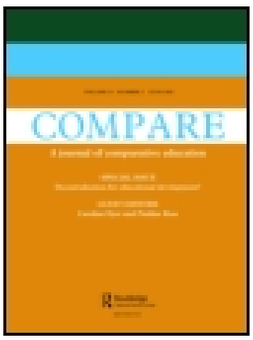

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School-based teacher collaboration in Chile and Portugal

Beatrice Ávalos-Bevan[a] and Maria Assunção Flores[b]

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

ABSTRACT

This study extends research on school-based teacher collaboration from single country to comparative settings in Chile and Portugal. Based on interviews with school teachers and principals, the study focused on collaboration engagement and factors conditioning its modalities and depth. Findings indicate that more than country differences and between school differences, collaboration factors and experiences vary according to teacher perception of its value, collective efficacy, school culture/practices and leadership, and in Chile by rural/urban location. Collaboration forms rarely involve more than mutual learning based on sharing of experience. However, involvement in school-based external projects engage teachers in deeper forms of collaboration. Available spaces, time, work-load, systemic policies, testing/accountability are limiting factors.

KEYWORDS

Teachers' collaboration meanings and practices; teacher collective efficacy beliefs and school culture as collaboration factors; policy conditions limiting collaboration; rurality allowing more complex collaboration

Introduction

Teacher interaction in educational institutions, ranging from informal encounters to structured meetings for specific purposes, has a history of research interest. Such interest rests on the nature of educational institutions as bodies working collectively for individual and social learning and on the links between teacher collaboration and professional development. Teacher collaboration has been studied from different angles and approaches, both in its focus and forms (Durksen, Klassen, and Daniels 2017; Doppenberg, Backs, and den Brok 2012; Schechter 2012; Horn and Little 2010), and recent reviews of research cover its history, modalities and links with motivation (Vangrieken et al. 2015; Hargreaves 2019; Kolleck 2019). However, with few exceptions such as Winslow (2012), the TALIS' studies (OECD 2014, 2020) teacher collaboration as enacted in different national systems of education has not been studied. The article thus contributes to knowledge about school-based teacher collaboration in different country contexts by presenting and discussing results from research in Chile and Portugal.

The educational systems of Chile and Portugal were chosen in that they exemplify countries and education systems which are both similar and different in a number of ways. Both countries share similar cultural origins in Spain and Portugal and speak languages basically understood by both their populations. Being countries with equal

CONTACT Beatrice Ávalos-Bevan bavalos254@gmail.com Centre for Advanced Research in Education, Institute of Education, University of Chile, Santiago, Chile

literacy rates and schooling indicators and as members of the Organisation for Economic Cooperation and Development (OECD), they provide comparable educational indicators. In terms of student learning, Portuguese students achieved above the OECD mean in the PISA 2018 (OECD 2019) study in Reading, Mathematics and Science, while Chilean students achieved below the mean but higher than most other Latin American countries. Governments in both countries fund the schooling of over 90% of students, but Portugal does so in a public-school system covering around 90% of students, while Chile uses a voucher system that funds students in both public (40%) and private schools. Teacher education in both countries occurs in university 4 to 5-year degree programmes (Licentiate/Master's).

Teacher working conditions which potentially affect possibilities for interaction and mutual learning in schools, differ somewhat in both countries. In Chile the ratio of teaching/non-teaching time is 70/30 for teachers across the system, while in Portugal it ranges from 71/29 for pre-school and primary levels to 63/37 for other levels. In Chile, student maximum numbers per class are 40 to 45 and in Portugal they are 28 to 30. Curiously, though, 92% of Portuguese teachers would want their class sizes to be smaller compared to 72% of Chilean teachers (OECD 2020). As reported by teachers in the TALIS 2018 study (OECD 2020), Chilean classrooms include 53% of students with special needs in relation to 32% in the Portuguese ones.

Considering the above stated similarities and differences between the Chilean and Portuguese education systems, this article examines how school-based collaboration is understood, practiced and valued by teachers in both countries, and what factors related to their school contexts are considered to affect collaboration practices. In what follows, we explain the concept of teacher collaboration as used in the study, and describe its methods and results, discussing these from a comparative perspective.

Teacher collaboration and its forms

Teacher collaboration usually covers formal and informal activities in which teachers engage in pairs or groups for purposes of their own and of their students' learning, and is an indicator of professionalism (Seidel Horn and Little 2010; Lohman 2006, 2005). Teacher collaboration engagement ranges from less structured and demanding to more complex forms, or from 'teacher exchanges and coordination for teaching' to

'professional collaboration' as classified in the TALIS 2018 survey (OECD 2020). Less structured collaborative interactions occur in conversations and advice-seeking (Kvam 2018) as well as through shared decision-making in meeting situations (Little 1990). More structured collaboration takes place in team teaching situations, collaborative planning, lesson study, peer coaching, networking, as well as in communities of practice, learning communities and collaborative action-research (Lefstein et al. 2020; Voelkel and Chrispeels 2017; Vangrieken et al. 2015; Santizo Rodall 2016; Hargreaves 1998).

