Lessons from a Pandemic for the Future of Education
European Distance and E-Learning Network (EDEN) Proceedings
2021 Annual Conference | Madrid, 21-24 June, 2021

ISSN 2707-2819

doi: 10.38069/edenconf-2021-ac0015



HOW PORTUGUESE SCHOOLS NAVIGATED THROUGH THE PANDEMIC FIRST WAVE: VIEWS FROM HEADTEACHERS

Ana Cristina Torres, Angélica Monteiro, Center for Research and Intervention in Education, Faculty of Psychology and Education Sciences of the University of Porto, Ana Mouraz, Department of Education and Distance Education, Open University, Lisbon, Portugal

Abstract

The transition from emergency remote teaching schemes to effective online learning ones has posed just as much similar as specific challenges to different countries and regions during school closures of the COVID-19 pandemic first wave. In Portugal, the specific challenge of a notably aged teaching workforce that admits being underprepared for pedagogically meaningful use of digital technologies in education has become more evident. Focusing on the views of seven interviewed schools' headteachers, this paper presents and discusses the reported facilitators and barriers/constraints of their schools' transition from emergency remote teaching to online learning, during the first pandemic wave and relates those factors with the particular issues of veteran teachers' engagement with online learning. The paper introduces the rekindle+50 project under which the data collection and analysis took place and underlines the extreme importance of continued investment in teacher professional development and collaboration to enhance more effective use of online learning tools and platforms in times of uncertainty.

Introduction

The COVID-19 pandemic and corresponding sanitary crisis that resulted in school closures caused an unprecedented disruption in education systems. The abrupt changes that were demanded of schools, teachers, students and families with the adjustment to distance teaching schemes accentuated existing vulnerabilities and educational inequalities worldwide (UN, 2020). Educational sectors and schooling levels were faced with just as many similar challenges, such as issues of hardware and connectivity, as specific circumstances, such as the ones related to conditions to practical or lab work and support for special needs children and young people. How effectively educational systems responded to such challenges depended as much on how well those systems were prepared for them as on the types of responses and resources that were put forward to tackle them.

In Portugal, schools' closure during the first pandemic wave was nationwide from the 16th of March until the end of the school year. It implied a loss of in-presence instructional time during 14 weeks with an Easter break in the middle. Most schools and teachers took the first weeks to organize the remote teaching routines in this emergency scenery with occasional contacts with students and families asking or recommending learning activities, clearing doubts, reviewing assignments, many times without fixed schedules (DGEEC, 2020). During this time, measures at a national level were mostly about setting up centralized platforms and resources to help teachers, students and families, including partnerships with important entities in the field of online learning (e.g., Open University), as well as making guidelines available for schools to design and implement their Distance Education Plans. At regional and local levels, schools, local authorities, social institutions and enterprises partnered in designing solutions to reach all students and providing them with resources and conditions to remain engaged in learning activities. After the Easter break, in early April, and as new communication and teaching routines were better established for most schools and schooling levels, concerns became more focused on issues such as the inclusion of vulnerable and special needs students, and the monitoring, assessing and certifying of student learning (DGEEC, 2020). Moreover, the government investment was then concentrated on training school leaders nationwide to support other teachers in the progressive transition from an instrumental use of technologies in emergency remote teaching, to a quality digital education, in collaborative and constructive environments (Moreira, Henriques, & Barros, 2020) and on launching educational programming for basic education students on-air in a TV open channel, in an additional attempt to reach students who still lacked the needed equipment or Internet connectivity (Menezes Junior, 2020).

The measures put in place to continue students' learning during school closure, especially through online platforms, were increasingly dependent on families and students' availability of resources, connectivity, competence and autonomy to use specific hardware and software. But they were also strongly dependent on teachers' preparedness to support digital learning, both in terms of hardware and software availability, and technical and pedagogical skills to use it. In this respect, the personal and professional features of the Portuguese teaching workforce became salient as well as the pre-pandemic existing teacher support initiatives and incentives.

When the pandemic spread and forced schools to close, a team of Portuguese researchers was investigating the teacher ageing phenomena and its relationships with the use of digital technologies in education. We were organizing a set of teacher professional development sessions and together investigating its potential to promote the renewal of

veteran teachers' commitment to teaching and curricular innovation mediated by digital technologies.

