

Teachers' territorialities. An expanded definition of teachers' professional practice in rural education

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I, Victor Salinas-Silva confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

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Abstract

Teachers' territorialities encompass the claim that teachers' practices do not necessarily have to be perceived as bounded to classroom teaching but can be understood as a way to reconnect with the importance of space in education. In the relationship with school contexts, teachers can be situated within a network of social and spatial relations that provides meaning to teaching but it can also be shaped by teachers. Territoriality becomes a powerful conceptualisation to consider how transformative teachers' practices can be, particularly in its form as a spatial practice. Territoriality and the territory that it generates involves a spatial relationship that, in its South American understanding, focuses on the creation, appropriation and ownership of spaces.

I have explored these issues from a qualitative and interpretative perspective using a multi-site case study as research strategy to generate in-depth descriptions of in-service rural teachers' practices in Chile's Cachapoal province.

Findings in this context have identified different processes that contribute to defining the spaces of professional practice in which rural teachers can deploy their expertise, particularly in contexts of accountability, where administrative and examination requirements seem to have disabled action rather than enabled it. Previous studies have highlighted how teachers react in these contexts with practices of resistance and compliance; however, the examination of teachers' territoriality in the cases studied has indicated how teachers might act in professional spaces that they have made their own or have purposefully created as part of their practice in schools. The significance of these findings has been to demonstrate how teachers can achieve an agentic role as they can transform school contexts into school-based territories that can be spatially diverse and encompass divergent types of knowledge. Territoriality, therefore, can be applied to other settings rather than the rural and to different professions and occupations.

Impact statement

The research on teachers' territorialities has three potential areas of impact: rural education; teacher education and geography education research.

The impact of this research in rural education is first and foremost to the practice of the 87 rural teachers that participated of this research, in particular to the three teachers that agreed for their experiences to be part of the case studies. Rural teachers' practices are commonly romanticised in the literature obscuring the complexity that comes with teaching in a rural school for the expert communities but even to the in-service teachers that are situated in the rural communities. The research findings are significant in showing how teachers practices in these contexts comprises an intricate spatial network of relations with the school communities, organisations, companies and people of the localities. The conceptualisation of teachers' territorialities has been key to highlight that spatial complexity in teachers' practices and to make visible those issues for a wider audience, particularly throughout public engagement ([Storymap](#) and [Storymatic](#) – in Spanish).

Although the research was not intended to have an impact on public policy both the information generated in a specific rural school subsystem and the approach on territoriality, in combination with a research performed in 15 neighbouring communes, have become relevant in Chile. The transformations that are intended to be introduced in the country's school system by reorganising their public education in territorial units involves a substantial challenge for geographical and educational research.

The thesis also has the potential to have impact in teacher education. The research focusses on the practice of in-service teachers; however, the identification of the relevance of out-of-the-classroom practices for teachers is relevant to inform teacher training programmes and understand to what extent pre-service teachers can be prepared to effectively engage in teacher-community relations in different contexts. I have designed a course of Rural Education that developed these issues for pre-service teachers. The course was approved by a panel of professors of the Pontificia Universidad Católica de Valparaíso in Chile and had its first cohort of student teachers in 2021. The design and implementation of the course can be considered as a first application and proof of concept of the ideas that derived from this thesis.

This research has also been presented in national, regional and international conferences for geography education communities at the IGU-CGE, RGS, GA, AAG, SOCHIGEO and REDLADGEO as well as for multiple other communities of experts in education and geography. The premise of spatial practice underlying teachers' territorialities is a particular contribution that can foster further

collaboration amongst these different communities. The Chilean government, throughout its scholarship programme, saw the value of this geographical approach to education and funded the research in its initial proposal. The National Geographic Society has also supported this thesis with a grant that funds innovative research with potential impact for public dissemination. This research has also been published in scholarly journals of geography ([2018](#)) following other previous publications ([2015](#), [2016](#), [2017](#)) that were significant in defining this project on its early stages.