Teacher school-based collaboration as examined and described by Little (1990) can be viewed in terms of its interdependence and enactment in school. The simplest level, expressed as 'storytelling and scanning', usually covers momentary exchanges in staff rooms or hallways. An intermediate level involves 'aid and assistance' and some openness to critical mutual observation of teaching practices. 'Sharing' occurs when teachers regularly exchange, materials, methods, ideas, and opinions, and make their daily

teaching routines accessible to other 'teachers'. Finally, collegial interaction with the highest level of interdependence involves 'joint or team work' such as 'instructional problem-solving and planning' or participation in 'communities of practice' (Lave and Wenger 1991). This last level of collaboration is assumed to hold a rich learning potential in that it allows teachers to feel collective responsibility for their work and their school community as a whole.

Conditions for teacher collaboration

The extent to which teachers engage in genuine school-based collaborative activities as opposed to those 'contrived' or managed by the school's administration or others, is associated with beliefs in personal capacity, in the value or importance of collaboration for professional purposes and in colleagues' professional know-how and effectiveness. Personal and colleagues capacity beliefs have been conceptualised as beliefs in 'self-efficacy' and in colleagues 'collective efficacy' (Hoogsteen 2020; Goddard, Hoy, and Woolfolk-Hoy 2000; OECD 2014; Goddard and Skirla as cited in Voelkel and Chrispeels 2017). Teachers may engage in collaborative activities because they believe they have something to offer (self-efficacy) and/or because they believe in their colleagues' professional capacity to impact on students' education and learning (collective efficacy). While research agrees on the association between teacher efficacy beliefs and collaborative activities, it differs on whether or not both are interactive. Durksen, Klassen, and Daniels (2017) survey of 254 teachers reported a significant association between teacher self/collective efficacy beliefs and engagement in collaborative professional learning activities and vice versa. But, Voelkel and Chrispeels (2017) review of studies on professional learning community collaboration and collective efficacy beliefs concluded that collaboration mainly predicts collective efficacy and not the reverse. More specifically, Hoogsteen's (2020) review of studies on collective teacher efficacy reported that teacher collaboration directed to instructional improvement (mastery) shapes collective teacher efficacy, more than other targets of collaboration such as vicarious experiences, social persuasion and affective states (Donohoo as cited in Hoogsteen 2020).

Besides the above more person-related sources and conditions for collaboration, teacher collaboration is affected by type of school administration, school leadership role and school culture (OECD 2020; Castro, Amante, and Morgado 2017; Vangrieken et al. 2015; Grosemans et al. 2015). On differences by type of school administration, TALIS 2018 found that a higher proportion of teachers in Chilean public schools as opposed to private ones, experienced in their school 'a collaborative school culture characterised by mutual support' (OECD 2020). The study also found that in participating countries teachers who agree that their schools have a collaborative school culture, also tend to engage in collaboration with colleagues (OECD 2020). Collaboration, however, is not always authentic. Research on collaboration forms has uncovered cases of artificially or 'contrived' collaboration by school authorities or others (Main as cited in Vangrieken et al. 2015), which sometimes is intended to offset 'balkanization' or segregation of teachers in particular groups to which they attach loyalties and identities (Hargreaves 1993).

Systemic conditions derived from employment conditions such as scarcity of non-teaching time, class size and pressures from testing and standardisation also impact

negatively on collaboration opportunities (Lohman 2006, 2005; Vangrieken et al. 2015; Forte and Flores 2014). But adequate school and classroom spatial conditions, including those described as 'new generation learning environments' (Bradbeer 2016) serve to 'co-locate' teachers in collaborative work situations.

Based on the conceptual elements presented, particularly the links between teacher collaboration, self and collective efficacy beliefs, and differences in school cultures and conditions for collaboration, this article focuses on Portuguese and Chilean teachers' views and accounts of school-based teacher collaboration experiences. To this end the article addresses the following questions:

(1) How do Chilean and Portuguese teachers describe their understanding of school-based collaboration and which are the main collaboration forms in which they declare to engage?
(2) How are self and collective efficacy beliefs expressed in views about collaboration and collaborative practices?
(3) How do Chilean and Portuguese teachers assess factors that enable or constrain school-based collaboration?

Methods

The study involved a set of school case studies and interviews with selected teachers. Prior survey studies conducted in Chile and Portugal on school-based teacher collaboration provided information for selection and focus of the case studies (Ávalos-Bevan and Bascopé 2017; Forte and Flores 2014; Flores 2019).

In each of the two countries the schools were chosen so as to represent their public and private systems, as well as urban/rural location. In Chile, schools are classified in terms of management and funding source as public, privately-managed but publicly funded, and as independent private schools. In Portugal there are only public and private schools. Acknowledging these differences, the two-country design included eight basic/primary and secondary schools per country. Table 1 below shows the distribution of schools according to level, size and management type.

Table 1. Case study schools in Chile and Portugal.