In this context, the paper draws on qualitative data collected within this project to present and discuss the challenges schools and their veteran teachers faced during these exceptional times. Focusing on the views of headteachers, its objectives are i) to identify the main facilitators and barriers/constraints factors of these schools transition from emergency remote teaching to online learning, during the first pandemic wave; ii) to relate the identified factors with the particular issues of veteran teachers engagement with online learning. The paper introduces the rekindle+50 project under which the data collection and analysis took place, as well as some of its main findings to contextualize the situation of veteran teachers in Portugal and the challenges they pose to schools. Afterwards, it presents and discusses the views of some headteachers of the schools where the participant veteran teachers worked.

The rekindle+50 project: study context

The project "Digital migrations and curricular innovation: giving new meaning to experience and rekindle teaching profession after 50" (rekindle+50) focused on teachers over 50 years old and on renewing their commitment to teaching and curricular innovation, mediated through the use of digital technologies. Its purpose was to foster the relationship between the essential aspects of curricular agency assumed by teachers and the practices of educational action mediated by digital technologies (Mouraz, Lopes, Morgado, & Torres, 2020). Methodologically, this project associated research, intervention and the professional development of primary and secondary school teachers. It convened two academic educational research centres and two in-service teachers' education centres from the North and Centre of Portugal. These later hosted two editions each - 2019 and 2020, of a course for pre-school, basic and secondary school teachers with 50 years old or more about Innovative Educational Environments and specific new methodologies in teaching with the use of digital technologies to address student demotivation and school achievement (Morgado, Lencastre, Freires, & Bento, 2021). The research component of the project included diversified data collection moments and methods spanning from an initial online questionnaire, to observing the training sessions, analysing teachers' digital learning diaries held on the Padlet platform by the participants and analysing reflections produced by the teachers throughout and by the end of the courses. Moreover, we organized focus group discussions with some of the veteran teachers participating in the courses, approximately six months after the courses' end, and interviewed their schools' headteachers in looking for more institutional perspectives of the introduced changes in teaching practices related to the training. The second edition of the teacher education courses had started in January 2020, when like so many other teaching and training

initiatives, it had to reshape its program to adjust to online learning and, most importantly, to the participant veteran teachers' needs arising from the abrupt changes of school closures due to the sanitary crisis.

Portuguese veteran teachers and the challenges of digital education: establishing a background

In 2018, the average age of the teaching workforce in Portugal was 44 years old (OECD, 2019a), with more than 40% of teachers having more than 50 years old. This ageing trend has been related to the increase in life expectancy and correspondent delay of the retirement age, as well as with the decrease in the school population and correspondent decrease in new teachers' recruitment. Older teachers usually accumulate a professional experience of twenty or more years being frequently identified in the literature as "veteran teachers" (Carrilo, & Flores, 2018; Monteiro, Mouraz, & Dotta, 2021; Orlando, 2014). Though rich in professional experience, Portuguese veteran teachers have suffered from a lack of career progression and erosion of working conditions and well-being (EC/EACEA/Eurydice, 2021) as well as of the perceived social value of the teaching profession (Alves & Lopes, 2016). Internationally, Portuguese teachers experience one of the largest numbers of instructional hours and with the least sense of self-efficacy on the use of class time (OECD, 2019a; OECD, 2019b). When combined with growing pressures to change and innovation challenging their pedagogical knowledge and the experience accumulated in years of practice (Orlando, 2014) and with generational students accentuated by the rapid evolution and incorporation of ICT in youth cultures, many suffer from professional exhaustion, stress and discouragement (Alves & Lopes, 2016; EC/EACEA/Eurydice, 2021). Though the crucial role of the use of digital technologies in improving the quality of education has been well established, many teachers still feel underprepared for the use of technologies in teaching (OECD, 2019b), especially in ways that improve its pedagogical potential in education.

Besides the above-mentioned challenges, the abrupt digitalization of education due to the pandemic lockdown increased the pressure to curricular and pedagogical innovation and the need for immediate responses from educational institutions, with the aggravating factor that there was not enough time to properly prepare teachers for careful planning of meaningful online learning practices. Such constraint led to emergency remote teaching responses, which the main objective is to "provide temporary access to instruction and instructional supports in a manner that is quick to set up and is reliably available during an emergency or crisis" (Hodges et al., 2020; Emergence remote teaching section, para.1).

