SCHOOL LEADERS AS PROMOTERS OF INCLUSIVE DIGITAL LEARNING

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Technological changes, development of key competences identified by the EU and OECD as crucial for citizens, together with the consequences of the Covid-19 pandemic, can be faced only through an ecological approach rooted in pedagogical leadership. The Covid-19 pandemic has generally boosted teachers' digital awareness and competence but there seems to be a lack of reflective practices on how digital technology can improve inclusive learning. School leaders are essential in involving and supporting the school community in the use of digital technology for inclusive learning. The Erasmus+ project ePRI4ALL has the aim to shape the digital pedagogical leadership attitudes. The partnership conducted ninety-nine in-depth semi-structured interviews with school leaders and experts in Spain, Greece, Italy and Poland. The thematic analysis highlighted challenges faced, resources available and professional development needs and grounded the learning materials developed (modules, MOOC and online app). This article will present the results for the 25 Italian interviews analyzing the role of digital education in school, the training needs of school leaders and the main challenges that they have to face in order to be promoters of an inclusive and digitally competent school.

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VODJE ŠOL KOT SPODBUJEVALCI VKLJUČUJOČEGA DIGITALNEGA UČENJA

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S tehnološkimi spremembami, razvojem ključnih kompetenc, ki sta jih EU in OECD opredelila kot ključne za državljane, ter posledicami pandemije Covid-19 se je mogoče soočiti le z ekološkim pristopom, ki temelji na pedagoškem vodenju. Pandemija Covid-19 je na splošno povečala digitalno ozaveščenost in usposobljenost učiteljev, vendar se zdi, da primanjkuje refleksivnih praks o tem, kako lahko digitalna tehnologija izboljša vključujoče učenje. Vodstvo šole je ključnega pomena pri vključevanju in podpiranju šolske skupnosti pri uporabi digitalne tehnologije za vključujoče učenje. Cilj projekta Erasmus+ ePRI4ALL je oblikovati stališča digitalnega pedagoškega vodenja. V okviru partnerstva je bilo opravljenih devetindevetdeset poglobljenih polstrukturiranih intervjujev s šolskimi vodji in strokovnjaki v Španiji, Grčiji, Italiji in na Poljskem. Tematska analiza je izpostavila izzive, s katerimi se soočajo, razpoložljive vire in potrebe po strokovnem razvoju ter utemeljila razvito učno gradivo (module, MOOC in spletno aplikacijo). V tem članku bodo predstavljeni rezultati 25 italijanskih intervjujev, ki analizirajo vlogo digitalnega izobraževanja v šoli, potrebe vodij šol po usposabljanju in glavne izzive, s katerimi se morajo soočiti, da bi postali promotorji vključujoče in digitalno kompetentne šole.

1   Introduction

The Covid-19 pandemic has generally boosted teachers' digital awareness and competence but there seems to be a lack of reflective practices on how digital technology can improve inclusive learning. School leaders are essential in involving and supporting the school community in the use of digital technology for inclusive learning. With the aim of analysing the training needs of school principals and producing useful materials for the strengthening of their professional skills in this field, an Erasmus + project was implemented in the years 2022-2024 involving Italy, Spain, Greece and Poland. This Erasmus+ project, named 'ePRI4ALL. Open and digital resources for primary school principals to support inclusive education through online learning'[1], had the aim to shape the digital pedagogical leadership attitudes.

This article will present some of the findings from the research phase in Italy, placing them within a broader reflection that emerged from the analysis of the research results in the four countries involved[2].

1.1   School Leaders as driver of innovation

In the education field, there is a wide tradition of research on the role of teachers in relation to educational policies, particularly developed since the 1960s in sociological studies (Besozzi, 2017). From such studies, the ethical and professional tensions to which teachers are exposed and the strategies of preservation, reproduction and change of the social system emerge. It becomes evident how their professional experience develops thanks to spaces of autonomy delimited by relational, bureaucratic and organisational constraints (Argentin, 2018). It also follows that there is a difference in the roles that teachers assume: among these, Croll *et al.* (1994) identify that of "*policy maker in practice*" (in addition to those of partner, implementer or opponent of policies) emphasising how public policies cannot disregard the concrete traits they assume.

