numerous schools, as confirmed by the principals.

*"There are many tools that we used and implemented in confinement that later served us."* (P03)

*"We do not educate as it was educated 2 years ago, we educate totally differently, everything that is the digital part is being implemented more and more within the natural development of the classes, depending on the subjects."* (P63)

#### *4.1.3. Communication with families*

Communication by telematic way is a common theme to assess the impact of the pandemic on the changes adopted in the schools. During times of confinement, it intensified this modality to follow up on students, to bring the faculty together and to hold strategic and coordination meetings. The people interviewed report, even without being specifically asked about it, that the main effect that the pandemic period had on communication with families. Communication has been a necessity to be addressed and has had a significant impact.

In most cases, they value it as an adaptation that was promoted with the initial confinement but will endure over time because of the benefits it brings, mainly with the flexibility and ease of time management.

*"It is unnecessary to be looking for days for a time to meet with a parent who works from sunrise to sunset, when you can attend to him perfectly well in a video call." (P04)*

The tutoring with families is a positive experience and I think it is here to stay. This year, also to comply with the protocols, we have been doing them online, and it has been very positive for all the families, because what they tell us is "hey look, during a break at work, I take my cell phone and I connect" (P01).

Other interviewers reported benefits of online meetings with parents that it can establish a better order and development of conversations.

*"Being in a room with 25 people is terribly difficult, there are a lot of ruckuses. You spend the whole afternoon, and they are not productive meetings. By videoconference it is very clear, everyone is muted and only the person whose turn it is speaking. There are things that must come to stay, that is the opportunity that I see right now". (P04)*

## 4.2. Methodological advances

### 4.2.1. Face-to-face as a standard for education

Physical presence is highly valued. There are directors who defend only a face-to-face model (especially in schools that work with special casuistic such as P03, a Special Education school), although they value the incorporation of ICT (Information and Communication Technologies). Other principals are in favour of a rethinking towards a hybrid model in a more sustained way, but always insisting that one of the main values of the educational schools is a place of face-to-face socialization to lead to better learning, also in dimensions such as emotional.

At the lowest levels, contact, face-to-face training is irreplaceable. The teaching must be face-to-face. It cannot be substituted by distance learning; "I think that is better at other levels". (P02)

There is no doubt, however, that the experience lived has left its mark, and they planned new mechanisms to maintain attendance, including tele-attendance in the event of eventual absences, enabling hybrid class systems:

*"Online was the best solution to everything and yes, it is a good solution when there is not, but I insist that we have worked for it. [...] The good functioning lies in using all the tools at our disposal in a mixed way. [...] Digital learning can never replace face-to-face learning with student-teacher contact, but indeed everything has changed and is here to stay". (P75)*

Three principals also pointed out that it is better to have all the students in the classroom and, if it is not possible, to have them all online. Having both in-person and online students simultaneously doesn't seem to work well.

One opportunity that some schools point out, and that can be glimpsed in some others, is that there are students who can benefit from methodologies using ICT (even virtualizing classes).

*"I had disruptive kids, ADHD, and others, who were better off online at home than in the classroom, but by far, abysmally, they were better off online at home than in the classroom, but by far, abysmally. Three kids who saved the course because of confinement, but not because the exams were easier, but perhaps because they were at home with their parents, they handed in their homework every day and were attentive in class".* (P64)

In any case, no one imagines Primary and Secondary education without face-to-face modality:

*"Although you have not asked me, there is something that we have lost and that we want to recover soon, what is the warmth of human relationships, it is not only giving a kiss, or giving a hug, or congratulating; being able to have other types of encounters. In a collective such as Education, taking care of relationships does a lot so that the environment is adequate, we must feel welcomed, we must support each other. It has cut all this off".* (P12)

#### 4.2.2. Resources

Certain schools insist that before the pandemic they had already started digitization processes and, therefore, methodologically, it has not represented an impact.

*"At the methodological level, there really has been little change, because as I said, it is a school that we had been doing many things for a long time".* (P51)

However, in most of the schools, there has been an evolution. Among the main methodological changes is the adoption of active methodologies such as the flipped classroom, project work, or the monitoring of learning diaries. In this way, teachers can redistribute their dedication and can maintain student learning in a more significant way without the need to invest so much professional dedication outside the timetable.