Though much expectation has been placed on the possibility of the transition to online learning enabling the sustainability of innovative pedagogical practices once schools come

back to in-presence teaching, most findings from the rekindle+50 project have shown otherwise that this shift of instructional delivery may not represent, at first, a sustainable pedagogical change. For instance, according to Morgado, Mouraz, and Freires (2019), only the promotion of a culture of technology in teaching-learning contexts can enhance a movement of pedagogical innovation, which has to settle on curricular agency and educational practices mediated by digital technologies. Such innovations require sound strategies to mobilize a sustainable digital culture in the daily life of schools, which constantly tackle constraints that interfere with the construction and implementation of new practices. For the case of veteran teachers, such constraints include professional and personal aspects (Morgado, Lencastre, Freires, & Bento, 2021; Dotta, Monteiro, & Mouraz, 2019). The professional aspects are related to pedagogical relationship (Postic, 1984), encompassing conditions for effective online communication, feedback for formative assessment and opportunities for peer interaction. It also includes the management of time and student online behaviour, which in some cases may contain episodes of distraction, agitation, indiscipline and disrespect. The personal aspects are related, in part, to insecurity, lack of digital competencies, sense of loneliness, fatigue, lack of motivation, fear of change, loss of status and authority (Dotta, Monteiro, & Mouraz, 2019). Usually, veteran teachers can handle technology for personal purposes but need to realize how technology and pedagogy can be combined in meaningful ways, being important to prompt new experiences and to create comfortable and safe places for experimentation (Morgado, Lencastre, Freires, & Bento, 2021). As such, the authors also highlight the importance of school leaders' support, as well as pedagogical and technical support delivery by Training Centres, to the introduction of innovations in professional practices of veteran teachers. In this sense, Mouraz, Lopes, Morgado, and Torres (2020) sum up that school leadership, collaborative work among peers, professional development that aims to place teachers and their curricular decisions at the heart of training actions and digital technologies are essential elements in changing and innovating practices. Teachers' participation in exchange projects also provides them with more resilience to face problems, such as the ones related to the intergenerational gap.

Methodology

The study follows a qualitative approach based on interviews with headteachers of schools with a huge ratio of veteran teachers. It intends to highlight and map the facilitators and constraints lived in schools in the transition to online from the school leaders' perspectives. In this section, we start to introduce the participants of the study moving on, afterwards, to describing the study's data collection and analysis procedures.

Participants: the interviewed headteachers and their schools

This study participants were headteachers from seven school clusters of the North and Centre regions of Portugal (N=7) who kindly agreed to be interviewed. The veteran teachers that participated in the rekindle+50 project training courses worked in these school clusters, and most of the interviewing process had some relation with the effects of the rekindle+50 project training courses on the schools' veteran teachers. Table 1 introduces some basic features of the interviewed headteachers, as well as the proportion of veteran teachers in their schools.

Many headteachers pointed out the increasingly marked ageing amongst pre-school teachers and a few teachers from disciplinary groups of Basic Education, mainly from the 5th and 6th grades, which corresponds to the national trend (OECD, 2019a). We should also highlight that school A is the headquarters of one of the country's in-service teacher training centres more specialized in digital learning, including innovative learning environments. School B embodies a trend of schools in the inner part of Portugal, suffering from the depopulation, decrease in the school population and corresponding lack of renewal of the teaching staff that retired.

Table 8: Interviewed headteachers and proportion of veteran teachers in their schools.

Headteacher	Gender	Age	Time serving as headteacher	Education	The proportion of veteran teachers in his/her school
Α	Male	65	33 years	Electronic engineering	50 to 60%
В	Male	61	21 years	Financial audit and Educational administration	58%
C	Female	56	11 years	History	50 to 60%
D	Female	54	8 years	Philosophy and Educational administration	70 to 80%
E	Male	47	7 years	Portuguese language; Special Education; Educational Administration	40 to 50%
F	Female	55	11 years	English and Educational Administration	40 to 50%
G	Female	57	17 years	Maths and Natural Sciences	40 to 50%

Data collection and analysis

The data was collected in interviews conducted online in June 2020 to headteachers from schools of veteran teachers participating in the rekindle+50 project. The interviews protocol pursued three aims as following specified: (a) to identify the composition of the school teaching staff and their renewal trends; (b) to highlight cultural dynamics and

concerns of each school related to curriculum and pedagogical development, collaborative work among teachers and teaching in the transition to online and distance learning; iii) to identify the main challenges and opportunities headteachers identified concerning their teaching staff skills to face the post-pandemic times.