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[1] For more information on the project see https://e-pri4all.erasmus.site/
[2] The article is the outcome of a highly cooperative effort by both authors. However, for Italian academic reasons, we state that Rita Bertozzi wrote sections 1, 2 and 4 and Laura Landi section 3.

Like teachers, school leaders also play a crucial role in the implementation of school policies and in the definition of the type of response individual schools give to emerging challenges. Assuming school leaders as street-level bureaucrats 'SLBs' (Lipksy, 1980), it is evident how they are at the centre of multilevel institutional pressures and called upon to take decisions on the cases and issues they deal with. To this end, they have a more or less wide discretionary space, only partially explicit, which is modifiable but ineliminable (Evans & Harris, 2004). In fact, it constitutes the "instrument" of adaptation of the institutional mandate with respect to the variability and unpredictability of the situations and conditions in which it is implemented. The management of discretionary spaces constitutes the very essence of the SLBs' task, since they define priorities, assign benefits or sanctions, establish access or exclusion from services for potential users. These choices imply responsibilities that are not always and fully defined and protected by the legal framework and the institutional role they play. The result is a tendency to routinise decision-making processes, selecting achievable objectives and abandoning those deemed unfeasible or secondary, limiting the timing of interventions, and monitoring their results against supervisory mechanisms and control systems (Saruis, 2018). In this sense, school principals shape public school policies as they are actually used by stakeholders.

The complexity of this role also emerges with reference to the digital transformation of schools and to the concrete traits that policies for technologically competent schools assume. Digital tools and competences have entered in various ways at school and, even after the Covid-19 pandemic, their use has increased. However, research points to the persistence of various critical issues and challenges that need to be overcome in order to consider the digital transition, including at school, as complete. In this process, school leaders can play a crucial role provided they assume digital pedagogical leadership.

The profound transformation in the exercise of the teaching profession have contributed to redefining the role of teachers and principals: knowledge and disciplinary competences, teaching and learning methods, the relational system and learning contexts have seen numerous changes, demanding great flexibility and multidimensionality from teachers and principals. School leaders, also by virtue of the various school reforms, have progressively witnessed a change in the roles and tasks attributed to this profession, as well as in leadership models.

The transformative model, in which the school (and not the principal) is the center of educational change (Heck & Hallinger, 2014), has long been advocated as more effective (Berkovich, I. 2016), even if some authors argue that an organization will not learn as long as it continues to promote the dependency on a person (Bolívar, 2001). Another possible model is the learning-centred approach leadership which integrates instructional and transformational dimensions of leadership. It can be described as "all that set of activities carried out by the principals that have relationship with the improvement of the teachers & students' learning processes".

In the digital era, we can recognize the need of a digital leadership embodied by principals. The digital school leadership is defined as the educational leader's capacity of developing strategies to benefit from digital technology in order to improve in-person and virtual education. Indeed, innovation through digital technologies can only be achieved if it is guided by pedagogical objectives. In this sense, principals have to become digital pedagogical leaders. Being a digital pedagogical leader implies addressing the digital perspective and tools from pedagogical leadership approach in order to give the students better learning; moreover, looking for a shared vision of responsibility (not only to occupy a lead position) in which the whole educational staff has influence and a proactive role in its respective areas of work. The poor integration of digital technology in schools could be linked to low leadership (Ugur & Tugba, 2019) or insufficient digital pedagogical leadership.

1.2   Research aims

In order to explore the current and emerging training needs of primary school principals, the partnership of the ePRI4ALL project conducted ninety-nine in-depth semi-structured interviews with school leaders and experts in Spain, Greece, Italy and Poland. The topic explored by the interview's grid concerns the role of digital education in school, the training needs of school leaders and the main challenges that they have to face in order to be promoters of an inclusive and digitally competent school.