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1. Chapter 1 Introduction

1.1. Research problem

My research interest on teachers' territorialities was sparked by an experience with a rural primary teacher during a visit to his school in 2014 as part of a geography education research project in Chile. During that day the teacher presented different activities and projects that were part of the school's commitment to take care of a nearby nature reserve classified by UNESCO as a natural site because of its biodiversity. The teacher explained that this initiative was in partnership with the local network of rural schools. Each network brings together rural primary schools in local areas, providing teachers who would otherwise be isolated at each individual school with a space for professional development. This particular teacher had recently been transferred from a neighbouring school to take the position of headteacher because of his previous participation in the local network.

The lesson that I observed the day of the visit was for pupils ranging from Years 4 to 6 of the school as part of the daily routine in a multi-grade class. It was a lesson that asked the pupils to draw and discuss the local landscape in the hamlet. It was low pace lesson with infrequent student engagement. However, after the session, during the break for lunchtime, the pupils indicated a different story. They started by showing me the greenhouse that the teacher had built with money from an application for public funding. The structure was used by the pupils to grow native species of trees from seeds they had collected themselves. They had learnt to do this during their weekly sessions with an agronomist. The seedlings were later exchanged by the teacher for resources for the school. A small group of pupils (aged between eight and ten) had also attended a workshop organised by the national forestry agency that taught them about the environment and native species of trees. Later that day, during fieldwork at a nearby ravine, the pupils from the workshop were excited to go to the places that were used by some of their families as pastureland for horses. Occasionally they were visited by a geographer for this activity, an academic from a local university interested in the bio-geography of the area. This was the background that had not been observed during the lesson: project applications, partnerships, three different institutions and individual collaborations that defined this teacher's engagement in the local context.

It was this opportunistic event that **led me to question if teachers, particularly teachers in this type of rural context, develop an expertise that is geographically informed by their local environment, or more specifically through their local geography, both in the sense of the local environment and the specific geographical knowledges related to it.** This relationship between geography and teachers' practice could be seen in how this teacher built a learning environment, by connecting people in

different places and making the school a space with a particular meaning for his pupils. In doing so, the teacher's practice appears to be influenced by a combination of subject and practical knowledge specifically tailored to the school context in which he was situated. Even though this geographical dimension may have been incidental to him, it appeared to be actively influencing the way he conducted his professional practice with his pupils both within and beyond the classroom.

The research problem then is **to consider a geographical dimension of teachers' practice**, and whether this requires an expanded notion of classroom practice. By understanding practice from a spatial perspective, I suggest we could expand the boundaries of the profession to teachers' practices that have not been sufficiently identified as such because they do not conform to the spatially bounded notion of classroom practice. Stories, like the one of the rural teacher then, could be easily misplaced if the interplay between space and profession are not sufficiently understood.

The relationship between teaching and space has been generally overlooked within the literature on education. For example, in psychological studies, the relationship is explained as 'contextual', generally framed as something diverse and undetermined (Amirault and Branson, 2012). The school context is an idea that generates little consensus besides the notions that it is locally based and driven by teachers' practical knowledge on an individual level (Edwards, 2010). Cognitive studies of teacher expertise (Wilson, Shulman, and Richert, 1987) have framed the understanding of context as the final stage in the process of professional growth. This literature suggests that most teachers are unlikely to focus explicitly on their context as an element of their professional development, unlike the case of the rural teacher and what his practices indicated.

Studies in anthropology and sociology have been more likely to address issues of spatiality and the connections that are involved in education. For example, Ball and Vincent's (2007) research in the spatial relations of parents' school choice explores the relationship between geography and sociology, linking their work to conventional notions of space in geography as socially constructed. Soja (1989) has even suggested the existence of a spatial turn in social theory, and some of this extends to several works in education (Lave & Wenger, 1991; Mills, 2011; Riley et al., 2018; Wenger, 1998). However, although these studies have raised awareness about the importance of school settings in social research, the specific spatiality (Lefebvre, 1991) of teachers' practice has not been studied sufficiently. It is in the problem of the teacher's spatial practice that further linkages can be established, in particular, the implications that a geographical dimension of teachers' practice could have in the definition of the profession and its fields of specialisation (Young & Muller, 2014).