Chile	Portugal
Location[4]:	*Location*:
Metropolitan, Ñuble and La Araucanía Regions	Northern and Central Mainland
School level:	*School level*:
Complete: 4	Complete: 5
Basic: 2	Basic: 1
Secondary: 2	Secondary: 2
Type of School:	*Type of school*:
Public: 4	Public: 7
Private Subsidised: 3	Private: 1
Independent Private: 1	
Size (Nº of students): Smallest 107; Largest 2,016	*Size* (Nº of students): Smallest 600; Largest: 2,471
Size (Nº of teachers including authorities): Smallest 10; largest 120	*Size* (Nº of teachers (including authorities): Smallest 102; largest 233

Source: Authors

Besides urban schools, the Chilean study included two small rural primary schools located in a region with large indigenous population, as well as a rural secondary school. The Portuguese cases were urban or semi-urban but included school clusters[1] and one rural school. In the paper we refer to the participating schools as 'basic' and 'secondary'.

Interviews were carried out in each one of the selected schools on the basis of signed informed consent. Interviews included two authorities for each of the Chilean and Portuguese schools (principal and pedagogic head or head of department). Two to three teachers were interviewed in the Chilean schools, and six to eight in the Portuguese ones.[2] Where granted the opportunity, researchers attended at least one routine established school meeting in each school.

Instruments and procedures

Semi-structured interview protocols were used for school authorities and teachers. Authorities were asked about themselves, their experiences, main meetings, as well as forms of teacher support and mentoring including lesson observations, interviews and conversations. Teachers, in turn, were consulted about their experience outside and in school, teaching responsibilities, teaching load and number of students in their classes. More specifically, they were asked whom they might consult in relation to a teaching issue, share materials or an experience, about their views on professional learning and the role of colleagues regarding this learning, and whether they preferred to learn on their own, with colleagues or through university courses. They were also asked about formal and informal meetings in their school contexts, including experience with communities of practice, focusing on positive or negative factors affecting collaboration in all of these instances.

Interview recordings were transcribed and analysed thematically. First, a vertical analysis was conducted through separate analysis of respondents' accounts, followed by a cross-case analysis (Miles and Huberman 1994). The transcripts were coded using 'in vivo' noting of key relevant statements, 'process coding' of expressions considered as indicative of actions and 'value coding' focused on value and beliefs (Saldaña 2016). A second level of analysis, in line with the research questions, produced relevant conceptual categories in which the 'in vivo codes' and 'process codes' were fitted. This phase included 'constant comparative analysis' (Glaser and Strauss 1967) to note similarities and differences in the resulting thematic descriptions.

Main Findings

We refer first to collaboration opportunities as formally instituted in both the Chilean and Portuguese schools according to teacher/school authority descriptions and in situ observations. We then centre on teachers' views about the value of school-based collaboration, beliefs in their school colleagues' efficacy and school culture in terms of contributing to educational results. Finally, we present the main forms of collaboration in which teachers declare to engage (from less to more demanding in terms of enactment), as well as conditions that they perceive support or hinder collaboration.

School-based formal collaboration opportunities

All schools in Chile, with some differences between public and private, have regular teacher meetings that differ in frequency and focus. The large public schools hold one or two all-teacher meetings a year to review school matters and issues. They also meet on a weekly basis with one meeting a month centred on pedagogical issues, while the others deal with administrative matters and student problems and may take the form of 'disciplinary councils', as described by one school authority. Rural schools in Chile have a somewhat different pattern. The small rural schools in this study hold weekly teacher meetings and once or twice a month these meetings include the discussion of a project, analysis of standardised test results, or simply interaction around pedagogical matters. Besides these all-teacher weekly meetings, secondary schools also have department meetings organised around one or more school subjects. Schools with pre-school, primary and secondary levels have separate teacher meetings for each level. Finally, the privately managed school studied differed somewhat in terms of frequency and focus of its meetings, but in general these are similar to those in public schools.

In Portugal teacher interaction occurs within schools and school clusters. School formal meetings include a general council, a pedagogical council and subject department meetings. The pedagogical council is a key established structure, composed of departmental heads, the school principal, and members of the pedagogical and supervision structures in the school. It meets once a month and deals with educational matters in the school. Departments are composed of single-subject teachers or teachers in related subjects such as Languages (English, Portuguese, German) who meet every month. In big school clusters, departments meet twice or three times a term. As in Chile, there are other meetings such as among teachers charged with the same class/group of students or the same subject.

Teacher views on collaboration: its forms, value and conditions

The Chilean and Portuguese teachers interviewed use examples of purposes and modes of interaction to illustrate both their understanding of collaboration and the forms of collaboration in which they engage. They describe collaboration in terms of specific aims such as interchange of materials, broader purposes such as working together to assist children in inclusive classrooms or of general aims such as contributing to professional growth. However, in expressing their views, teachers do not endorse collaboration in general as a good practice, but highlight its potential worth for specific immediate or longer-term purposes, and in this sense express beliefs about the efficacy of some collaboration forms versus others. More specifically both groups of teachers tend to associate collaboration with their own professional goals. Thus, one of the Chilean teachers distinguished substantive curricular learning as a purpose better achieved individually from practical improvement as *'clearly achieved collaboratively'*. On the other hand, agreeing with the notion that knowledge improvement is a personal matter, a Portuguese teacher was less inclined to see any value in collaboration for professional purposes:

