Teachers and Teaching
theory and practice

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/ctat20

Battling to keep education going: Chilean and Portuguese teacher experiences in COVID-19 Times

Beatrice Ávalos, María Assunção Flores & Sebastián Araneda

To cite this article: Beatrice Ávalos, María Assunção Flores & Sebastián Araneda (2022) Battling to keep education going: Chilean and Portuguese teacher experiences in COVID-19 Times, Teachers and Teaching, 28:2, 131-148, DOI: 10.1080/13540602.2021.2012758

To link to this article: https://doi.org/10.1080/13540602.2021.2012758

Published online: 22 Dec 2021.

TEACHERS AND TEACHING
2022, VOL. 28, NO. 2, 131–148
https://doi.org/10.1080/13540602.2021.2012758

Routledge
Taylor & Francis Group

Battling to keep education going: Chilean and Portuguese teacher experiences in COVID-19 Times

Beatrice Ávalos[a], María Assunção Flores[b] and Sebastián Araneda[a]

[a]Centre for Advanced Research in Education, University of Chile, Santiago, Chile; [b]Research Centre on Child Studies, Institute of Education, University of Minho, Braga, Portugal

ABSTRACT

The article presents results of studies in Chile and Portugal during COVID-19 lockdowns and remote teaching conditions. In each of both countries, over two thousand teachers of all school levels and types were surveyed during a two-month period on their professional experiences in the first year of remote teaching. The article discusses teacher accounts of how their work changed, their difficulties, impact on well-being, as well as new professional learning brought about by the challenges involved. Conceptually, the study relied on notions of occupational professionalism, self-efficacy perceptionsand collegial support in challenging circumstances. Results in both countries highlighted an impact on teacher occupational professionalism and self-efficacy perceptions, mainly brought about by intermittent levels of engagement of students during remote teaching sessions, and difficulties in carrying out proper assessments of student learning. Student well-being was of greater concern to teachers than their own problems, despite feeling the stressful effect of much longer daily working hours, more so among Chilean than Portuguese teachers.

The study also brought out teachers' imaginative efforts and the use of unaccustomed pedagogic strategies to reach out to students and insure some level of learning, especially among those without internet connectivity.

ARTICLE HISTORY
Received 2 February 2021
Accepted 26 November 2021

KEYWORDS
COVID-19 effects on teachers and teaching; teacher occupational professionalism and student engagement; collaboration and teacher well-being; technology and teacher new learning

1 Introduction

In early 2020 the bug flew into Portugal and Chile. The experience was new for the Portuguese people though it had already arrived elsewhere. It was also new for Chileans many thousands of miles away. It was early in March and schools were engaged in their usual teaching activities. On March 15, as cases went on the rise in Chile, and on March 16 in Portugal, schools were closed and teachers were hit with the notion that they would have to find ways to teach their students remotely, preparing materials to be delivered from school premises to students or parents and adopt remote teaching procedures. It was not simple, to start with. An early survey in Chile, reported that only 20% of student homes had adequate internet connection and that for another 46% connectivity was limited or null (Educación, 2020, p. 2020).

CONTACT Beatrice Ávalos bavalos254@gmail.com Alsacia 150, Departamento 33 Las Condes Santiago Chile 7550073

Faced with the complexities of this new situation, educational government authorities acted to support teaching and learning in the diversity of socio-economic and geographical contexts of each country. In Chile, this included providing an online educational platform (*Aprendo en Línea*), abridging the school curriculum, and sending out of a variety of educational and curriculum materials to teachers, students and their families. Teachers, received software G Suite for Education and Office 365 for their lesson preparation and online professional development opportunities (Ministry of Education Chile, 2020). In Portugal, immediately after schools were closed, education authorities provided schools with a *Roadmap and Guiding Principles for the Implementation of Remote Teaching (E@D) in the School*. They also set up a television programme with educational material mainly for students without access to internet or equipment (*#EstudoEmCasa*), but also usable by teachers. The programme was supplemented through a *Support for Schools* website with access to a variety of teaching materials. In addition, schools were provided with a training course on 'Digital and Network Teaching' to assist them in organising distance learning activities. A complex new educational life had begun for schools, teachers, students and their families.

This paper contributes to knowledge being gathered around the world on how teachers met the pandemic challenges with diverse degrees of support from their schools, attended to their students' needs and efforts to continue with school work in the changed circumstances, and combined experience with new knowledge. It provides comparative data on teachers perceptions about their work, their students' engagement and well-being, as well as resulting professional learning. To this end, the article presents results from similarly worded national surveys applied to teachers in Portugal and Chile who were active in pre-school, primary and secondary level classrooms in 2020.

The rationale for engaging in this study was to examine how teachers in two geographically distant contexts were facing in professional terms their new school and teaching situations. Chile and Portugal are both similar and dissimilar countries. According to the most recent World Bank's classification (The World Bank, 2021) both are high income countries and have similar education level indicators. However, they differ in their Gini coefficient indexes (OECD, 2021), as Chile has a higher socio-economic inequality level compared to Portugal (Gini coefficients: Chile 0.46 and Portugal 0.31). The two countries also differ in their public expenditure per student (IES National Center for Education Statistics, 2021),which in 2017 for a full-time equivalent student was higher in Portugal (US$20,000) compared to Chile (US $5,500). In learning results, Portugal ranked above Chile in the 4th grade Mathematics TIMMS 2019 test (IEA TIMSS & PIRLS International Study Center & Boston College, 2019) as well as in PISA 2018 study (OECD, 2019a). On the other hand, as far as use of technology for teaching purposes prior to COVID-19, 63% of Chilean teachers indicated in the TALIS 2018 survey (OECD, 2019b) that they 'frequently' or 'always let students use ICT for project or class work' compared to 57% of Portuguese teachers who had the same experience.

Considering the above stated similarities and differences between Chile and Portugal, it seemed of interest to examine how teachers in both countries experienced and managed a global critical situation such as brought about by COVID-19. To this end, the study sought to respond the following questions:

(1) How did teachers experience the challenges of teaching in the new scenario in terms of: their occupational professionalism as expressed in teaching activities and technological capacity, student engagement and school community support?
(2) How did teachers estimate the impact of COVID-19 on their own and their students' lives and well-being?
(3) What kind of new or different professional learning did teachers believe to have gained?
(4) How did Portuguese and Chilean teachers differ in relation to the above teaching and professional areas, and what factors were related to such differences?