*"We started to change that paradigm of how we teach. We really faced it this way, we said "this is an opportunity to make a leap in using active methodologies".* (P06)

*"In the pedagogical aspect, we are incorporating electronic tools that we were not using before".* (P43)

One of the main limitations suffered at the methodological level is that to respect health measures, group activities have had to be limited and this is a detriment to the educational dynamics.

The limitation of not being able to work more in groups is very generalized, and some schools have even relativized the health prevention regulations so as not to harm the pedagogical practices that work:

*"We work in teams of four students. We had to put them in a line. Although, to tell you the truth, as the course progressed, and we saw nothing was happening, we gave the children a bit of a chance. We saw that, with the windows open, the doors open, we could continue working as a group. In the end, the children in the courtyard touch each other and come together. So, in class, in the last trimester, we worked more in groups". (P23)*

It should also be noted that the teacher has the responsibility to know how to use new methodologies and digital resources appropriately, since the students themselves do not get an academic benefit from their technological or digital knowledge.

*"Children, in general, are used to new technologies, but only for leisure use, it seems that we think they know how to do everything with the iPad, or with any digital tool, but in the end, what is really important or what has to do more with the academic subject, they fall a little short". (P25)*

In general, there is unanimous agreement that education was already trying to adapt to the needs of today's society, with the resources that exist, and the pandemic has been revulsive.

#### 4.2.3. Adapting the evaluation

Remarkably, numerous schools where interviews have been conducted have been able to report an adaptation of the evaluation systems, but many others have not. In the negative cases, the cause responds to two main casuistries: On the one hand, there are schools that already had digitized evaluation tools and, regardless of the health situation, have been able to maintain their usual activity in this area. There are schools that we are not prepared for, and the most common thing is that they recognize they are still not ready and must seek new evaluation strategies.

Even in certain schools, there is a frontal opposition to allowing the change towards new evaluation systems that do not contemplate face-to-face attendance:

*"We have said that the evaluation is always face-to-face, although there were a couple of examples at the beginning of the course in which they did not want to attend school because of Covid. We have talked to these families; we have explained to them it is necessary". (P24)*

The schools that indicate changes in the evaluation are oriented to give more opportunities and to use added resources in digital form (rubrics, targets, forms, etc.). Virtual learning environments make it possible to monitor student progress more efficiently and provide them with more immediate and quality feedback (as shown in interview P64). Personalization is enhanced, and the most significant changes reported refer to the adoption of a more continuous and formative evaluation model.

*"During the pandemic some teachers did online exams, it was a fiasco because of everything we already know... you have mom and dad at home, internet... the third evaluation we already decided in the confinement's year not to do online exams, that we should evaluate differently. And some departments have kept that nineteenth-century way of evaluating, as we*

*all know it... if not, then either through teamwork, individual work, network work". (P70)*

They have even reported that, thanks to technology, it can also improve evaluation processes in primary and secondary education by taking advantage of advances in massive data and artificial intelligence:

#### **4.3. Derived aspects**

##### *4.3.1. Marked differences by educational level*

There is a notable difference in the age of the students. The students' ages differ noticeably. When establishing guidelines, it has been noted that virtual education is less effective for younger students, whereas hybrid teaching models are more suitable for older students. In this sense, at lower levels, it has been more difficult than at higher ages.

*"We focused especially on infants, where there was the difficulty of how to continue teaching children who really need close attention. In primary school it also happened, especially in the lower grades; we had to reinvent ourselves". (P06)*

*"In primary, we did not want to overwhelm the students so much by keeping the schedule exactly as it was. As the children had 3 or 4 Zoom links during the day and then plenty of time to do their work. Secondary followed more of a fixed schedule, but it was in the morning, so you had all successions and then afternoons to do the work". (P22)*

##### *4.3.2. Digital disconnection*

The right to digital disconnection is a recurring theme in the interviews and crucial to manage. Several schools explain how they had to establish a timetable to avoid working from 8:00 to 22:00 or more. One interviewee emphasized the existence of a protocol that limits the hours for the teaching team to consult and communicate with families and students via emails and notifications.