Within geography education, there is a predisposition to study the issues of space and contextual knowledge, but this does not fully explain the phenomenon described above with the rural teacher.

This locally specialised knowledge can be studied by considering some challenges for the field of geography education. Firstly, there is a geographical understanding of curriculum-making practices but it has generally been treated as an element of content knowledge in classroom practice (Catling, 2013). In this case, pedagogical content knowledge (Shulman et al., 1987) has been an organising principle in much of the research in this field (Araya, 2005; Martin, 2008b). However, the professional problem for the teacher here has been less about a specific geographical content and more about the application of geographical knowledge to understand the school context. Secondly, the notion of specialisation in geography education has been regarded as a matter of teachers' subject expertise, dividing teachers into subject specialists and non-specialists (Mitchell & Lambert, 2015). However, to bridge this gap there are developments within the field that allow reflection on the role of teachers' subject expertise in society (Roberts, 2014; Young & Lambert, 2015). This suggests a concern with how school geography is defined, also indicating a timely moment to explore what geography means within geography education (Brooks, Butt, & Fargher, 2017). International changes in school systems have framed this discussion, prompting further inquiry into the infrastructure supporting and influencing the work of teachers in various contexts (Alexandre, 2016; Arenas-Martija, Fernández & Pérez, 2016; Brooks, 2016; Mitchell, 2016; Seow, 2016).

1.2. Significance of the study

The current education context is highly fluid and changeable (Butt, 2020; Downs, 1994; Graves, 1975; Mitchell, 2016; Rawling, 2004), which makes a detailed analysis of teachers' practice in times of change even more pertinent. The discussion of teachers' practice becomes necessary in an educational scenario of uncertainty. With various governments engaging in educational reform (Barber and Mourshed, 2007), it is important to ask whether school members have sufficient capacity to sustain changes. This may be the reason communities of geography educators have organised several initiatives to discuss and redefine the meaning of geography education in their different contexts. In England the Geographical Association addressed this issue in its manifesto "A Different View" (Geographical Association, 2009) and since its relaunch in 2019 the Geography and Education Research Group of the Royal Geographical Society has explored the geographies of education and pedagogy in geography perspectives, and the nexus between the two themes (West et al., 2020). The Association of American Geographers prepared the "Road Map for 21st Century Geography Education" (Bednarz, Heffron, & Huynh, 2013) and the Chilean Society of Geographical Sciences in a concerted national effort published "A Geographical Education for Chile" (Arenas-Martija et al., 2016). These publications exemplify different efforts within diverse institutions that indicate the need to revisit conventions on how the research communities understand the importance of teachers' practices and their contribution to society at different scales.

Discussing teachers' practice could involve different approaches to curriculum or assessment, but focussing on the professional issues revolving around curriculum-making and didactics can generate an understanding of what it means to be in a classroom, and the relevance of teaching as a profession that endures uncertainty and leads cultural processes of societal change. This is important when the focus is on practice rather than public policy. As Roberts (1995) has suggested, when faced with new curriculum guidelines, teachers tend to revert to their tried and tested conceptions of the subject and the practice that involves. In a different scenario, Brooks (2013, p. 83) considers that 'the effectiveness of the policy is dependent on two factors: the extent to which teachers engage with those changes, and the extent to which the changes are in tune with the local context and the dominant influences that enact on that context'. This indicates that the relationship between teachers' practice and structural changes in the school system is not necessarily direct. Teachers might not completely endorse requirements prescribed by national legislation, but notions about practice represent social discourses that need to be continuously reconciled by teachers (Seow, 2016).

It is amid a wider context of continuous social and educational reconfiguration that this research has considered the need to bring a geographical understanding to teachers' practice. This involves numerous issues relating to teachers' practices at school. On the one hand, it concerns the problem of teachers as curriculum deliverers that has been criticised by Mitchell and Lambert (2015) and on the other, the uniformity with which teachers' practices are conceived across school systems (Brock, 2016). The former is problematic because of the focus that has been given to curriculum coverage as an aim for teachers' practice. The latter accentuates a systemic view that conceals local pieces of knowledge and the diversity that could ensue from them. Hence, the need for a geographical understanding that can approach current educational complexities by considering the spatial relations that bind educational systems together.