2 Conceptual framework and related studies on teachers in the pandemic

Teacher engagement in furthering students' learning rests on their occupational professionalism, that is, on how appropriately they define their tasks and responsibilities (Evetts, 2009). A key factor in this professionalism is the extent to which students matter to teachers both as persons and as learners (Day et al., 2007; Nieto, 2005; Tenti Fanfani, 2006), as well as their reflective understanding of students' background and learning capacities (Sellars, 2012). In turn, student response or engagement in teaching activities, a promising condition for learning, is affected by the quality of how they relate to teachers and other students (Quinn, 2016). Both teaching experiences and student results, impact on the quality of teacher self-efficacy perceptions (OECD, 2019b; Tschannen-Moran & Hoy, 2001). Beyond the direct quality of classroom interactions, teachers are better able to face the complexities of teaching if their working conditions are adequate (Kraft et al., 2020), and if they encounter satisfactory and stimulating relationships with colleagues and their school communities (Engels et al., 2008; Van Maele & Van Houtte, 2012).

The manner in which the above factors interact around teacher occupational professionalism and concern for students is illustrated in the figure below.

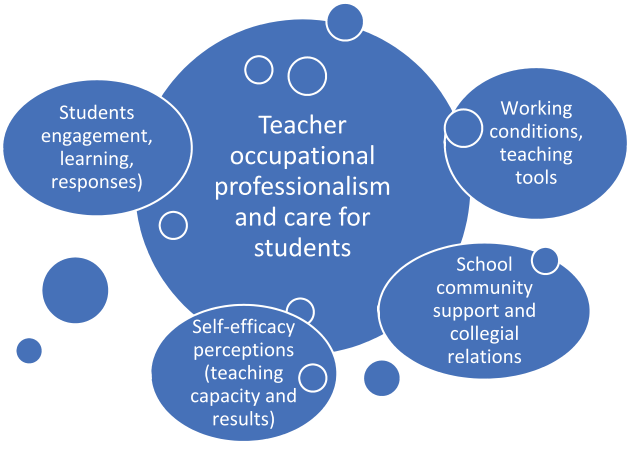

Figure 1. Teacher lived professionalism and its factors.

While the above figure illustrates the normal or quasi normal pattern of relationships in how teachers face their teaching tasks and demands (Opfer et al., 2011), the irruption of COVID-19 around the globe altered the core around which these factors interact, that is, teacher-student relationships. In order to learn about this impact, we identified a group of 37 studies conducted in different world locations from which we selected those that illustrated disruptions in teaching as illustrated in conceptual scheme above.

2.1 Teaching in changed conditions: the support of school communities

The movement from face-to-face to remote/on-line teaching required that teachers engage in very time-consuming preparation and delivery forms that students could access and understand. What challenges were involved in this, was the theme of a large study by Kraft et al. (2020) covering 7,800 teachers in the USA by means of two comprehensive survey waves (2019/2020). The study centred on the complexities experienced in having to work from home at the start of the pandemic, on how teachers balanced family and teaching demands and on the impact of these experiences when they returned to school teaching. Among its general findings was that teachers' sense of success in their teaching work diminished from pre- to post-pandemic settings. Such experience, however, was less frequent in schools with supportive leadership and communication systems, that provided professional development, where teacher efforts were recognised and they could engage in collaboration with other teachers. In these schools, teachers' sense of success was maintained or enhanced. Similar results were found in a small interview study in Germany with teachers in 20 vocational schools (Delcker & Ifenthaler, 2021). The teachers emphasised the important role of their schools' leadership in providing the needed technological infrastructure to help them manage the disruptions of teaching. They also highlighted the supportive role of teacher collaboration, of their students as well as of the students' training companies.

2.2 Teacher lack of technological preparedness

In his analysis of the state of teacher preparation to face the COVID-19 challenges, Schleicher (2020) concluded that teachers in most of the education systems covered by the PISA 2018 international student assessment (OECD, 2019a) were unprepared for digital learning. Only younger teachers exposed to use of technology during their formal preparation or employing it in teaching activities could be considered prepared for the pandemic requirements. And among teachers responding the TALIS 2018 (OECD, 2019b) survey, only 60% had benefitted from professional development in Information CommunicationTechnologies (ICT). A report by UNESCO (October, 2020), based on information from ministries of education in over 100 countries, also noted differences by country income level in their capacity to track student learning, improve connectivity, support teachers and offer special training in ICT skills. Between 25% and 31% of low-income countries were not providing any of these needed conditions for teaching in COVID-19 conditions. Besides the former kind, specific country studies have also examined these issues. Hassan et al. (2020) reported on problems in India with bandwidth, internet connections and support for teachers in the use of online platforms, leading them to an extended use of WhatsApp communication with students. In Sweden, a survey of 153 teachers by Bergdahl and Nouri (2020) brought out their concerns about

lacking pedagogical preparedness to teach remotely. And, despite prior experiences in Sweden with hybrid forms of teaching, a third of teachers in this study reported limited access to digital learning material.

2.3 Teacher well-being

A large study of 1,479 teachers in Portugal (78.6% female) by Alves et al. (2021)unveiled a decrease in teacher well-being, as well as lowering of their professional commitment and long-term perspectives. Being a male and having longer teaching experience were strong factors in decreased teacher well-being and appreciation for the profession. In Canada, a longitudinal study conducted at two points of time during the pandemic, examined variations among teachers in their feelings and experiences including burnout, levels of stress, coping and self-efficacy (Sokal et al., 2020). The first application involved a correlational survey of 1,686 teachers all over Canada. Among its findings was a significant correlation between resilience and lesser burnout levels with positive attitudes to technology, change and with self-efficacy perceptions. With the passage of time, as evidenced from the second application of the survey, teachers, although more negative about online teaching, were also better accomplished in what they were doing and in managing student behaviour online, indicating also higher levels of self-efficacy. A study of 380 teachers in secondary grammar and special education classes in Germany, examined their stress levels and coping strategies during lockdown (Klapproth et al., 2020). Overall teachers experienced moderate to high levels of stress, associated with having to plan and teach more than four hours, more so in secondary grammar schools than in the special education classes. Despite these difficulties most teachers coped functionally (i.e. seeking colleague's assistance) rather than in dysfunctional ways (i.e. giving up, alcohol drinking). Functional coping occurred when the problems experienced were connected to external factors such as parent low motivation. Dysfunctional coping occurred when teachers attributed the problems to themselves. Although female teachers were more stressed they were also more inclined to use functional coping strategies than their male counterparts.