> I think that much of the work is better done individually. Individual work is crucial and you cannot change that. Yes, sharing experiences with colleagues is important, but, I think,

> learning and acquiring knowledge needs autonomous work, done by oneself (*Marta, Portuguese teacher in a secondary school*)

Throughout interviews, teachers qualify their theoretical beliefs about collaboration through references to conditions that impact on its quality and feasibility. Thus, while teachers in both countries acknowledge that collaboration is a part of school life, they condition their judgement to four factors they believe are important for it to occur (see Table 2 below). The first of these refers to subjective factors such as feelings of 'affinity' or being 'in tune' with the other person and being open 'to a well-intentioned critique'. The second factor refers to 'triggering' conditions such as another teacher's successful practice that, in the light of a particular need, might make it worthwhile to collaborate. Thirdly, collaboration requires a school culture marked by collective responsibility. And finally, collaboration is subject to time and appropriate spatial conditions.

Collective efficacy beliefs

Under the assumption that positive collective efficacy beliefs and their links to the school's environment predict engagment in teacher collaborative activities (Durksen, Klassen, and Daniels 2017), in the Chilean survey that preceded the case studies we inquired about such beliefs. We found that teachers tended to hold a positive view of their colleagues' effectiveness in terms of contributing to learning results of students, of being able to get through to the more difficult students and of using a variety of teaching methods (Ávalos-Bevan and Bascopé 2017). Interviews, however, were more nuanced in the examples provided of how collective efficacy and the school environment is experienced.

Table 2. Conditions for collaboration: Views of Chilean and Portuguese teachers.

Chilean Teachers	Portuguese Teachers
Affinity with colleague (s)	
Yes, with those teachers with whom one feels affinity … (*Andrea, basic school teacher*)	I prefer working with colleagues who have something to teach me. But, simply by talking to colleagues I usually discover what a teacher should not do … (*Rita, big school cluster*)
Efficacy: A good teaching practice to learn from	
Well, I might think that whole-class teaching is better; but then another colleague tells me that she gets good results using group work: 'My kids actually did learn and I saw it in their test results'. So I try out this different approach (*Rosa, basic level teacher*)	We have a sort of document in which each teacher writes down classroom activities, strategies, and topics covered. Everybody has access to the document and so from reading it we can identify good practices" (*Mónica, private catholic school*)
A stimulating school culture	
I think it is diverse [*the school culture*]. Some teachers are more open to show how they teach, their work, and others are more reserved (*Carla, secondary teacher, secondary school)*	There is a good relationship among staff. New teachers are welcome when they come here. There is a good climate in this school … there is a group of teachers who feel identified with the school. You can count on them for everything (*Samuel, basic school*)
Timing and space	
We are lucky to have a spacious and exclusive room for our Department (*Pamela, secondary teacher*) Fortunately, sometimes we have a free period (*with the other third grade teacher)* and we use it to talk and obviously it's all about school (*Rosa, primary teacher*)	There are times when it is more convenient to work individually at home. At other times it is better to work in a team, and share (*Sandra, School cluster*).

In both Chile and Portugal teachers refer to their colleagues along a continuum of types: the next-door room or parallel class teacher, teachers in established structures such as subject departments, teachers who share work in internal or external school projects and specifically assigned teacher collaborators such as special education professionals.

In judging their colleagues' efficacy or impact on student results and school culture, teachers do so from their own position or standing. This positioning may relate to the size of the school and to levels of proximity of one group to the other, as well as to existing structures and practices of collaboration in the workplace. But it is also associated with the rural/urban condition of schools.

On the whole, Chilean teachers in rural schools expressed positive beliefs about their colleagues' capacities and contribution to their learning:

> If I have a doubt about … say about a maths teaching strategy … I go to teacher Zaida. Or, present it at the Maths Group's meeting which includes Daniela, Zaida (the coordinator), Evelyn (the Special Needs teacher), our headteacher and myself (*Katya, Chilean teacher in rural primary school*).

On the other hand, in larger urban Chilean and Portuguese schools, assessment of teacher collective efficacy rarely was about the entire teacher collective. Rather, judgement about colleagues' efficacy was linked to school level (primary, secondary), curriculum specialisation, or school emphasis (inclusion or selection for higher education). Having said this, there were teachers in both country contexts who extended their collective efficacy beliefs to large groups or the entire teaching body:

> I think that in fact here there is a sense of sharing and collective responsibility associated with work in this school. My guess is that teachers believe that student outcomes are important and put students at the centre of their work. (*Susana, Portuguese teacher in a basic suburban school*).

> Ours is a culture that has developed over time … a culture that works towards a common purpose … that students learn what they need to learn (*Rodolfo, Chilean teacher in large secondary rural school*).

Although individual teachers may frame what it is they value in colleagues in generic terms they mainly operate through distinctions marked by personal interests and needs:

> As far as emotional or humane purposes, what I look for are trustworthy colleagues … if it is subject learning I go to the subject specialist, and if I still have doubts I read, or investigate (*Felipe, Chilean philosophy teacher in private secondary school*).