The conceptualisation used to explore teachers' spatial practices is of particular significance for the context of the study. Territory, as a geographical concept, involves the categorisation of power that enables the appropriation and control of space (Garrido, 2020; Sack, 1983). But, moreover, territoriality in South America represents an epistemology (Bonaventura de Sousa Santos, 2016; Haesbaert, 2020) that signifies the locally driven bond that people generate with their land, as a social and natural relationship of meaning that represents an hybrid space (Santos, 2017). Thus, people's territoriality is an understanding about how spaces are alive in an ontological relationship (Escobar, 2015; Mansilla-Quiñones and Melin-Pehuen, 2019) where the territory can be conceived as another agent influencing and framing the actions of people.

The consideration of a territoriality of teachers' practices can contribute to understand the complex spatial relationships that teachers sustain within their school communities, in particular regarding the specific spatial processes that involve achieving agency (Priestley, Biesta, and Robinson, 2015) within a school context rather than just taking it for granted. Therefore, the study of teachers' territoriality aims to generate an understanding that can help teachers to envision their own professionalism as a dialogic relationship between context, knowledge and people.

Research has studied teachers' territorialities within their everyday practice (Brooks, 2010; Collins & Evans, 2007; Pumain & Sain-Julien, 2014). The focus on territoriality has been relevant to explore geographical particularities within teachers' practices and understanding how teachers gain expertise as a process of specialising in a variety of problems that they encounter in their professional life, reinventing their role within each context and subject. However, despite the advantages that can bring to incorporate the territory as an analytical category, the scope of previous research has bounded its conceptualisation to specific areas and epistemic communities.

Territory is a powerful geographical conceptualisation in South America. Its presence as school content has been identified in most countries of the region (Brooks et al., 2017). Recently, geography educators in South America have highlighted its potential beyond geography curriculum to help pupils understand their positionality within their communities and encourage civic participation (Garrido, 2020). However, the link between territoriality and teachers remains insufficiently studied, particularly from a perspective that highlights the interplay between space and profession. According to Haesbaert (2013b), the studies on territoriality in the region are generally empirical and, furthermore, the scholarship that they seek to contribute to is typically focus on political and environmental conflicts. Further discussion in this thesis aims to clarify conceptual differences and, to suggest how a study on teachers' territorialities can have further theoretical implications on the geography and geography education literature.

The implications of the understanding on teachers' territorialities are not restricted to rural teachers alone. It can also contribute to the practices of teachers in different subjects, settings and professional cultures. The lessons learnt from rural teachers' territoriality in Chile invite us to consider their rurality, and any other teachers' context, as an educational project created, preserved, and even defended, by the teachers and their communities. For the teachers in the study, it involved an aspect of their profession that spoke about the embeddedness of their work. However, regardless of their origin as natives or newcomers to the community in which they were teaching, the participating teachers have shown that their territoriality is something that they were able to learn. As such, those territorialities became transferable and differentiated from locally bounded experiences, in an understanding that

highlights the importance of this study as an attempt to open the possibility for dialogue and mutual coexistence of different school-based territories and the knowledge that sustain them.

1.3. Aims

The aims of the research are based on the two distinct sections of the literature review to address both interlinked dimensions, teachers' expertise and geography:

- To understand how in-service teachers gain expertise as part of spatial processes within their educational contexts and professional practices.
- To explore how a geographical dimension of practice can inform and influence teachers' professionalism.

1.4. Thesis structure

The argument about the geographical dimension of teachers' professional practice is based on the notions of practice built from within the geography education literature. Chapter 2 explores two stepping stones within this field, didactics and curriculum-making, to enable the incorporation of spatial problematisation on teachers' practice. This chapter progresses towards an expanded definition of practice that includes geography as a professional dimension, to better understand the relationships that teachers build with their pupils and communities. Here, I have incorporated previous geographical studies on territoriality to consider its application in the field of education, which in this thesis (Figure 1.1) has been explored as a form of problematisation that emphasises the transformative role of teachers in their local space. The literature review and the developments in geography education guided the argument to this direction at a time of multiple concerns over its present and future as a field of research (Arenas-Martija et al., 2016; Butt, 2020).