2.4 Student engagement and online learning conditions

Student conditions such as socio-economic status and tools at their disposal to engage in learning activities have been widely examined in diverse studies. In the two-wave Canadian study referred to above (Kraft et al., 2020) teachers reported variations in their students' regular levels of engagement in distance learning from 40% or less to over 70% of students, depending on student race and socio-economic conditions. In England and the USA, a comparative study of news media coverage brought out teacher and parent statements about difficulties in online lesson engagement as mainly faced by students from disadvantaged social groups (Greenhow et al. (2021). The study also concluded that English policy makers had been able to provide a more coordinated education response to the pandemic than did those in the USA. In Portugal, responses to an online teacher survey (n = 2,369) also highlighted difficulties in providing a universal and

inclusive response to student needs despite positive perceptions of collegiality and mobilisation of school community resources to deal with the forced transition to remote teaching ((Flores et al., 2021).

Interviews with teachers of 3 to 6 aged children (Dias et al., 2020) working in public schools in the USA and five Latin American countries, also brought out the lack of technological equipment and internet in the homes of many children. In these contexts, teachers learned to manage communication by sending out videos to caregivers with instructions on how to guide the children's learning and by posting of lessons in Facebook or WhatsApp. In turn, they received photos or video-recordings of the children's work for assessment and evidence of learning.

3 Data sources and methods

3.1 The population studied

The study was based on surveys to teachers in Chile and Portugal who were active in all school levels. In Chile the survey was sent out to a teacher data base belonging to EduGlobal an institution that carries out national teacher surveys (https://eduglobal.cl) as well as to the teacher union affiliates. A total of 2,205 valid responses were received. The Portuguese survey was administered through teacher professional associations and three teacher unions, and 2,638 valid responses were received. The Chilean survey period covered from 25 May to 29 June 2020 while the Portuguese survey did so from 12 June to 12 July 2020. Teachers in both countries were explained the goals of the project and asked to provide informed consent prior to completing the survey, in line with requirements of the relevant university institutions.[1] All of them confirmed their voluntary informed consent to participate in the study. A similar number of responses were received in both countries as shown in the following table (see Table 1)

Table 1. Teachers studied and their work contexts.

Chile	Portugal
Nº of teachers: 2205	Nº of teachers: 2638
Gender: 76.3% women	Gender: 83.3% women
Years of experience:	Years of experience:
• Over 35: 4.3%	• Over 35: 13%
• 26–35: 15.5%	• 26–35: 38.8%
• 16–25: 20.6%	• 16–25: 34.3%
• 6–15: 42.9%	• 6–15: 10.3%
• 5 or less: 4.3	• 5 or less: 3.6%
Teaching level:	Teaching level:
• Basic: 55.3%	• Basic: 44.7%
• Secondary: 29.2	• Secondary: 38.9%
• Pre-school: 10.2%	• Pre-school: 7%
• Special education: 5.3	
Type of school:	Type of School:
• Public: 35.2%	• Public: 96%
• Private subsidised: 42.3%	• Private: 4%
• Private: 18.4%	
• Other (hospital/jail): 3.9%	
Student socio-economic status:	Student socio-economic status:
• High: 12.1%	• High: 2.6%
• Middle: 26.7%	• Middle: 65.8%
• Low: 40.6%	• Low: 31.6%
• Very low: 20.6%	

The distribution of teachers responding the survey roughly reflected the teacher population in both countries: 73% female teachers in Chile and 78% in Portugal, as well as school types. In Chile, there are two types of publicly funded schools via a voucher system: publicly administered (45.1%) and privately administered (48.9%). In Portugal 90% of schools are public. The distribution of Chilean students by socio-economic status (SES) is reflected in the type of school attended with the lower SES students attending the publicly-administered schools (Elige Educar, 2020)

The teachers surveyed taught in schools located in all of the main geographical regions of both Chile and Portugal. In Chile, more than two thirds of teachers (74%) worked in the three biggest regions (Metropolitan, Valparaiso and Bío Bío) out of sixteen in the country. In Portugal, 73% of teachers were located in the North, Centre and Lisbon regions and the rest in the smaller locations (Alentejo, Algarve, R. Autónoma da Madeira, and Azores).

3.2 Main survey characteristics

A common survey format was discussed and produced in Spanish and Portuguese by researchers in both countries. The survey comprised 26 items and was administered on-line using the Qualtrics software. In its first section, it requested information on teacher background, teaching level and school context (geographical location, type of school, student SES), teaching load, and experiences during the shutdown period. The second section inquired about the kind of teaching activities being conducted at the time of the survey (synchronous, asynchronous and mixed) and the perceived extent of student engagement in remote-teaching. The third section included a set of scaled items[2] with 5 options (not-at-all /very-much-so) on how teachers perceived their (a) previous week's teaching experience; (b) overall on-line/remote teaching experiences; (c) problems encountered with the new forms of teaching; (d) concerns/worries; (e) capacity to manage problem situations; and (f) involvement and support provided by their school community. In addition to these items, the survey included open-ended questions dealing with: (a) Face-to-face contact with a student and what was learnt from the experience; (b) Fairness of being compelled to teach at-a-distance and how could such teaching be improved; and (c) professional learning and a successful example of teaching in the week prior to the survey's administration. The items of the survey were tried out for understanding and content validity with a relevant group of practicing teachers in both Chile and Portugal, who provided written suggestions for improvement of item wording.

3.3 Data analysis procedures

Besides descriptive statistics, we used exploratory factor analysis to examine the scaled items, as well as two-independent sample t-tests to compare item responses considered to be important for the purposes of the study. Qualitative data was examined using NVivo software with an initial exploratory analysis and formulation of categories based on the initial analysis. Quotations derived from open-ended responses serve to illustrate these categories.