Usually I share ideas with colleagues who I think are in my same wave line. I don't share ideas with other colleagues who might say 'it's a waste of time', that I'm dreaming … some actually had the courage to say as much (*Mafalda, Portuguese teacher in a large cluster of schools).*

Collaboration forms as experienced by Chilean and Portuguese teachers

Teachers associate their spontaneous references to *forms of collaboration* with their subject specialities, everyday activities, specific responsibilities, particular difficulties, school meeting purposes and times, school projects as well as with unexpected events

that alter their daily school routines. Below, we look at some of these forms and at how they are evaluated by teachers.

The simplest level of collaboration

Like in other systems it occurs in locations such as hallways where two or three teachers might talk about a student or curriculum-related issue, exchange an experience or seek advice on a matter considered to be an asset of whoever is being consulted. But such forms of collaboration have limitations:

> When we talk during recreation time, all we do is look for a quick solution . . . it's something specific as, for example, if I notice that a kid in my class is having difficulties in understanding. " (*Katya, Chilean primary rural school teacher*).

I pick up an idea and might even agree with it, but to think that from here I might get another important idea, no . . . (Sara, *Portuguese teacher in a secondary school*).

This form of experience sharing does not necessarily occur only in face-to-face interaction but also through on-line communication and use of the WhatsApp application.

Teachers in parallel classes and beyond

Chilean primary or basic level teachers frequently refer to work with the teacher charged with the same grade or curricular subject, whom they refer to as the 'parallel' colleague:

> Where one learns the most . . . is sitting around a table and working with one's pair. 'Hey, let's prepare this assessment together. Let's do this guide. Let's work on this problem How did you pose it? How did you work it out with your children?' That's when we see that we have the same problems . . . (*Zaida, Chilean primary rural teacher*).

Conversations and spontaneous exchanges among teachers with similar responsibilities, if successful, can lead to more structured forms of interaction. As narrated by one of the teachers in a large school in the city of Santiago, informal conversations among pre- and early primary level teachers expanded from exchanges of materials and practical experiences, to the setting-up of a 'teacher group' with regular school meetings as well as out-of -school social encounters. Portuguese teachers referred to similar collaboration experiences that they broadly described as team work:

> Here we work as a team. The fact that there is an excellent climate in this school is key in explaining its national level student outcomes. . . . Our teacher team work helps us to improve. It really makes a difference. This is not a cliché. (. . .) we also lunch together and meet after school hours" (*Gabriela, Portuguese teacher in a private catholic school*)

Collaboration embedded in the school's organisational structure at basic and secondary levels

Chilean and Portuguese teachers referred to school formal meetings as potentially offering an opportunity for pedagogical collaboration. According to one of the Portuguese teachers, these meetings allow '*a group of people to work hard, responsibly and seriously around set matters, trying to reach positive outcomes*.' However, this kind of purpose is not always accomplished due to time limitations and other constraints. Chilean teachers expressed concern that the pedagogical focus of meetings could easily

be left aside in favour of administrative matters susceptible of being handled by other means:

> One could use technology, e-mail, an administrative bulletin providing information at a 'click. We could then discuss matters such as "inclusiveness" or how to work with the very poor student population in our school (*Xavier, Chilean special needs secondary teacher*)

Subject departmental meetings in secondary schools, both in Chile and Portugal, provide a key structure conducive to collaboration, including interdisciplinary exchanges:

> . . . in the Spanish Language department, we also work with teachers of other languages, arts, history, and occasionally sciences, because they need us and we need them (*Gonzalo, Chilean secondary rural school teacher*).

Learning from each other through mutual classroom observation and feedback

Responses in the TALIS 2018 study (OECD 2020) indicated that hardly any Chilean and Portuguese teachers participate in mutual observation and feedback (6.3% and 6.7% respectively) and that less than a third of respondents engage in team teaching (28.5% and 22.6% respectively. This is consistent with neither the Chilean or Portuguese teachers interviewed in this study pointing to mutual lesson observation or team teaching as a valued form of collaboration. Despite this, in two Portuguese schools there were tentative experiences of such forms of collaboration:

> Teachers don't only work together to plan, discuss materials, but they also sort of assess their colleague's teaching: "Look, I enjoyed this in your class, but I don't like that, etc . . . ". It's more than assessment, it's also about collaboration, although you always evaluate, you do it in a different way (*Carolina, Portuguese teacher in a secondary school*).

From unplanned collaboration to formalisation in the school's organisation

This category of collaboration only applied to the case of a private secondary school in Chile whose student body participated in a month-long strike against national education policies. Teachers reported that during their freed time they gathered in what they labelled as 'educational innovation workshops'. The groups discussed curricular topics such as teaching methods and science/arts integration. Once the school was back in operation, teachers proposed that, within their non-teaching protected time, there be similar collaborative workshops involving participation of the whole school. However, scaling up the prior workshop experience to 120 participant teachers did not work well:

> Well, my feeling and that of other teachers was that we ended up working around small topics. The meetings no longer centred on macro issues such as preparing a project for the next three to four years, or a pilot programme -that is, a real methodological change and not just discussions on whether teacher so-and-so had seen the video or power point. . . . It was simply impossible to concentrate on key topics because of the difficulty to agree among so many . . . " (*Mary, private secondary school, Chile*).