Chapter 3 explores the methodology to conduct research on teachers' territorialities and the complexities of conducting educational research in rural settings. This chapter establishes the reasons for proceeding with a qualitative study and choosing a case study as the best research approach to explore the links between teachers' practice and their spatiality. An expanded definition of teachers' practice involves reconsidering how we observe teachers' practice and their territoriality as a phenomenon. Lesson observations are the conventional method of exploring teachers' practices, but given the scope of the research additional methods were considered, such as shadow observations, teacher interviews and interviews with members of the community that enabled an exploration of out-of-the-classroom practices without losing the link with the primary focus of teaching – the pupils' learning. Alternative methods were also developed, such as car interviews, that enabled me to elicit

spatial information about the school context and large-scale surveys to account for the particularities of educational research in rural settings of Chile.

The analysis chapters begin with an exploration of teacher-community relationships in Chapter 4, which makes qualitative use of survey data collected specifically for this research among teachers in rural schools in one province of Chile. This chapter serves as a context to the case studies, but I would invite you to consider it as an additional layer of analysis that accounts for the scale and spatial particularities of rural education and its influence on teachers' practices and their provincial networks. Chapters 5, 6 and 7 are case studies of three teachers working in different rural localities of the province. They inform an in-depth exploration of teachers' territorialities that describe distinct territorial processes. Chapter 8 weaves the relationship of these three cases together in a theoretical discussion about the different conceptualisations on the issues of teachers' territoriality, territorialisation and territory observed in this research. Chapter 9 concludes by drawing together the implications of teachers' school-based territories and teachers' professional expertise required to produce this type of territoriality by the notion of 'territories of expertise'.

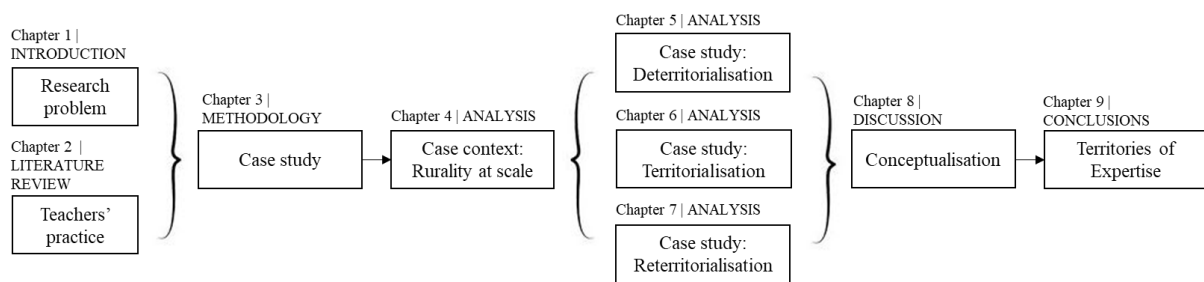


Figure 1.1. Thesis structure.

2. Chapter 2 Literature review

The phenomena of teachers' territorialities that is explored in this thesis is embedded within the problem of how we can understand teachers' practice as an interplay between space and profession. This problem involves certain challenges for research in its framing. Territoriality is a geographical conceptualisation that is rarely used in education (Garrido, 2020), much less with the agentic sense that I have drawn from the perspective of South American critical geography (Haesbaert, 2013b; Santos, 2017) with which it is possible to understand teachers' spatial practices in their own situated professional spaces (Brooks, 2016).

An exploration on teachers' territorialities does not focus on classroom practice as an issue of curriculum making (Catling & Willy, 2009; Lambert & Morgan, 2010) or didactic transposition (Chevallard & Bosch, 2013) but it is very much concerned about teachers' professional decisions to make that happen. If we understand teachers' practices as a phenomenon restricted to a matter of didactic transposition or pedagogical content knowledge (PCK) (Wilson et al., 1987), we might soon realise Stengel's (1997) argument, and to some extent Bernstein's (2000), about the discontinuity of the knowledge that is inherent to the practice of in-service teachers. Practices and bodies of knowledge might originate in certain institutions but they do not circulate linearly across different places and spaces.