4 Results

4.1 The impact of COVID-19 on teachers' professional experiences

At the time of the surveys' administration almost all Chilean teachers were working in remote teaching form (97.6%) as compared to 71.5% in Portugal, although less than 2% in both countries did so for the entire school day. Around a third of the surveyed teachers had contact with their students at least once a day (38% in Chile and 27% in Portugal). To facilitate their work over two thirds of teachers sent out weekly materials to students or their parents (70% in Chile and 63% in Portugal). As far as student engagement in asynchronous forms of teaching, Portuguese teachers estimated a much higher proportion of daily involvement of their students, than did Chilean teachers (see Figure 2 below). In what follows, we examine how teachers viewed the challenges of their new forms of teaching and the extent and manner of their students' response. We also present teacher short narratives about their learning from the new forms of teaching experiences.

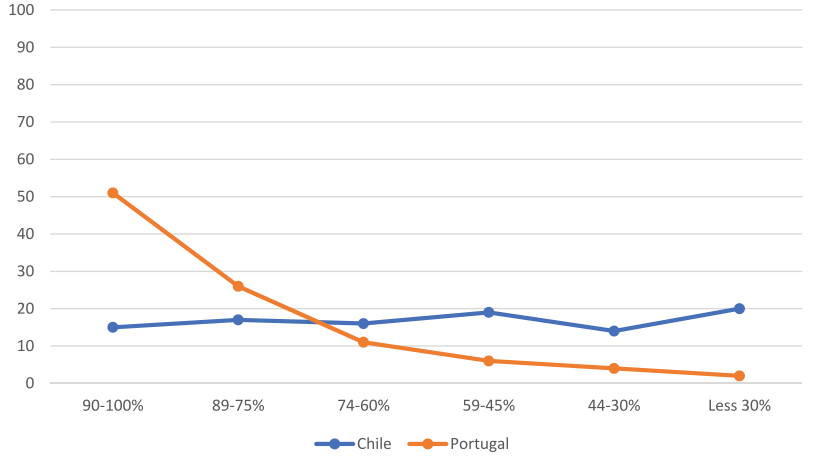

Figure 2. Proportion of students participating daily in online lessons: teacher estimations.

Table 2. Chilean and Portuguese teacher challenges during Covid19 teaching (1 = Not at all; 2 = To a small extent; 3 = Moderately; 4 = To a large extent; 5 = To a very large extent).

	Chile			Portugal			
	N	Mean	SD	N	Mean	SD	T-test
I have been able to:							
Keep my students 'on board'	1821	3.07	0.893	2076	4.41	0.612	0.000
Teach as planned	1838	2.94	1.035	2076	3.70	0.952	0.000
Assess students adequately	1805	2.49	1.101	2076	2.70	1.091	0.000
I have found it difficult to:							
Prepare for lack of time	1820	3.24	1.094	2076	3.63	0.900	0,000
Manage student technical problems	1804	3.26	1.020	2076	3.26	0.749	0.911
Motivate students' participation during lessons	1806	3.00	1.029	2076	2.95	0.908	0.085
Manage my technical difficulties	1815	2.82	1.174	2076	2.68	0.941	0.000

Table 3. Student response to online or distance teaching: Teacher perceptions (1 = Not at all; 2 = To a small extent; 3 = Moderately; 4 = To a large extent; 5 = To a very large extent).

	Chile			Portugal			
	N	Mean	SD	N	Mean	SD	T-test
Take work seriously	1795	3.67	0.993	2045	4.13	0.849	0.000
Study and do assignments	1797	3.36	0.989	2059	4.01	0.826	0.000
Understand lesson contents	1728	3.46	0.917	2043	3.84	0.763	0.000
Enjoy lessons	1580	3.28	1.011	1978	3.83	0,794	0.000
Satisfied with lessons	1567	2.93	1.101	1901	3.05	1.066	0.002
See their advantages	1568	2.54	1.003	1869	2.69	0.919	0.000
Find lessons useful	1748	2.98	0.965	1982	3.18	0.977	0.000

Table 4. School community support (1 = Not at all; 2 = To a small extent; 3 = Moderately; 4 = To a large extent; 5 = To a very large extent).

	Chile			Portugal			
	N	Mean	SD	N	Mean	SD	T-test
In general, I am satisfied with the school	1660	3.45	1.132	1914	3.66	1.009	0.000
Headteacher responds appropriately	1666	3.57	1.144	1914	3.75	1.031	0.000
Good solutions in difficult times	1669	3.24	1.098	1914	3.51	1.003	0.000
Headteacher provides support	1660	3.07	1.326	1914	3.28	1.199	0.000
Appropriate flow of information	1671	3.23	1.171	1914	3.72	0.935	0.000
We manage jointly the pandemic issues	1656	3.38	1.174	1914	3.50	1.120	0.002
There is concern for teachers	1668	3.40	1.177	1914	3.49	1.096	0.012
The pedagogic authority helps out	1659	3.21	1.354	1914	3.39	1.203	0.000
Support teams respond appropriately	1654	3.16	1.272	1914	3.05	1.198	0.007
I know whom to go for help with teaching difficulties	1656	3.22	1.283	1914	3.42	1.128	0.000
There is concern for students	1674	4.07	0.923	1914	4.07	0.864	0.829

4.1.1 Meeting the challenges

Perhaps the greatest challenge teachers faced in the new circumstances was having to adapt or/reinvent their teaching forms, while respecting what in their professional judgement was important in their usual ones. To learn about this, we asked teachers to estimate the extent to which they had been able to teach as planned, assess students adequately and keep their students 'on board'. We also asked them about time to prepare, motivation of students and possible technical difficulties they might have had in connecting. As presented in (Table 2) below, Portuguese teachers were significantly better able to deal with teaching as planned, assessment and student engagement compared to their Chilean colleagues. As far as perceived problems are concerned, both groups were moderately worried about motivating their students and managing their technical problems, while Chilean teachers had greater worries than their Portuguese colleagues about time to prepare lessons and ability to handle their own technical problems.