Collaboration beyond the school walls

A number of interviewed teachers reported on regular external professional exchanges. Portuguese teachers referred to networking at cluster level around external projects

which involved their schools, and so did some of the Chilean teachers. Facebook, WhatsApp and email were cited as important sources for teachers in different schools networking across curricular specialisations and pedagogic practices:

> I belong to three Mathematics groups with other colleagues … After we finished training [in an external course] we exchanged e-mails and basic coordinates, and now we constantly communicate … it's a collaborative network that involves exchange of materials (*Zaida, Chilean primary teacher in rural school*).

It centred on new technologies [*referring to a network*], and involved collaborative work … there were teachers I didn't know at all and with whom we now work at a distance … (*Ana, Portuguese teacher in a cluster of schools*).

Contrived or managed collaboration. Not all forms of collaboration reported by school authorities and experienced by teachers were seen as really fostering collaboration. In one Chilean school's teacher room, there were fixed seating arrangements based on experience and specialisation. These arrangements, originally designed to break teachers' tendency to associate only with specific colleagues (balkanisation), had remained static over time and were not particularly valued as sources of professional exchange and learning:

> You may have noticed … we have three tables around which each teacher has a specific place, a chair … Everybody here knows that in table 1 sits a certain type of person; in table 2 sit the teachers with longer time at the school and in table 3 the youngest. … We are segregated in this way because the teachers' room is very small (*María José, Chilean primary teacher*).

Another example of what Hargeaves (1993) describes as 'balkanized interactions', was exemplified as teachers who work together around their own concerns and interests, without exchanging further with other colleagues at the school:

> Some teachers meet and share but don't talk to colleagues who teach other subjects. Such teachers don't work collaboratively, they resist sharing their materials …… it just doesn't happen. (*Lourdes, Portuguese teacher, secondary school*).

Collaboration related to externally-led school projects or ministry of education policies

Implementation of school projects or public policies emanating from ministerial authorities were used as providing opportunities for teachers to exchange experiences and learn from each other. Thus, a Portuguese teacher in a school cluster, spoke of 'an experimental sciences project that consisted of collaborative work around common themes' and of feeling 'happy to be part of it'. At one of the Chilean rural schools almost all teachers exemplified their understanding of collaboration by referring to their involvement in the 'Singapore Project', a mathematics school project including other Chilean schools:

> We meet to analyse results of the Singapore test. We examine why we had such low results on the 'application' items. I work a lot around these issues, these kinds of questions are routine for me (*Katya, Chilean rural school teacher*).

At two very different schools in Chile, interviewees referred to a similar experience during the discussion of a new version of the national teacher professional standards

produced by the ministry of education. This was considered to have provided an unaccustomed opportunity for exchange of ideas about their profession:

> Yes, and each one of us chose to focus on one aspect of the Standards for which we had to make contributions. And these contributions were super productive (Xavier, Chilean secondary urban school). It was a very enrichening discussion with different views from colleagues (*Zaida, Chilean basic rural school*).

The inclusion of special needs' students in normal classes, was used by Chilean teachers to illustrate its potential for collaboration between the class and the special education teacher, but also its drawbacks. The same policy, as exemplified in statements by one of teacher, induced a 'contrived' exchange between the classroom teacher and his or her paired special educator (also observed in another Chilean study by Rodríguez Rojas and Ossa Cornejo 2014), while for another teacher it supported a fully accepted partnership among both types of professionals:

> I meet three times a week with the Special Education teacher. We talk about what we are doing, planning, the teaching strategies we use with transitory or permanent special needs children. And sometimes, not just about students in the Inclusion Programme, but also about the entire class (*Katya, basic rural teacher*).

Supportive and non- supportive conditions for collaboration

References to school conditions for collaboration were elicited in almost all Chilean and Portuguese teacher interviews indicating positive, less positive, or clearly counter-productive factors. These included implied or overt references to systemic conditions and more frequently to the school's particular culture and practices (see also Lohman 2006, 2005; Vangrieken et al. 2015).

In terms of enabling or supporting conditions for collaboration (formal and informal) the greatest differences in Chile occurred between *rural and urban* schools. There was clearly a more positive view of the school's collaborative culture, beliefs about colleagues' efficacy, including school leadership, and collaboration possibilities in all three rural schools as compared to the urban ones, especially those located in the capital city of Santiago. In the large secondary rural school an important enabling condition highlighted by the teachers interviewed, was their principal's respect for non-teaching statutory time. This enabled teachers better to organise collaborative exchanges. In the two small rural schools teachers appreciated having to arrive in the morning 45 minutes before the start of lessons and have coffee together. This time provided them with a rich opportunity for informal exchanges and if needed for more formal discussions on topics such as new policies or regulations.

Scarcity of *available time* is a strong constraint for collaboration brought out by almost all Portuguese and Chilean teachers interviewed, as noted also in other countries (Vangrieken et al. 2015):

> What sometime stops collaboration is lack of available time … excess of paper work demands (*Lucinda, Portuguese teacher in a cluster of schools*).