The interviews recordings were transcribed and analysed through a content analysis performed by using NVivo® and combining a mix of pre-determined categories and emergent sub-categories. Pre-determined categories encompassed facilitators and barriers/constraints posed to schools in the transition to online learning environments, whereas sub-categories emerged from the headteachers' discourses.

Results: the headteachers' views

Facilitators of the transition to online learning

Amongst the main facilitators of the transition, the interviewed headteachers referred to institutional actions of planning, supporting and monitoring distance education and raising equipment to make it available to students (all headteachers), collaboration processes (C, D, E, F and G), previous experiences and training with digital education (A, C, E, F and G) and motivational factors including pressures to change through technologies (D, E, F and G).

One of the first main institutional actions most schools undertook to facilitate the transition to online learning was to raise equipment, support and expand connectivity through internal resources and partnerships with community entities such as local municipalities (referred by A, B, C and G). Headteachers A and G also highlighted extra care with communication through being open to the educational community concerns and sending clear, continued and equal information to all the educational community members, and particularly to students, to contradict the physical distance of school closure. For most schools, the first two weeks were essentially dedicated to establishing infrastructure, including digital platforms and institutional emails for teachers and students (referred by B, C, D and F). It was also a period to identify and assemble key resources and specialized staff due to previous experiences and training with digital education in the schools. Headteachers A, C and F highlighted existing expertise in their schools from past experiences with digital platforms (Moodle and Google Apps), whereas headteachers E and G pointed out some teachers expertise due to past engagement in Erasmus+ cooperation and exchange projects. When in March 2020, the Ministry of Education recommended schools to assemble internal technical support teams, the headteachers recruited teachers from such experiences, and many highlighted the extreme importance of such teams in supporting not only other teachers but also students and families (A, C, F and G). Internal professional development initiatives were provided to the teaching staff mostly to help the

exchange of experiences and expertise (referred by A, C, D, E and F) including workshops and production or recommendation of tutorials. Headteacher C also highlighted the provision of specific schedules for teachers to work collaboratively.

For the interviewed headteachers, such institutional actions opened avenues to enhance and sediment formal and informal *collaboration processes* essential for the teachers' capacity to effectively transition to the new teaching and learning environments. The collaborative support and work between teachers were highlighted by all headteachers except A and B as the most important facilitator of the transition. It was also a facilitator particularly underlined when the teachers' age and experiences were added to the equation, as illustrated by this idea that teachers "worked pretty well and I don't see any problem, any difference between new and old teachers within the same disciplinary groups" (C). Elaborating this idea, another headteacher explained that "in this difficult process, the older teachers tried hard not to be left behind, seeking help in some of the younger teachers" (G).

Concerning the specific engagement of veteran teachers, some *motivational factors* were also mentioned, that included the urge to keep up with the pace of educational changes and the efforts to adapt to new learning tools and environments responding to pressures from students and peers (E, F, G).

Barriers/constraints to the transition to online learning

In which concerns barriers/constraints to an effective transition to online learning, the headteachers pointed out motivational factors (A, B, C, E, F, G), relational and pedagogical constraints (B, D, D, E, F and G), the extensive inequalities in terms of access to equipment, connectivity and engaging special needs students (B, C, D, F, G) and related lack of digital competence from some teachers, students and families (C, D, E, F). Two headteachers also pointed out the lack of preparation to distance education given the novelty of the situation (school B) and the difficulty to navigate the excess of available digital platforms and tools, as well as of top-down daily issued legislation and recommendations (school C). Once again, apart from some motivational factors, most were posed to the whole teaching staff regardless of their age. After dealing with the establishment of infrastructure and lack of equipment and connectivity, most schools faced the challenges of poverty and disengagement of some students and families, and, most importantly, the lack of competence and autonomy of students to independently use the digital tools that were adopted or simply to complete the assigned tasks even if in more traditional supports (worksheets, textbooks). This often related to the more relational and pedagogical constraints that were mentioned. An initial problem was the excess of tasks that teachers assigned to students and the difficulty of students in managing tasks and schedules. The