Despite the return to some normalcy, teachers persist in reporting excessive workloads. The perception of the level of demand from families is a clear indicator. After the pandemic, they require the inclusion of aspects introduced during confinement in classes.

*"What I see is that families are now more demanding. I see that the teacher's work has multiplied. If a child is absent, the teacher who is not sending homework through Classroom is persecuted" (P43).*

Finally, the debate about the future of education is profound. The comments and reflections contributed to this research address issues like ubiquity and the role of teaching in harmony with a multitude of learning sources beyond the school setting.

## **5. Discussion**

Returning to the goal of this research, to analyse how schools in Spain are developing post confinement, with special emphasis on the schools'

digitalization, teaching competence and future models of education, we proceed to discuss the results based on the questions hypotheses put forward:

### **5.1. What changes have been introduced in schools in terms of equipment/infrastructure, teaching-learning methodology and organizational and communication processes?**

Technological equipment and digitalization of contents and processes by schools and teaching teams were the main changes, as indicated by studies conducted during the pandemic (Palau et al., 2021; Bonal & González, 2020; Zubillaga & Gortazar, 2020; Trujillo et al., 2020). Providing technology in schools was an obvious need (Lorente et al., 2020).

The pandemic has accelerated the digitization of schools, which had already started shifting from paper to digital. This is an opportunity to open schools to the outside world, as noted by the OECD (2020). Digitization involves implementing infrastructures, connectivity, devices, and use of educational resources.

Rivera-Vargas et al. (2021) had already described the enthusiasm about the possibilities offered by technologies, going from being only a market option to being from being just a market option to being indispensable for schools and home (Sepúlveda-Escobar & Morrison, 2020; García-Tudela et al., 2022) point out that companies and institutions prioritize the technological endowment over the digital competence training of their workers.

It seems obvious that the digitatization conducted during confinement may endure in the organizational culture of many schools. In this sense, Díez Gutiérrez and Gajardo Espinoza (2020) suggests that technologies, not as an alternative, but as an enriching tool.

This digitalization has been visualized in various dimensions. Teaching and learning processes, school organization (document management or meetings), and external communication. The latter seems likely to endure because of its flexibility and ease of time management for teachers and parents. According to (Bonal & González, 2020), online resources vary among students from different schools, which agrees with (Blainey et al., 2020) that educational inequalities have worsened because of the pandemic.

The schools have worked hard to adapt (Marinoni et al., 2020) noting the unprecedeted efforts to innovate. Many of the changes are here to stay, taking advantage of this opportunity for change and innovation (Delcker & Ifenthaler, 2021).

Educational practices during the pandemic have not involved a reflective process and that the use of digital tools must be done with a purpose (Sepúlveda-Escobar & Morrison, 2020), although in this study a methodological evolution is shown during the post-pandemic, such as adopt active methodologies, flipped classroom, cooperative learning, or project-based learning. Education was already trying to adapt to the needs of today's society, although the pandemic has been a revulsive as several studies demanded (Trujillo Saéz, 2020).

Although recognizing the need to progress in this direction, the evaluation is noticeably absent from all these changes, which contradicts the report (Gortazar et al., 2020) that argues that the crisis made it possible to radically alter the conventional link between evaluation and qualification.

Assessment tools have been digitized, including rubrics and learning targets. However, most still prefer face-to-face evaluation. Assessment models should be continuous, formative, and integrative to help students to continue advancing (Díez Gutiérrez and Gajardo Espinoza, 2020).

Alternatively, Learning Management Systems (LMS) are appreciated for their ability to supervise students' progress and provide immediate feedback, with the potential of utilizing Artificial Intelligence or Big Data in the future, in alignment with the surging use of platforms and datafication (Rivera-Vargas, 2021).