And it hits us: the time factor. … We often have to weigh whether to meet with another teacher, or prepare our teaching materials … Or, having agreed to meet, we find that our

partner has to cover for an absent teacher … It's as if collaborative work is still not important in the education system (*Adriana, Chilean secondary teacher*).

Spatial conditions were also an issue for some of the teachers interviewed.

> We don't have a teachers' room as such … and so we have to find space in the room where we have breakfast and lunch, and, … sometimes you'll find us lunching and working at the whiteboard on a mathematical problem (*Rodolfo, Chilean teacher in rural secondary school*).

Standardised testing pressures, as one of the factors affecting collaboration (see also Vangrieken et al. 2015), was strongly considered to impact on authentic collaboration by Chilean teachers in public and private subsidised schools. The link between schools not performing adequately on the Chilean national school achievement tests known as SIMCE (Education Results Measurement System) and possible loss of students in a per student voucher system (Ávalos and Bellei 2019) influences a sort of fake teacher collaboration, narrowly associated with raising test scores. This, despite the fact that there are teachers who use SIMCE results as a challenge and an opportunity for effective collaboration:

> The SIMCE issue undermines authentic collaborative work amongst us. This is because to improve results, or because we think we can improve results … we focus on the test … and so collaborative work loses its soul (*Rosa, basic Chilean teacher*).

SIMCE is very much present in the school: actions, work plans, reading comprehension - we share it all … we all have to face it (*Carla, Chilean secondary teacher*).

Proactive school leadership as a collaboration factor emerged in several interviews. For example, a Portuguese principal highlighted the importance of setting conditions for collaboration:

> Fostering teacher collaboration is clearly a concern of the school administration. … We set aside one period per week in which same class teachers are free and able to meet and talk about their students, curriculum and materials and about content and planning. This is the second year that we do this. … It has helped a lot. I see teachers working together in the same room, dealing with challenging students or working on the development of written tests … (*Portuguese principal*).

Chilean rural teachers also valued the importance their school principal gave to team work as it allowed same-class teachers to discuss, exchange and modify plans. On the other hand, there were Portuguese and Chilean teachers in big schools who criticised the management of formal meetings for allowing administrative issues and ministry of education messages to encroach on time set aside for pedagogical discussions:

> During our Wednesday teacher meetings, we deal with administrative topics, information and tasks sent by the Ministry … it struck me that we do exactly what the Ministry requires from us (*Rafael, Chilean, secondary teacher*).

I participate in a pedagogical council, department and class meetings. In my view we talk a lot but don't decide. … The time should be used for more productive stuff … in fact, we use lots of time to deal with paperwork and documents (*Catarina, Portuguese teacher in a cluster of schools*).

Discussion and conclusions

In what follows we discuss school-based teacher collaboration as expressed in teachers interviews in both countries and in line with the study's conceptual basis. We consider how the main collaboration forms intertwine with how teachers value professional collaboration and how this relates to collective efficacy beliefs, and to external conditioning factors that limit or support such interactions. In so doing we consider similarities and differences between Portuguese and Chilean teacher collaboration.

The value of collaboration and its forms

In line with literature that highlights connections between conceptions and forms of practice regarding collaboration (Hargreaves and O'Connor 2017; Vangrieken et al. 2017; Forte and Flores 2014), teachers in both countries *understand and value collaboration*, but with some caveats. Almost all those interviewed recognise that school teaching is a collective activity and that as such it impacts on the broader education of students as well as on school results, even if its effects are not always pristine. In talking about school-based collaboration teachers associate its practice with colleague willingness to open and interact with others in professional terms, recognising that there is something to be gained by collegial interactions. Implicit and occasional explicit distinctions are made between genuine teacher collaboration versus 'contrived' forms used by school leadership to deal with what Hargreaves describes as teacher 'balkanisation' (1993) or prepare responses to 'measurement' and 'competition' demands also observed in Main's study (in Vangrieken et al. 2015). School emphasis on performativity goals (Lofthouse and Thomas 2017) such as increasing standardised test results are considered by teachers to impact negatively on genuine collaborative activities, more so in the case of Chile than Portugal (Ávalos-Bevan and Bascopé 2017).

Teachers do not provide long lists of valued collaboration instances, but rather focus on those for which they have greater appreciation and in which they actually engage or consider effective within their contexts. While the forms referred to in this article fall in line with Little (1990) continuum from 'storytelling and scanning' to 'joint work', teachers in both countries emphasise certain activities in the continuum -such as assistance and sharing- and not others requiring deeper mutual involvement. Formal school meetings intended to further professional development and learning are highly appreciated in Chilean small rural school contexts but in larger contexts in Chile and Portugal, these meetings can be contrived to deal with administrative matters or respond to ministry of education requests. While team work is not frequently mentioned as a practice in both countries, also observed in TALIS 2018 (OECD 2020), it was not devalued in statements during interviews. On the other hand, networking and collaborative work around projects proposed by ministry of education or other external agencies is appreciated by Chilean and Portuguese teachers if it provides opportunity to exchange and learn from in-school or other school experiences.