4.1.2 Student engagement

Asked about their students' reaction or response to online or asynchronous forms of teaching, Portuguese teachers were significantly more positive than their Chilean counterparts in their estimations about student work commitment, understanding and enjoyment of lessons (see Table 3 below). On the other hand, both groups of teachers thought

Table 5. Chilean teachers' causes for concern (1 = Not at all; 2 = To a small extent; 3 = Moderately; 4 = To a large extent; 5 = To a very large extent).

Factor	Items	Factor Loadings
Factor 1: Personal and family concerns	My children's health	0.793
Mean 3.74 SD: 0.94	My personal health	0.788
Cronbach Alpha: 0.88	My partner's health	0.774
	My children's emotional well-being	0.724
	My own emotional well-being	0.719
	My parents' health	0.714
	Financial problems	0.542
	Job security	0.523
Factor 2: Concerns for students and their families Mean: 4.36	My students' emotional well-being	0.860
SD: 0.70	My students' family economic problems	0.707
Cronbach Alpha: 0.73	My students' learning achievement	0.593

KMO = 0.84; Bartlett test: 0.000; Explained variance: 59.4%.

Table 6. Portuguese teachers' causes for concern (1 = Not at all; 2 = To a small extent; 3 = Moderately; 4 = To a large extent; 5 = To a very large extent).

Factor	Items	Factor Loadings
Factor 1: Personal and family concerns Mean: 3.01 SD: 0.99 Cronbach Alpha:0.89	My children's health	0.938
	My children's emotional well-being	0.894
	My partner's health	0.724
	My parents' health	0.662
	My own emotional well-being	0.599
	My personal health	0.597
	Financial problems	0.526
	Job security	0.483
Factor 2: Concerns for students and their familiesMean 4.14 SD: 0.71Cronbach Alpha: 0.80	My students' emotional well-being	0.814
	My students' learning achievement	0.717
	My students' family economic problems	0.682

KMO = 0.84; Bartlett test: 0.00; Explained Variance: 61.1%.

less of students' satisfaction and whether or not their students saw advantages and usefulness in this form of teaching, but again Portuguese teacher ratings were significantly higher in these aspects.

Perceptions about the degree of student engagement in distance teaching was different depending on student socio-economic conditions. In relation to the categories in (Table 3) above, Chilean teachers gave better participation ratings to students with higher SES, followed by middle SES, and lesser ones to students in the low/very low SES group. This was not the case with Portuguese teachers, who tended not to differ significantly in their ratings between levels of SES groups.

4.1.3 School community support

Teachers are part of a school community which besides its students, involves leadership, colleagues, parents, a concerted climate expressed in the school's organisation and functioning mode, work towards agreed goals as well as mutual support in challenging

or difficult circumstances such as those posed by the pandemic. We asked teachers about these conditions in their schools. As shown in (Table 4) below satisfaction was more than moderate for both groups, though significantly higher among Portuguese teachers. Interestingly, however, both groups of teachers gave equal high ratings to their school's concern for students.

4.2 Impact of Covid-19 on teachers and students' lives

4.2.1 Teachers and students' well-being

Teaching and learning in the COVID-19 contexts led to transformations in the everyday lives of teachers and students, such as having to convert their homes into open classrooms to which all members of family could have access, as well as losing touch with colleagues, friends and schoolmates, feeling the stress of daily demands as well as the lack of key tools for successful engagement in the new mode of teaching (computers, appropriate internet connections and technical know-how). Teachers were asked to rate the extent to which they felt worried about situations referring to themselves and their family, and about those referring to their students. Factor analysis of teacher responses in both countries brought out two factors: concern about students and their families and concern about teachers and their families. In both countries, teachers were more concerned for their students than for their families, although this concern was somewhat higher among Chilean than Portuguese teachers. (Tables 5 and 6) below present results of this factor analysis:

4.2.2 Home conditions, technical capacity and student engagement difficulties

Regarding home conditions teachers in both countries were more concerned about keeping a distance between their home life and work demands. Lack of an appropriate workplace, of help with their children or having to carry out other responsibilities, was not cited as a major problem. In terms of technical capacity teachers in both countries had some level of concern about their lack of software management knowledge, access to computer or tablet and inadequate internet connection (see Table 7).

Table 7. Teacher home and technological conditions (1 = Not at all; 2 = To a small extent; 3 = Moderately; 4 = To a large extent; 5 = To a very large extent).

	Chile			Portugal			
	N	Mean	SD	N	Mean	SD	T-test
Lack of appropriate workplace	1737	2,45	1,440	1944	2,10	1,217	0,000
Lack of help with children and other responsibilities	1734	2,21	1,458	1944	2,30	1,356	0,046
Keeping the distance between home and work	1737	3,16	1,456	1944	3,33	1,310	0,000
Lack of software management knowledge	1781	2,00	1,107	1986	2,40	0,972	0,000
No access to computer/tablet	1764	1,71	1,113	1986	1,77	1,064	0,073
Inadequate internet connection	1771	2,07	1,272	1986	2,07	1,093	0,949

Regarding the extent of their students' difficulties in taking part in asynchronous lessons, Chilean teachers gave significantly higher ratings to home distraction and student feelings of being overwhelmed with it all than did Portuguese teachers. They did not differ in their concerns about student participation difficulties in asynchronous lesson, and in beliefs that students were not sufficiently concentrated during lessons. See table 8 below

Table 8. Teacher perceptions about student factors affecting participation in teaching activities (1 = Not at all; 2 = To a small extent; 3 = Moderately; 4 = To a large extent; 5 = To a very large extent).

	Chile			Portugal			
	N	Mean	SD	N	Mean	SD	T-test
Distraction at home	1636	3,62	1,012	1780	3,35	0,891	0,000
Lack of concentration	1606	3,20	0,989	1935	3,18	0,784	0,540
Overwhelmed	1692	3,15	1,139	2028	3,46	0,972	0,000
Participation difficulties	1755	3,00	1,043	2054	2,97	0,843	0,225

4.3 Declared teacher professional learning

While for teachers having to engage abruptly in new forms of teaching meant increased effort as well as personal stress, it was also seen as an opportunity for new professional learning. Responding to one of the relevant survey items both Portuguese and Chilean teachers agreed that 'new learning had helped their teaching'. They further elaborated on the meaning of this 'new learning' in responses to one of the open-ended questions of the survey.