close presence of the teacher to deal with the students' struggles and the lack of student autonomy was referred with the idea that "students usually studied just for tests and did not have the kind of work they now have to do independently to learn. In the end, they have to learn alone, they have to look for stuff alone" (D). The change in the pedagogical relation implied struggles in feedback and learning assessment. Some headteachers pointed out how teachers felt insecure about the validity of the assessment they made of student learning as well as of the feedback they provided to students and families. One headteacher explained that teachers "were not adapted to trust the kind of learning assessment that is being made, because we are insecure of what is on the other side (...) and if students are learning as well as of the feedback we produce" (B). Finally, the impossibility or refusal of some students and families to have their cameras on and some fears for data protection issues were also initial, though rarer, constraint in terms of pedagogical relation between students and teachers.

The more referred *motivational constraint* was the lack of commitment of some older teachers to the needed changes due to proximity to retirement, which led them to reproduce online the traditional methods they used in the classroom. The huge time and learning investment teachers had to made to produce learning resources with digital tools discouraged some of engaging with the online learning demands, as thus explained: "it is assumed that building resources in such tools take too long, and the investment people make is huge, which increases the teachers' tend to fall into traditional methods" (F). The already installed fatigue, discouragement and self-perception of insufficient preparation posed an extra challenge to those veteran teachers when facing the forced entrance in the emergency remote teaching scenery during the school closures of the COVID-19 pandemic first wave.

Final remarks

This paper draws attention to the need to reshape communication channels with students as one of the main barriers/constraints of schools' transition from emergency remote teaching to effective online learning during the first pandemic wave. The interviewed headteachers underlined the need to surpass the lack of equipment and connectivity, but also the challenges of poverty and disengagement of some students, and most importantly, the lack of students' autonomy to independently use the digital tools and engage in learning tasks. The headteachers also pointed out the inefficacy of some teachers' option to directly transpose pedagogical methods and learning activities to online environments. This was especially the case for those older teachers close to retirement. Such inefficacy was evident when teachers reproduced online the more traditional methods they used in the classroom and especially problematic when involving assessment features as also found in other studies (Doucet et al., 2020).

On the other hand, the main facilitators of the transition highlighted by the headteachers constituted the collaborative efforts from teachers and institutions to rapidly overcome problems related to "first aid" support: connectivity, equipment availability and usability. The collaborative support and work between teachers were also emphasized as a key factor of effective transition to a new pedagogical challenge.

As in all the participant schools, veteran teachers accounted for the majority of the teaching staff, the headteachers could not refer to a specific factor in this group. On the contrary, when having participated in innovation and exchange projects, some of those veteran teachers were agents of change and sustainers of innovation in their schools.

One can conclude that the "online challenge" could be seen as a renewal of teachers' commitment to teaching and curricular innovation mediated by digital technologies. This assumption is also valid for veteran teachers. However, to reach this aim, it seems that continuing to invest in professional development and collaboration to enhance more effective use of online learning tools and platforms with schools reopening is still urgently needed.

References

- Alves, K., & Lopes, A. (2016). Professores e o envelhecimento: realidades e especificidades no contexto português [Teachers and aging: realities and specificities in a portuguese contexto]. *Trabalho & Educação*, *25*(2), 61-77. Retrieved from https://periodicos.ufmg.br/index.php/trabedu/article/view/9511
- Carrilo, C., & Flores, M. A. (2018). Veteran teachers' identity: what does the research literature tell us? *Cambridge Journal of Education*, *48*(5), 639-656. doi:10.1080/0305764X.2017.1394982
- DGEEC. (2020). Estamos On com as Escolas: conhecer para apoiar. Medidas educativas e resultados do questionário às escolas [Were On with schools: to know to support. Educational measures and results from a survey to schools]. Lisboa, Portugal: Ministry of Education, Directorate-General of Education and Science Statistics, Retrieved from https://www.dgeec.mec.pt/np4/474/
- Dotta, L., Monteiro, A., & Mouraz, A. (2019). Professores experientes e o uso das tecnologias digitais: Mitos, crenças e práticas [Experienced teachers and the use of digital technologies: myths, beliefs and practices]. *Eduser: revista de educação, 11*(1), 45-60, doi:10.34620/eduser.v11i1.124