Intentionally, we questioned teachers about 'communities of practice', which are considered to reduce isolation, provide a ground for collaboration and allow participants to extend to others their teaching and research capacities (Patton and Parker 2017). Except for one or two exceptions, in none of the two country settings was the term even

recognised as such. Learning from collaboratively generated mutual observation and feedback happens occasionally in smaller schools in Chilean or Portuguese schools, as also reported in the TALIS 2018 survey (OECD 2020). On the other hand, in schools where lesson observation did take place and was a voluntary decision not emanating from authorities, it was appreciated as a genuine form of professional improvement.

Beliefs in collective teacher efficacy and school culture as conditions for collaboration

The perception of *collective teacher efficacy* (Voelkel and Chrispeels 2017; Goddard, Hoy, and Woolfolk-Hoy 2000) as a condition for collaboration is generally positive among the teachers and principals in Chile and Portugal, meaning that they identify and appreciate having experienced colleagues in their schools with practical know-how in a subject-field. However, beliefs in collective efficacy were rarely about the entire staff of the school and therefore did not appear as a clear rationale for collaboration. In fact, the concept of 'collective efficacy' was attributed more appropriately to teachers with whom the interviewee had a closer opportunity to interact and learn from, such as the first cycle teachers (kinder and 1st to 3rd grade), teachers working in the same subject-department in secondary schools and those involved in a common school project in Chile or school clusters in Portugal. These kinds of perceptions of collective efficacy did appear as a motive for collaboration, as shown also in Durksen, Klassen, and Daniels (2017) review of research on this association.

Beliefs in the efficacy of colleagues and of their school culture as reasons for collaborating, were associated to size and location of the schools (see Ávalos-Bevan and Bascopé 2017). Thus, teachers in smaller Chilean cities and rural places reported a more positive environment in terms of the school's social capital and opportunity to collaborate, than did those in the metropolitan city of Santiago. These teachers indicated some engagement in lesson observation and mutual feedback, were more appreciative of parents' contribution and had more opportunity to participate in decision-making and collaborate with colleagues. This was also a finding of TALIS 2018 (OECD 2020) in relation to Chilean rural teachers. School authorities in bigger city schools in Chile and Portugal declare variations in the degree to which their schools exhibit a collaborative culture.

Conditioning factors

Conditions that support or deter from collaboration are identified in similar ways in both countries studied. Not surprisingly school leadership is signalled as the key gatekeeper for collaboration opportunities. Views from Chilean and Portuguese teachers coincide in expressing that principals' 'emotional and informational support`, 'encouragement of professional development and professional relationships', 'respect for teacher professionalism` as well as leadership in 'setting out a common focus for the school', all predict teachers' involvement in collaboration. These views coincide with evidence from studies on school culture and its effects (Castro, Amante, and Morgado 2017; Lee, Dedrick, and Smith 1991). Portuguese teachers, identify as an important input for collaboration the presence of leaders who manage the school in an open way, allow collaborative initiatives to flow and find ways to channel them productively. In

turn, Chilean rural school teachers value the time allowed during meetings for sharing of new learning and their leaders' respect for non-teaching time, as well support for external teacher professional development. Safe but challenging spaces and shared commitment are identified, with differences in intensity, as elements for collaboration in both Portuguese and Chilean teacher interviews, as also in other contexts (Patton and Parker 2017).

Systemic conditions were perceived differently in both countries in terms of their impact on collaboration. In Portugal there were harsher references to teachers having to engage in external projects pushed by the ministry of education, endure bureaucratic forms of control over their work, and respond to student and teacher assessment systems considered to divert attention from 'genuine` collaborative activities. In Chile, beyond the frequent negative references to pressures from the standardised testing system, not much was said about other policies, with the exception of those derived from teacher working conditions (teaching/not teaching time ratio and class size). In both Portuguese and Chilean contexts, shortages of time for informal or teacher-led structured collaboration were clearly considered a major systemic impediment, as was also the high teaching load and related obligations of both Portuguese and Chilean teachers.[3]

In synthesis, while Chilean and Portuguese teachers value learning through collaboration as contributing to professional growth (OECD 2014), they also see it as a developing condition that needs support and encouragement (Piercey 2010). As we prepare this article for publication, the impact of the COVID-19 pandemic over schooling and teaching worldwide is becoming forcefully apparent. New forms of teaching and of teacher collaboration are emerging, mostly on-line, in order to maintain learning in very difficult circumstances. We hope that this study with its lens on what is common and diverse in education systems, may stimulate research on emerging teacher collaboration forms around the world and their impact on new forms of teaching.

Notes

1. The creation of large school clusters was an imposed policy from the Ministry of Education resulting in the closure of almost all rural schools in the country. The majority of these school clusters (67%) have more than 1200 students and 15% of them more than 2500 students (Conselho Nacional de Educação 2017).
2. Differences in the number of teacher interviews are owed to contextual school and research conditions in each country.
3. Teacher responses to the OECD 2018 TALIS questionnaire on time spent on actual teaching considering a 60-minute time-frame, is similar for both countries: 70 minutes for Chilean teachers and 73.5 minutes for Portuguese ones.
4. Chile is administratively divided into 16 Regions. They run along the length of the country.

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ORCID

Beatrice Ávalos-Bevan http://orcid.org/0000-0001-6269-291X

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