Furthermore, teachers' practices can create or hold different pockets of knowledge and expertise (Collins and Evans, 2002). Hence, the decision to define the scope of research within the frame of teachers' professional practice (Brooks, 2016; S. Kemmis, 2014). Teachers' movement in and beyond the classroom might suggest the incorporation of teaching practices that can be observed outside the classroom through active learning sequences (Muñiz Solari, Solem, and Boehm, 2017), outdoors learning and fieldwork (Oost, Vries, and Schee, 2011) or even informal education models (Guerrero and Reiss, 2020). However, this movement 'in and beyond' conveys a more powerful idea about what teachers do and how do we know about what they do (Brooks & Hopwood, 2005). It contests the prescriptive idea that the code of ethics and specialist knowledge of the profession becomes exhausted in the classroom as if, the social mandate on education (Biesta, 2020) would have boundaries that are not permeated by the school community or society.

I suggest that in this interplay between space and profession, there could exist multiple spatial practices (Lefebvre, 1991; Massey, 2008) occurring in education, however, territoriality (Haesbaert, 2013b; Santos, 2017) is one that can meaningfully depict the influence of teachers within their

restricted spaces of action, positioning teachers in a central role organising the school context and their professional practices.

Therefore, this literature review is organised in three successive overlapping layers starting from teachers' practice and moving towards teachers' professional practice which is underpinned by spatial practice in its relationship with territoriality.

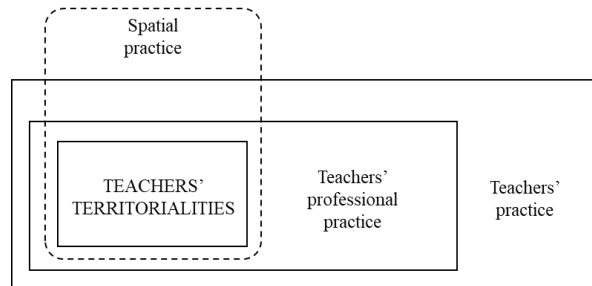


Figure 2.1. Literature review structure

The three main sections of this literature review are informed by multiple fields of study (Figure 2.2), but there are three in particular that dominate the discussion: geography education, critical geography and rural education.

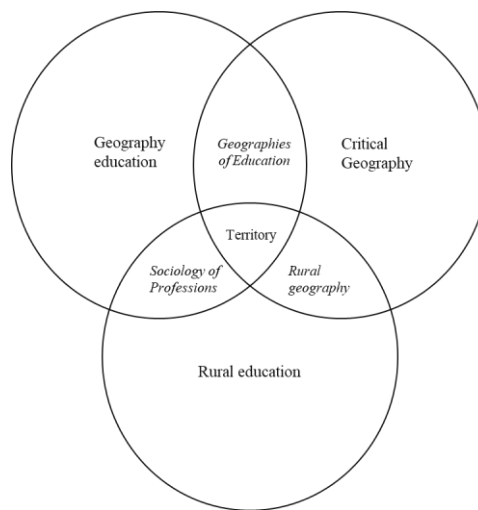


Figure 2.2 Fields of study

The literature review sits mainly in the field of geography education. It is the original foundation of the thesis and the main area that I expect to be contributing to extensively with this research. It is, likewise, a starting point, as I move away from its core discussions on classroom practice and curriculum into the challenge of rethinking the relationship between geography and education to understand the social, political and cultural dynamics of teachers within their work contexts.

I have designed this research to provide insights into the role that space plays in the work of teachers. This endeavour integrates teachers' multiple dynamics into a spatial perspective of the profession. Therefore, I expect this research to also contribute to the growing scholarship of geographies of education. In particular, this contribution comes directly from South American Critical Geography from which I have drawn to frame the concept of territory (Gallo, 2017; Haesbaert, 2013b, 2020; Melgaço and Prouse, 2017; Pulgarin, 2011; Santos, 1994, 1996, 2000). This conceptualisation can provide additional descriptive language to understand the different spatial layers at play when teachers deploy their professional knowledge and how intertwined this action can be in relation with political and cultural processes of school-community relations.