Both groups of teachers clearly indicated that their new learning occurred in four main areas, besides others that were less cited: (a) managing the translocated teaching scenario; (b) learning to use new tools; (c) developing different forms of communication and collaboration with colleagues, and (d) emotional learning.

4.3.1 Translocation of the teaching scenario: from school to platforms

Very soon on, teachers had to find instruments and forms that would allow them to communicate with students. These were 'tools I did not know about in face-to-face teaching', declared a Portuguese basic school language teacher with 20 years of experience. A Chilean basic school teacher with 5 years of experience, commented on the speed and challenge required 'to know, learn and develop material for appropriate teaching and learning using online platforms'. Both these teachers worked with middle level socio-economic students. In the new scenario, tools had names such as Google Meet, Zoom, Mentimeter (a presentation software), Google Classroom, Teams, as well as names of platforms developed in each country to assist teachers with their online work. Beyond using these 'ready-made' tools, teachers also had to learn how to develop their own in order to restructure their usual teaching forms and meet the requirements of translocated 'classrooms':

> Using platforms for formative assessment that provide feedback in real time as well as independent work on the part of some pupils, helped those who face more difficulties *(Portuguese basic school language teacher, 39 years of experience, low SES school,).*

> Developing videos or learning capsules helped students to observe, analyse, reflect and hold a critical view about some curricular contents and apply this to everyday life (*Chilean basic teacher, 16 years of experience, public low SES school).*

4.3.2 Difficulties in learning to use the new tools

As in many other countries, there was minimal initial preparation for the changed forms of teaching, while access to professional development on how and what to do only occurred later on. Teachers had to learn on their own and this was not simple.

> I think that it was sheer effort. The time spent watching tutorials and following other teachers in social networks, enabled me to handle in a somewhat better way the platforms and technological resources I was using in my online classes (*Chilean, private school English secondary teacher, 17 years of experience*).

> I learned to do everything online; tests, lessons, projects, etc. I invested a lot in this kind of learning (*Portuguese secondary language teacher, 30 years of experience, medium SES school*).

4.3.3 New forms of communication and collaboration with colleagues

Apparently, teachers were completely alone with students in their daily efforts to assist their learning, yet this was not necessarily so. Using their developing technological expertise, teachers in Portugal and Chile engaged in consultations and team work with school colleagues as also with parents.

> Platforms such as Zoom, WhatsApp, Google Meet and others helped me to connect with all the teacher teams in the school. We coordinate work in order to support participation of all students, as well as those in the Inclusion programme, ... I have been able to check on the kind of homes they have and whether parents keep an eye or not on their children's learning (*Chilean secondary language teacher, in low socio-economic school, 22 years' experience.)*

> I notice that parents are developing digital competencies and assisting with their children's homework *(Portuguese basic school teacher, 35 years of experience, in low SES school).*

4.3.4 Emotional learning

Different teachers highlighted learning about the importance of non-cognitive factors, both personal ones as well as referred to relationships with students. These are some examples:

> Surprise, emotion! I learnt that with a phone call, my student's state of mind and my own improved in a positive way . . . I also learned to listen attentively *(Chilean basic school teacher, 27 years of experience, in low SES school).*

> I think that our bonds with other people were reinforced, that we developed social competences and that we all ended up placing more value on schools and teachers. *(Chilean basic school language teacher,15 years of experience in low SES school).*

4.3.5 Other declared forms of learning

Besides the above categories which were those more frequently mentioned by both groups of teachers, there were variations that suggest a future impact of the distance-teaching experiences upon return to face-to-face teaching modes. Below are some examples of teacher statements:

> I learned about the need to be very explicit in dealing with students, especially in the distance form of teaching. I learned that a wholesale approach is more rewarding than one specifically focused on one learning outcome (*Chilean secondary school English teacher, 1 year of experience in a low SES school*).

> In two weeks, I had to learn a lot about the new tools. I didn't even know the name of some of them. But I found them very useful and will definitely use them in face-to-face teaching *(Portuguese basic sschool social studies teacher, 38 years of experience, medium SES school).*

> Learning platforms may also be useful in face-to-face teaching including homework and assessment assignments. Platforms are stimulating and they require less use of paper. Online meetings have also proved interesting, quicker and effective. *(Portuguese basic school teacher, 18 years of experience, low SES school).*

> Learning about apps, connectivity and digital platforms has been enormously useful, and undoubtedly will continue to be so when we return to face-to-face teaching *(Chilean basic school teacher, 17 years of experience in low SES school).*

5 Discussion and conclusions

In what follows we respond diagonally to the four research questions declared initially and to how findings connect with the conceptual framework illustrated in Figure 1 above. The main purpose of the study presented in this article, was to examine how teachers in Chile and Portugal were holding on to their commitment to education in an abruptly transformed teaching scenario. We described this commitment as part of teachers' 'professionalism' (Evetts, 2009) and as influenced by students and their engagement during teaching activities, by their self-efficacy perceptions, by how they adapted to the teaching conditions into which they were thrust as well as by their feelings of being part (or not) of supportive school communities. Below we reflect on how these aspects were manifested in the survey responses and attempt to interweave these responses so as to bring out the nature of teacher overall experiences in the first months of distance teaching.

5.1 Teachers' work in the changed scenario

As in so many other countries, teachers had to reassemble their skills into new forms of teaching. Being unsure of how effectively they could reach their students, teachers activated different communication systems. These ranged from physical delivery of learning materials or WhatsApp messages to students without online connection, to use of teaching and learning platforms for online communication at least part of the school day or week. Their usual sense of efficacy was challenged by concerns about how to engage in the usual rituals of planning, communicating and assessing in forms that would be meaningful and accessible to students.

We reached the teachers in this study after three to four months of remote teaching when they had a greater sense of being able to cope and even of getting some results from their teaching. However, they maintained a host of reasonable concerns about the process including the time needed to invest in lesson preparation, more so in the case of Portuguese teachers (73%) than Chilean ones (30%). Both groups of teachers had

difficulties in motivating student participation during lessons, although less so in the case of Portuguese teachers. And, although teachers endeavoured to cope with teaching requirements in the diverse geographical and social contexts in which they worked, in their professional judgment they perceived their work as less than satisfactory.