2   Methodology

In Italy, the Department of Education and Humanities of the University of Modena and Reggio Emilia conducted 25 semi-structured interviews: 6 interviews were conducted with experts, and 19 interviews were conducted with school principals.

All interviews except one, have been conducted remotely via G-Meet or Teams as school principals and experts were selected from North to South and Islands. The interviews lasted 1 hour on average and the interviews underwent a process of thematic analysis, starting from known literature and bottom-up approach.

Of the 19 interviewed principals 2 were males and 17 females. All of them have had years of experience as teachers, as this is a requirement to participate in the principal's selection process. Nine had taught in primary school, three in upper secondary school, four in lower secondary and three at different school levels.

Years of teaching experience before their current position vary between 10 and 32, with an average of 18 years. During their teaching years 17 principals had sometimes multiple, middle management responsibilities such as:

- Vice-principal (6)
- Teachers' coordinator (6)
- Special issues (inclusion, interculture) coordinator (5)
- Internal special issues commission member (2)
- School systemic evaluation (1)
- Worked in ministry decentralized office (2)

As for their current role, all of them lead public schools. 15 manage institutions that include primary and lower secondary schools, in some cases pre-schools; while 4 manage institutions that only include pre- and primary schools. 3 among them have adopted a special approach, called "Senza Zaino"[3].
The institutions are spread throughout the country:

- 6 in the north-west (4 in urban, 1 in rural and 1 in a mixed contest)
- 4 in the north-east (3 in urban and 1 in a mixed contest)
- 6 in the center (5 in urban, small towns and 1 in rural contest)
- 2 in the south and 1 in the island, all in marginalized and depressed inner-city areas.

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[3] It is a network of schools where children do not carry backpacks (zaino in italian), but leave all their materials in school. The approach to teaching and learning is active, project-based, supports cooperation among students, and involves new technologies.

With respect to the social composition of the school, 5 principals declare that their school population belongs to the middle or upper middle class, 3 define it as lower middle class, 8 consider their school population as a mix of lower to upper middle class with some pour family, while 3 declare their school to be in a depressed, high-criminality rate, inner city area. All together 10 of these schools are in areas with a growing migrant population.

3   Results and Discussion

3.1   The experience of the school leaders with digital technologies

The emergency measures applied to contrast the spread of Covid-19 have forced school leaders to rethink their leadership role and the use of technologies. The analysis of the interviews highlight how this group of school leaders have repositioned themselves.

School leaders who were interviewed seem to have an instructional or learning-centered approach to leadership. In the interviews there is very little sign of pure transformative leadership. Principals who shared responsibilities and had supported the training of their staff in the use of ICT before the pandemic, report a much quicker and smoother transition to online learning. The learning-centered approach leadership, that softens the central role of principals with the involvement of teachers in the decision making process, has confirmed many in the idea that a principal should be able to recognize and enhance the talents limiting the amount of hierarchical decisions. *"If you build a model of this kind of school and management, I think it can only cascade to involve the rest of the context" (PI9)*.

This leadership model also implies to *"have coordinating figures who can preside over the focal points of the school, capable of interfacing with the outside world as well" (PI11)*, because a principal alone cannot manage school complexity. Only one school principal seems closer to a transformative leadership, because she emphasizes team-shared decision making as a way to ensure flexibility and creativity in finding divergent solutions, adapted to school as a non-standard context.

Another sign of possible move toward transformational leadership is the necessity certain principals feel to open the school to the community, to help students see themselves as *"part of a community and a territory" (PI8)* to channel energies not only for individual gains, but for the community. One goes as far as considering training all staff as community animators, to leverage values and community leadership, to make the school the heart of community revival.

Another indicator of instructional leadership style is the type of communication tools used by most institutions. All principals declare to use and consider functional digital bulletin boards and logbooks, e-mails, sometimes the website for communication with both families and staff. Yet, foreign or low income families might have difficulties due to lack of devices or language barriers. Some of the more interactive digital channels such as platforms, web-radios, online question-time on specific issues, opened during the pandemic, have now been closed. Most school leaders use digital tools when it favors monodirectional (from the school to the parents) smoother communication. All the potential gains digital tools offer for bidirectional communication are not considered.