- Doucet, A., Netolicky, D., Timmers, K., & Tuscano, F. J. (2020). *Thinking about pedagogy in an unfolding pandemic* (An Independent Report on Approaches to Distance Learning during COVID-19 School Closure). Work of Education International and UNESCO. https://issuu.com/educationinternational/docs/2020_research_covid-19_eng
- European Commission/EACEA/Eurydice (2021). *Teachers in Europe: Careers,*Development and Well-being. Eurydice report. Luxembourg: Publications Office of the European Union. Retrieved March 24, 2021, from https://eacea.ec.europa.eu/national-policies/eurydice/content/teachers-europe-carreers-development-and-well-being_en
- Hodges, C., Moore, S., Lockee, B., Trust, T. & Bond, A. (2020, March 27). The Difference between Emergency Remote Teaching and Online Learning. Educause Review [Blog post]. Retrieved March 30, 2021 from https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning
- Menezes Junior, P. (2020). A Educação nos Tempos da Peste: uma análise sobre a representação da educação nos média na primeira vaga da pandemia [Education in Times of plague: an analysis of the representation of education in the media during the pandemic first wave]. Porto, Portugal: Faculdade de Psicologia e Ciências da Educação da Universidade do Porto, Unpublished Master thesis.
- Monteiro, A., Mouraz, A., & Dotta, L. T. (2021). Veteran teachers and digital technologies: myths, beliefs and professional development. *Teachers and Teaching*, *26*(7-8), 577-587. doi:10.1080/13540602.2021.1900809
- Moreira, J. A., Henriques, S., & Barros, D. M. V. (2020). Transitando de um ensino remoto emergencial para uma educação digital em rede, em tempos de pandemia [Moving from emergency remote teaching to digital education in times of pandemic]. *Dialogia*, *34*, 351-364. Retrieved January 15, 2021, from https://periodicos.uninove.br/dialogia/article/view/17123/8228
- Morgado, J. C., Lencastre, J. A., Freires, T., & Bento, M. (2021). Smart Education as Empowerment: Outlining Veteran Teachers' Training to Promote Digital Migration. *Technology, Knowledge and Learning.* doi: 10.1007/s10758-021-09494-6
- Mouraz, A., Lopes, A., Morgado, J. C., Torres, A. C. (2020). Veteran teachers and the challenges of curriculum innovation. In R. Dorczak, & A. Portela Pruaño (Eds.), *Generational diversity and intergenerational collaboration among teachers: perspectives and experiences* (pp. 153-165). Cracow: Spraw Publicznych Uniwersytet Jagiellonski.
- OECD (2019a). *Country note. Portugal. Education at a Glance 2019.* Paris: OECD Publishing.

- OECD (2019b). *TALIS 2018 Results: Teachers and School Leaders as Lifelong Learners.* Paris: OECD Publishing.
- Orlando, J. (2014). Veteran teachers and technology: change fatigue and knowledge insecurity influence practice. *Teachers and Teaching*, *20*(4), 427-439. doi:10.1080/13540602.2014.881644

Postic, M. (1984). Relação Pedagógica. Coimbra: Coimbra Editora.

UN (2020). Policy Brief: Education during COVID-19 and beyond. Retrieved January 19, 2121, from https://unsdg.un.org/resources/policy-brief-education-during-covid-19-and-beyond

Acknowledgements

This work was co-funded by the European Regional Development Fund (ERDF), through the Operational Programme for Competitiveness and Internationalisation (COMPETE 2020 Programme), and by National Funds through the Portuguese funding agency (FCT—Fundação para a Ciência e a Tecnologia, IP) (project no. PTDC/CED-EDG/28017/2017 - POCI-01-0145-FEDER-028017). The research was also supported by the FCT within the multi-year funding awarded to CIIE [grants no. UIDB/00167/2020 and UIDP/00167/2020]. Ana Cristina Torres and Angélica Monteiro also acknowledge the FCT funding for their research contracts at CIIE, established under the transitional rule of Decree-Law 57/2016, amended by Law 57/2017. Angélica Monteiro acknowledges as well FCT for her new post in the framework of the Scientific Employment Stimulus Individual Programme (2020.01982.CEECIND).