5.2 Personal and student well-being

As in similar surveys carried out in Chile (IIE, CPDP, SUMMA, Costadigital, PUC, OPED, 2020) and in Portugal (Alves et al., 2021) teachers in both countries experienced relatively high levels of stress. Although personal problems were rated as less problematic compared to those of their students, these nevertheless impacted on teachers' efforts to maintain their teaching responsibilities. Compared to Portuguese teachers, Chilean teachers expressed greater concern about their home situations (health of family members, own and children's emotional well-being). This difference possibly reflected the more strenuous working conditions of Chilean teachers compared to those in Portugal. With bigger class sizes and greater inclusion of special needs students (OECD, 2020a), Chilean teachers had to dedicate more time and effort to remote teaching thus lessening attention to their own and family needs. Despite this, both Portuguese and Chilean teachers' responses to the survey expressed a higher level of concern for their students' well-being than for their own.

5.3 School and collegial support

A positive finding, as in Kraft et al. (2020) and Delcker and Ifenthaler (2021) studies, was the extent to which teachers in both countries, especially in Portugal, were moderate to largely satisfied with how their school community -authorities and colleagues- supported them, while also appreciating their concern for students' well-being. This relatively positive perception to an extent explains the resilience or 'functional coping' strategies (Klapproth et al., 2020). with which teachers in both countries managed and continued to teach in the changed circumstances, and highlights the key role played by collaboration with colleagues (Delcker & Ifenthaler, 2021).

5.4 Teacher professionalism and learning

Teachers had a good deal to say about their professional learning covering all aspects of their work as teachers. Many of their responses to the open questions reflected what we have described as pedagogical learning, both in the form of a deeper understanding of the complexities of teaching as well in adapting to the needs of diverse students and situations:

> Less is more: I have lowered the focus on academic content and concentrated on the key skills of my subject. One moves at a slower pace, but I have observed that most students learn in a more fluid and less stressful way. I also notice that students who learn at a slower pace continue to be motivated. They ask me about my tests' corrections and want to know what it is that they are doing wrong. That is, they want more of my feedback (Basic Education teacher with 12 years' experience)

Probably, one of the important results of teacher experiences with technology has been to gain a different horizon for teaching. As illustrated earlier in this article, teachers visualised schools in the future allowing for hybrid modes of teaching and believed that at certain school levels teaching might be flipped-over with students investigating and teachers moderating and supplementing discussions of results.

5.5 Teachers views on student participation by socio-economic background

We complete these conclusions reflecting on one of the important findings of the study. Evidence from most international studies have brought out the fact that students in poor countries and from disadvantaged backgrounds will probably make up a lost generation in terms of educational gains unless action is taken (UNESCO, 2020; United Nations, 2020). However, not only students in the poor countries have been gravely affected by the pandemic, but also those belonging to disadvantaged groups in richer countries (Greenhow et al., 2020). Citing a study by the McKinsey company, The Economist (2021) estimates that in eight developed countries the effectiveness of remote learning has not exceeded 6.6 in a 10-point scale. Our study provided evidence of the impact of student socio-economic differences in how Portuguese and Chilean teachers rated their students' engagement in lessons. Those belonging to low/very low socio-economic groups in both countries responded less well to teaching in whatever format it took place, compared to those in medium and higher income groups, although better so in Portugal than in Chile. These findings lay bare the need for national action to lessen such differences through investment (both countries are higher income) and for teacher professional development geared to teaching disadvantaged students with 21st century tools (Rivas, 2019; Schleicher, 2020). The consequences of much lower levels of learning will be felt for a long time, but it is also true that teachers have amassed much new learning about teaching in difficult circumstances that they should be able to put to use as on-site schooling resumes.

Notes

1. The project was approved by the Ethics Committee for Research in Social and Human Sciences at the University of Minho (Ref. CEICSH 055/2020)
2. Kindly made available by Professor Ron Avi Astor, Luskin School of Public Affairs of the University of California, Los Angeles.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This work was supported by the PIA-ANID Basal Funds for Centers of Excellence Project FB003 [Project FB003]; Portuguese National, Foundation for Science and Technology [Project UIDB/00317/2020 and UIDP700317/2020].

Notes on contributors

Beatrice Avalos is professor of Education at the University of Chile's Institute of Education. She has a long trajectory of work and publications on the teaching profession, including teacher preparation and policies, with a specific focus on Chile and Latin America, as well other settings such as Papua New Guinea. She was awarded the Chilean National Prize in Education Sciences in 2013.

Maria Assunção Flores is director of the Research Centre on Child Studies at the University of Minho, Portugal. She has published extensively both nationally and internationally in areas related to teacher professionalism and identity, teacher education and professional development, teacher appraisal, curriculum, assessment, leadership and higher education. She served as Chair of the International Study Association on Teachers and Teaching (ISATT) between 2013 and 2019.

Sebastian Araneda is assistant researcher at the University of Chile's Center for Advanced Studies in Education, contributing to mixed methods studies and advanced multivariate statistical analyses. He has been part of research teams studying teacher preparation, teacher collaboration and student engagement in science lessons as well as policy analyses.

ORCID

Beatrice Ávalos http://orcid.org/0000-0001-6269-291X
Sebastián Araneda http://orcid.org/0000-0002-2845-0340

References

Alves, R., Lopes, T., & Precioso, J. (2021). El bienestar de los docentes en tiempos de pandemia Covid-19: Factores que explican el bienestar profesional. *International Journal of Educational Research and Innovation (IJERI)*, *15*, 203–217 doi:10.46661/ijeri.5120.

Bergdahl, N., & Nouri, J. (2020). Covid-19 and crisis-prompted distance education in Sweden. *Technology, Knowledge and Learning* 26 443–459 . Published online. https://doi.org/10.1007/s10758-020-09470-6

Day, C., Sammons, P., Stobart, G., Kington, A., & Gu, Q. (2007). *Teachers matter: Connecting lives, work and effectiveness*. Open University.