Rural education is a key area to understand the context of the study. Although informative, most of the scholarship on rural education (Ávalos, 2004; Corbett and Gereluk, 2020; Nuñez, Peña, Cubillos, and Solorza, 2016; Oyarzún, 2020a; S. White and Corbett, 2014) is scattered and can hardly be called a clearly defined field. It appears consistently within educational and sociological literature as a theme that is explored empirically. Rural education worldwide appears to share similar problems regarding school closures and rural out-migration in different countries, but it is difficult to find core concepts that facilitate the dialogue across different pieces of research.

Rural Geography, conversely, became a corner stone in this regard. Although most of the literature in this area does not focus on education, its descriptions of rural areas, and particularly the studies of Michael Woods (2010, 2011; 2017), remedies the often-underestimated dynamism of rural places and rural society. In South America, the link between rural studies and research on territoriality (Escobar, 2015; Mansilla-Quiñones and Melin-Pehuen, 2019; Ramírez-Miranda, 2014) is important to highlight as the term has been used to explain the processes of rural restructuring in a context of global pressures. Similarly, South American geographers have entangled the different notions of rurality with the territory, as a form of territoriality that is experienced by its inhabitants and expresses a form of being in space as I will later demonstrate in this thesis.

It is in this context that the work of Michael Young and Johan Muller (2014; 2016) has been relevant to understand how teachers' practices unravelled in rural areas and how they contribute to produce different forms of rurality. I explore this by taking into consideration how teachers produce space by deploying their professional expertise. In this thesis, the debate concerning the concept of powerful knowledge, rather than the term itself, was useful for the research. It framed how to understand the borders and the knowledge informing a profession. The response from the philosophy of education (Beck, 2013; White, 2018) in this regard and the internal controversy in the community of geography educators about the primacy of everyday geographies or specialist knowledge (Catling and Martin,

2011; Lambert, 2017; Maude, 2016, 2018; Morgan and Lambert, 2018; Roberts, 2014; Young and Lambert, 2015), paved the way to my research by highlighting how knowledge is not neutral and innocuous. It is a highly political construct as well as its sources and forms of structuring it.

The number of fields of study from which the thesis is drawing indicates the complexity of the task to effectively closing the gap between geographically informed spatial perspectives and educational studies. At the core of this discussion, I have placed the concept of territory as an interlink weaving all the fields together. As I explore in the third part of this literature review, territory can be considered a threshold concept (Brooks, 2018; Meyer and Land, 2005) that provides a gateway to understand both territory as a spatial object and the territoriality that is generated around it by peoples' experiences and forms to engage with space.

Territory in South American critical geography is a concept, but it can also be considered an area of studies by its own right. My thesis attempts to translate this South American perspective, considering that the scholarship that develops it is rarely considered outside the region and on the rare occasion that it is, it is often misunderstood as a set of studies focused on territorial conflicts rather than providing an original approach to the understanding of space and its multiplicity. It is an effort of translation beyond the language gap but to the problem of how the studies on territoriality are communicated. Most of the works that use the term territory are empirical (Donoso Díaz and Arias Rojas, 2012; Pimienta Betancur, A., 2008; Rimisp, 2020) and restrict their contribution to either their own case study or to a broader, but rather disconnected, anti-capitalist agenda. It is hard to track the historiography of territory, but it is a necessary task that I have undertaken in this literature review and in the discussion chapter in order to examine the basic but complex question of the nature of territory and its application in education.

As shown in figure 2.1., the following literature review is organised in three consecutive sections that move towards the final part, which describes the geographical understanding on teachers' practice that encompasses the literature on territory and territoriality. Each section should be considered a step leading to the next one in order to understand how teachers' territorialities can be positioned in the nexus of geography and education.