### **5.2. How have teachers adapted in relation to the digital competence?**

The pandemic has improved, by necessity, the digital competence of teachers in all regions, all educational levels studied and all types of schools, perhaps because teachers were not trained for it (Crawford, 2020). Younger teachers are more open to training and improving their teaching digital competence in line with the results of other studies (Portillo Berasaluce et al., 2022).

This teacher training in digital competence has different origins and modalities. Specific training or intensive use based on experimentation, collaboration and cooperation among teachers has promoted the training of digital competence. The studies that have been carried out (Rodríguez-García, 2018; Palau et al., 2019; Andía-Celaya et al. 2020) show that more research or more effort is needed on the part of the administrations to identify and certify it.

Methodological responsibility is not only the responsibility of the schools. It is also the responsibility of teachers, so they must be trained and competent. Authors (OECD, 2020; Rivera-Vargas, 2021; Portillo Berasaluce et al., 2022) underline the need to rethink continuous teacher training focused on affective and motivational skills, adaptability, collaborative work and learning to learn, rather than on instrumental skills, precisely because of the need to train professionals capable of understanding and proposing answers to contemporary problems.

It is pointed out that teachers understand that the use of active methodologies allows them to redistribute their dedication without having to spend so much time outside of working hours. Interviewees have reported overworking (Díez Gutiérrez & Gajardo Espinoza, 2020). Thus, it is necessary to take care of workers and prioritize their comprehensive well-being.

### **5.3. Are other educational models, alternative to the traditional face-to-face, being considered?**

The debate about the future of education is intense. Face-to-face education model defended by the majority since socialization improves learning and the emotional dimension, which is so impaired during this pandemic as several studies point

out (Crawford et al., 2020; Reimers & Schleicher, 2020; Bartlett et al., 2020; Díez Gutiérrez & Gajardo Espinoza, 2020). The reopening of educational schools and the consequent attendance is based on educational and economic reasons and needs (Prestridge et al., 2019). For this reason, it is possible to see that it will enrich future educational models with the use of digital and technological resources.

On the other hand, a rethinking toward hybrid models is being advocated since they favour the schooling for convalescent students. Face-to-face versus virtuality or hybrid models is related to the age and educational stage of the students. As the future is ubiquitous, it is necessary to look for models in line with this (European Commission, 2021).

Learning spaces are a much-mentioned element that needs to be innovated and improved. In this sense, some studies already expect this need (Palau & Mogas, 2019; Mogat et al., 2020).

## **6. Conclusion**

The results of this qualitative study offer a unique and significant insight into the post confinement in schools in Spain. The changes in schools include accelerating digitalization, online family-school communication, the practice of active methodologies and an uneven integration of technology in evaluation. Regarding teacher adaptation, in general, there is an increased use of technological tools and an improvement in teachers' digital competence. However, many teachers are still unprepared for effectively embrace these new opportunities. Finally, it is unanimous that the best model is face-to-face, although a hybrid and virtual format is appreciated for older students. On the other hand, social and professional issues emerge, such as the right to digital disconnection and teachers' work overload.

About practical contributions, the study offers applications for management teams, educators, and educational policy makers. The recommendations to improve educational practice are oriented to promoting specific strategies for the effective integration of technology in the classroom and active methodologies, considering evaluation. This is possible by providing continuous training for teachers, with adaptation according to life and professional cycle.

While the face-to-face model is the priority in primary and secondary education, successful elements from hybrid and virtual models can be incorporated to optimize the learning experience, particularly for higher stages.

The professional conditions of teachers must be addressed, with implementing policies and practices that respect the right to digital disconnection outside working hours, and discuss work overload, redistributing teaching tasks and using technology as an ally.

Regarding limitations, the results focus on the specific context of post-confinement Spain. Although the objective was not to generalize, other studies may yield slightly different results. The convenience sampling can lead to an

increase in bias and the instrument's validity can be compromised by its ad hoc elaboration.

Future research could use mixed methodologies, expanding the perspective of students, families, and administrations. In this case, it would be a priority to complement it with the quantitative method. For example, through the survey method, a greater amount of data could be obtained, which would provide an overview in a more efficient way. In addition, a longitudinal study would be useful to assess the impact of long-term changes.

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