Delcker, J., & Ifenthaler, D. (2021). Teachers' perspective on school development at German vocational schools during the Covid-19 pandemic. *Technology, Pedagogy and Education*, *30* (1), 125–139. https://doi.org/10.1080/1475939X.2020.1857826

Dias, M. J. A., Almodóvar, M., Atiles, J., Vargas, A. C., & Zúñiga, I. M. (2020). Rising to the challenge: Innovative early childhood teachers adapt to the COVID-19 era. *Childhood Education*, *96*(6), 38–45. https://doi.org/10.1080/00094056.2020.1846385

Educación. (2020). (Abril 2020). *Estamos Conectados. Testimonios y Experiencias de las Comunidades Educativas Ante la Crisis Sanitaria*.

Educar, E. (2020). *Desigualdad Socioeconómica en la Educación Chilena*.

Engels, N., Hotton, G., Devos, G., Bouckenooghe, D., & Aelterman, A. (2008). Principals in schools with a positive school culture. *Educational Studies*, *34*(3157–172. https://doi.org/10.1080/03055690701811263

Evetts, J. (2009). The management of professionalism: A contemporary paradox. In S. Gewirtz, P. Mahoney, I. Hextall, and A. Cribb (Eds.), *Changing teacher professionalism: International trends, challenges and ways forward*. London 19–30 .

Flores, M. A., Machado, E. A., Alves, P., & Vieira, D. A. (2021). Ensinar em tempos de COVID-19: Um estudo com professores dos ensinos básico e secundário em Portugal. *Revista Portuguesa de Educação*, *34*(1), 5–27 doi:10.21814/rpe.21108.

Greenhow, C., Lewin, C., & Willet, B. S. (2021). The educational response to Covid-19 across two countries: A critical examination of initial digital pedagogy adoption. *Technology, Pedagogy and Education*, *30*(1), 7–25. https://doi.org/10.1080/1475939X.2020.1866654

Hassan, M. M., Mirza, T., & Hussain, M. W. (2020). A critical review by teachers on the online teaching-learning during COVID-19. *International Journal of Education and Management*, *10* (5) , 17–27. https://doi.org/10.58125/ijerme.2020.05.02

IEA TIMSS & PIRLS International Study Center & Boston College. (2019). *TIMSS 2019 international results in mathematics and science*. https://timss2019.org/reports

IES National Center for Education Statistics. (2021). *Education expenditures per country* https://nces.ed.gov/programs/coe/indicator_cmd.asp

IIE, CPDP, SUMMA, Costadigital, PUC, OPED. (2020, May). *Docencia durante la crisis sanitaria: La mirada de los docentes*. http://miradadocentes.cl/Informe-de-Resultados_Docencia_Crisis_Sanitaria.pdf

Klapproth, F., Federkeil, L., Heinshke, F., & Jungmann, T. (2020). Teachers' experiences of stress and their coping strategies during COVID-19 induced distance teaching. *Journal of Pedagogical Research*, *4*(4), 444–452. http://dx.doi.org/10.33902/JPR.2020062805

Kraft, M., Simon, N. S., & Lyon, M. A. (2020). Sustaining a sense of success: The importance of teacher working conditions during the COVID-19 pandemic. *(EdWorkingPaper: 20-279)*. Annenberg Institute at Brown University. Retrieved https://doi.org/10.26300/35nj-v890

Ministry of Education Chile. (2020). *Educación en Pandemia: Principales Medidas 2020*. https://www.mineduc.cl/educacion-en-pandemia/

Nieto, S. (2005). *Why we teach*. Columbia Teachers College . . ..

OECD. (2019a). *PISA 2018 results (Volume 1): What students know and can do, Pisa, OECD*.

OECD. (2019b). *TALIS 2018 results (Volume I): Teachers and school leaders as lifelong learners*.

OECD. (2020). *TALIS 2018 results (Volume II): Teachers and school leaders as valued professionals*.

OECD. (2021), *Income inequality (indicator)*. Retrieved July 16, 2021. https://doi.org/10.1787/459aa7f1-en

Opfer, V. D., Pedder, D. G., & Lavicza, Z. (2011). The role of teachers' orientation to learning in professional development and change. A national study of teachers in England. *Teaching and Teacher Education*, *27*(2), 443–453. https://doi.org/10.1016/j.tate.2010.09.014

Quinn, D. (2016). Longitudinal and contextual associations between teacher-student relationships and student engagement: A systematic review. *Review of Educational Research* 87 (2) 345–387 . September 1. https://doi.org/10.3102/0034654316669434

Rivas, A. (2019). *¿Quién Controla el Futuro de la Educación*. Siglo Veintiuno Eds.

Schleicher, A. (2020). *The impact of COVID-19 on education. Insights from education at a glance 2020*. OECD.

Sellars, M. (2012). Teachers and change: The role of reflective practice. *Procedia – Social and Behavioral Sciences*, *55* (5) , 461–469. https://doi.org/10.1016/j.sbspro.2012.09.525

Sokal, L., Trudel, L. E., & Babb, J. (2020). Canadian teachers' attitudes toward change, efficacy and burnout during the COVID-19 pandemic. *International Journal of Educational Research Open*, *1*(1), 100016. https://doi.org/10.1016/j.ijedro.2020.100016

Tenti Fanfani, E. (Ed). (2006). *El Oficio Docente. Vocación, Trabajo y Profesion en el Siglo XXI*. Siglo Veintiuno Eds.

The Economist. (2021, June 26). *Catching up is hard to do*. https://www.economist.com/briefing/2021/06/24/how-covid-19-is-inspiring-education-reform

The World Bank. (2021). *World development indicators. The world by income and region*. https://datatopics.worldbank.org/world-development-indicators/the-world-by-income-and-region.html

Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, *17*(7), 783–805. https://doi.org/10.1016/S0742-051X(01)00036-1

UNESCO. (2020, October). *What have we learnt? Overview of findings from a survey of ministries of education on national responses to COVID-19*.

United Nations. (2020, August). *Policy brief: Education during COVID-19 and beyond*. https://unsdg.un.org/resources/policy-brief-education-during-covid-19-and-beyond

Van Maele, M., & Van Houtte, M. (2012). The role of teacher and faculty trust in forming teachers' job satisfaction: Do years of experience make a difference?. *Teaching and Teacher Education*, *28* (6), 879–889. https://doi.org/10.1016/j.tate.2012.04.001