While many school leaders recognize that a close parental network supports fragile families and helps schools accomplish their mission, there are nosy and interfering parents that could be favoured by more relational communication channels. The solution, typical of the instructional leadership, is confirming the hierarchical structure of the relationship, with class representatives being the direct interface with teachers and school leaders.

The persistence of online meetings both for staff and families is an effective means to grant higher participation of all stakeholders getting things done because "*people online are more focused on the task*" (PI11), while limiting possible conflicts and the emergency of divergent opinions.

3.1.1   Digital pedagogical leadership

Digital tools have much potential for instruction: specific tools and projects (robotics, coding, drones, robots, video games, padlets and playful apps), the streamlining of daily work, project-based teaching approaches focused on 21st century skills, introduction of STEM teaching, platforms for teachers' collaborative

work and for documenting and making educational pathways available to colleagues are some of these potentialities. Also online sharing tools between pupils, with pupils and teachers and among teachers promotes a shift to participatory and interactive teaching. Most principals are aware of the need to support this pedagogical change while protecting the school community from the risks, in terms of privacy and data protection.

The interviewed school leaders feel the need to support teacher in exploring digital tools not only to compensate for specific learning needs (disabilities, L2), but also as interactive tools that support cooperative, inclusive and active learning and innovative digital assessment (flipped classroom, interdisciplinarity, reality tasks, feedback, self-assessment). This relates to the crucial role of digital leadership as promoter of digital projects aimed to enhance the learning environment integrating analog and digital approaches, to explore real-world and virtual-world interactions.

However, interviewed principals are still exploring their role as digital pedagogical leader. They mostly refer to specific projects to reflect on the use of digital tools such as the use and analysis of online communication tools to create advocacy skills and active citizenship, because they create opportunities for the use of digital tools in situations with a great connection to reality. Some principals consider specific training and documenting and sharing the projects with the entire school community during official meetings as key for the implementation of digital technologies in teaching.

Only few school leaders report the effectiveness of creating educational networks with other institutions to exchange training experiences, and the implementation of organizational settings that allows co-teaching during projects that use digital tools. These more learning-centered leadership approaches are not so widespread.

3.1.2   Using digital tools for inclusion

While principals agree with the need to include digital tools in everyday school activities, the feeling is that the investment in technology has not been accompanied by clear pedagogical goals and extensive training paths.

"One hoped that new technologies, then that was what they were called, could prove a tool to transform teaching methodologies, in reality this did not happen, because it remained a technical structure leaning on outdated teaching methodologies that did not lead to any revolution. It has somewhat disheartened the old teachers or those who felt inadequate to face this challenge but without pushing on a global rethinking of educational methods (...) A lot of money has been spent on teacher training, but the percentage of teachers who are aware of the power of technologies within educational pathways and who use them systematically to transform their teaching is really residual compared to the majority of teachers." (PI10)

Thus, according to principals, schools face a double challenge. On the one hand there is a technical gap between digital experienced teachers, who often form in-house digital teams, average users and teachers with no expertise whatsoever. On the other hand, there is a general lack of reflection on the use of digital tools for triggering effective teaching and learning mechanisms and for inclusion.

According to many school leaders, the problem is that training tends to be focused on technical aspects, and not to open up spaces for dialogue on the meaning and limits of digital, and on educational spin-offs, partly because trainers often lack real knowledge of school realities. To create real change professional development on ICT should be held by experienced teachers trained thoroughly on digital tools. These experts could teach their colleagues the technical aspect, but also guide them in the possible pedagogical and methodological spillovers.

Some principals had the means and opportunities to create a competent internal digital team, able to train colleagues, at a growing level of complexity, through a cascade model (Kennedy, 2005). Internal training, structured as a workshop on issues specific to the institution, with a learning path co-designed by participating teachers, avoiding standardized proposals that do not take into account the context. This format helps grow in observational and sharing skills, and the creation of a community of practice, a powerful tool to support innovation. To promote lasting change in school training has to be articulated, prolonged, based on community of practice and tailored made: all these characteristics imply high costs.

Awareness of how to innovate teaching, making it more inclusive through digital, is not yet ingrained in all settings. Where this awareness exists, digital is used widely and across disciplines. Few principals are aware of the full potentials of digital for inclusion. Schools special need education teachers have been using digital tools as compensating devices for many years, and they lead the way for individual activities

with disadvantaged students. The use of individual devices does not consider the Universal Design for Learning approach, where digital tools are integrated in regular class activities, and focused on providing equal opportunities for all. It is an approach that enhances educational possibilities for all. This type of comprehensive approach is not widespread in Italian schools nor is supported by interviewed principals.

Digital tools can offer great opportunities for remote interaction among students and with educators, for example in the form of online rooms, where students can do homework and study separately or asking questions to peers or adults. These environments were open during the lockdown, but have now been closed. Yet, according to some principals, they could represent a great way to support fragile students' learning.

3.1.3   Training for school leaders

Most Italian principals train in preparation for the national competitive exam to enter the profession and during the probationary year. Each region offers professional development throughout the year on various topics, mainly legal, self-assessment and strategic priorities, management, and safety. *"Trainings that are essentially informational in nature, in a face-to-face mode" (PI10)*, yet, since this training is offered on a regional basis, type, topic, methodology can vary greatly.

The feeling of being insufficiently trained is especially present among principals who entered tenure in the last 10 years. Those with longer professional experience report longer and more structured initial professional development programs with much training on inclusion and interculturalism, less on digital issues, which had a different role at the time: *"today it is a pervasive tool that changes the learning and working environment, both of the secretary and teachers." (PI11)*

School leaders who are newer to the profession report that pedagogical-didactic aspects have been limited in their training. Without this training, they lack the ability to discern between different experiences, and the insight to define together with the educating community the identity of the school institution. They might consider administrative, managerial, organizational tasks as more important. They might not consider their pedagogical leadership role, unless they had pedagogical training courses during their career and thus have developed a greater sensitivity and

expertise on these issues. If they are school leaders in a different school level versus the one they thought in, they might not even be aware of the pedagogical and didactic need of the school they are managing.

Most principals report a lack of training in: inclusion, intercultural competencies, especially since there are no structured training paths after the probationary year. Principals, who believe that continuing education is important, independently attend master's degrees on the management of educational institutions, or on the use of technology, or on cross-cultural issues.

For most principals training should become an opportunity to meet other school leaders, share experiences, create a community of practice. Indeed, it is important to link the theoretical framework to practice, not only on a personal level, but finding a collective synthesis, building concrete applications together. From this point of view, building groups within institutions that train together, sharing experiences, field studies and practices, is very effective. Coherent with this idea is peer education in the form of job shadowing/visiting to be effective, to learn from comparison with different realities.

Since the digital are non-neutral tools that must be used, but must be approached with awareness, they require reflective training. Principals should be the first to do this reflection, perhaps during joint training paths together with teachers, because they have the task of presiding over and directing educational processes, guiding innovation and promoting a culture of change. These professional development courses should help them grasp the added value of digital, proposing new uses. *"Without these skills even what could be curved in this sense, such as digital, is experienced as a mere tool without knowing how to evaluate the consequences and possibilities"* (PI7).

4   Conclusion

Teaching for an inclusive, technologically competent and sustainable society is the key role of schools in the 21st Century and involves different stakeholders. School principals have been the target of Erasmus+ project ePRI4ALL, and the research emphasises training areas to be fostered to become digital pedagogical leaders. Many principals feel the need to strengthen their leadership and effective communication

skills, as these aspects are crucial to the promotion of all kinds of innovation, including digital-related innovation.

Managing their discretionary spaces, school principals can be a driver for inclusive uses of technologies in schools. However, they need to be trained in digital learning leadership, inclusive and creative digital learning, in taking advantage of digital possibilities for administrative management, for organizing work, for supporting operational functions, for designing, archiving and disseminating digital educational materials, and for maintaining relationships with other services active in the area. Another important role of school leaders is supporting the teaching staff's upskilling in digital education and the community involvement in the digital education process. The recent pandemic has triggered new investments and awareness, which together with the SDGs identify important goals for the school system. The risk, however, is that the investments are not accompanied by adequate pedagogical reflection with respect to the goals and ways of using digital tools, and that the skills developed are only medium-related and not content-related (Gui, 2019). In this process of change, teachers and school leaders remain a focal point of policy implementation, and can make a difference if adequately trained to face the new challenges. The ePRI4ALL project contributed to this goal producing open access educational resources.

References

Argentin, G. (2018). *Gli insegnanti nella scuola italiana.* Bologna, Il Mulino.
Berkovich, I. 2016. School leader and transformational leadership theory: time to part ways?. *Journal of Educational Administration*, 2016, 54 (5), 609-622.
Bertozzi, R., Saruis T. (2022). *Challenges for Early Childhood Professionals. An Empirical Research Project on the Strategies, Practices and Effects of LEADs*. In Colombo M. et al., Education and Emergency in Italy. How the Education System Reacted to the First Wave of Covid-19. BRILL, 5, 32-55.
Besozzi, E. (2017). Società, cultura e educazione, Milano, Carocci.
Bolívar, A. (2015). The comprehensive school in Spain: A review of its development cycle and crises. *European Educational Research Journal*, 14 (3-4), 347-363. https://doi.org/10.1177/1474904115592496
Croll, P., Abbott, D., Broadfoot, P., Osborn, M., Pollard, A. (1994). Teachers and education policy: Roles and models. *British Journal of Educational Studies*, 42 (4), 333-347.
Evans, T., Harris, J. (2004). Street-level Bureaucracy, Social Work and the (Exaggerated) Death of Discretion. *British Journal of Social Work*, 34 (6), 871-895.
Giunti, C., Ranieri, M. (2020). Professionalità Dirigente e innovazione scolastica. *Formazione & Insegnamento*, XVIII, 376-390.
Giunti, C., Ranieri, M. (2019). Modelli di autodirezione dell'apprendimento nella formazione dei Dirigenti scolastici: una rassegna sistematica della letteratura internazionale. *CQIA RIVISTA*, 9, 88-97, ISSN:2039-4039.

Giancola, O., Piromalli, L. (2020). Apprendimenti a distanza a più velocità, L'impatto del COVID-19 sul sistema educativo italiano. *Scuola Democratica*, 1-10.

Gui, M. (2019). *Il digitale a scuola*. Bologna, Il Mulino.

Heck, R. H., Hallinger, P. (2014). Modeling the longitudinal effects of school leadership on teaching and learning. *Journal of Educational Administration*, 52 (5), 653-681.

INDIRE (2020). *Indagine tra i docenti italiani pratiche didattiche durante il lockdown. Report preliminare 20 luglio 2020.* tinyurl.com/h64hh06c

Kennedy, A. (2005). Models of continuing professional development: A framework for analysis. *Journal of in-service education*, 31(2), 235-250.

JRC (2021). *What did we learn from schooling practices during the COVID-19 lockdown?*, European Union

Lipsky, M. (1980). *Street-level bureaucracy. Dilemmas of the individual in public services.* Russel Sage Foundation.

Ranieri, M. (2020). La scuola dopo la DAD. Riflessioni intorno alle sfide del digitale in educazione. *Studi sulla Formazione*, 23 (2), 69-76.

Saruis, T. (2018). Street-level workers' discretion in the changing welfare. *Cambio. Rivista sulle trasformazioni sociali*, 8 (16), 31-42.

SIRD (2020). *Per un confronto sulle modalità di didattica a distanza adottate nelle scuole italiane nel periodo di emergenza COVID-19.* https://www.sird.it/wp-content/uploads/2020/07/Una_prima_panoramica_dei_dati.pdf

Ugur, N.G., Tugba, K. (2019). Leading and teaching with technology: School principals perspective. *International Journal of Education Leadership and Management*, 7(1), 42.