2.1. Towards an expanded definition of professional practice in geography education

2.1.1. Teacher practice in geography education

In recent decades much criticism has been pointed to the work of teachers, particularly from public policy discourses, school effectiveness and improvement research in which it is argued that 'teachers matter' (Barber and Mourshed, 2007; OECD, 2019). Priestly, Biesta and Robinson (2015) have argued that this literature has based its discourses on a normative approach of what teachers' practices should be rather than paying attention to the actions that teachers already do at schools. Therefore, this section explores how teacher practice has been problematised in the field of geography education in a descriptive rather than normative way to the work of teachers. Research in geography didactics and curriculum-making are two long established fields that have built an understanding of teachers' practice from within and in consideration of teachers' knowledges.

I have attempted to approach both fields in a similar fashion as didactics is considered in Chile, as the language of teachers. Didactics is a field that public policies discourses have not been able to fully grasp given its technical complexity but yet circulates as professional lingua franca in different teachers' cultures. The challenge for geography education therefore appears to be how to understand the relationships between the two fields in coherent and systematic ways.

The importance of grounding this research on didactics and curriculum making is that these fields are structured to understand the multiplicity of knowledge and to operate as the nexus between teachers and students. The field of didactics has been one of the drivers of geography education in Chile (Araya, 2005; Arenas-Martija, 2009; Garrido, 2005) and Ibero-America (Callai, 2016; Moreno Lache et al., 2013; Souto, 2013; Souza Cavalcanti, 2012; Vanzella Castellar, 2011). It considers the pedagogy involved in the act of teaching and, as a field of studies, attempts to characterise the procedural elements required to teach and learn a subject. Didactics is situated between pedagogy and knowledge, playing an interactional role (Collins and Evans, 2007). It emphasises the role of the educational context in the interaction of the two different spheres of knowledge. Other dimensions have been added interchangeably but pedagogy and knowledge are the key to understand the didactics of a specific subject.

The notion of didactics has changed over time. Originally it was deeply associated with the techniques, strategies and resources that teachers used in their lessons (González, 2002). Using worksheets, images or other resources in a lesson was - and still is - considered 'didactic'. The term remains because it retains its original meaning, which is to describe good teaching. However, the influx of

socio-constructivism during the mid-nineties mirrored new demands on the educational system (Coll, 1993; Coll, Pozo, Sarabia, and Valls, 1992). Didactics would gradually transform from being resource-centred into a learner-centred approach (Pages, 2000), incorporating discussions on how students would learn and how they would learn a particular subject.

It is in this context that didactic transposition, one of didactics central concepts, was criticised and to some extent went into disuse amongst Iberoamerican subject specialist communities. The term refers to the deconstruction and reconstruction of science knowledge, values or practices in order to make them teachable (Chevallard & Bosch, 2014). Achiam (2014, p. 2) describes it as a process that 'entails the successive adaptation of an object of knowledge to the institutions or 'ecologies' it is transplanted to. These adaptations may include reorganisation, substitution, simplification, enrichment, and modality changes'. However, Achiam (2014) also argues that this theoretical notion grew from a descriptive framework to a more normative construct of what is practice in education. It is no surprise then, that 'didactic transposition' acquired the connotation of an old fashion practice that favoured a transmissive form of curriculum incompatible with the notion on skills. In Chile, the constructivist influx in the 1990s involved a substantial influence of cognitivist approaches that positioned the use of skills over other knowledge components in the curriculum. This reorientation in education exemplifies a well regimented Future 2 curriculum (Young & Lambert, 2015) as cognitive constructivism circulated as an overall educational ideology (Rawling, 2004) in a time when in Chile and other countries in South America the new democratic regimes were pushing for the modernisation of education and reform in its school system.

The concept and practice of didactic transposition as nexus between spaces of knowledge was gradually replaced by the one of pedagogic content knowledge (PCK) (Wilson et al., 1987). Didactic notions have had their own long-lasting history in the country as they have been updated for different versions of the school curriculum for different projects of society (Bello, 1881; Chaparro, 1967; Steffen, 1910). However, the introduction of PCK involved adopting a different knowledge tradition, based on Anglo-American psychology, that ruptured the link with disciplinary knowledge communities.

Furthermore, despite its important contributions to the understanding of learning, the replacement of the notion of didactics for PCK have also involved a process of academic colonialism (Bonaventura de Sousa Santos, 2016). The structures created by public policy deemed relevant to incorporate internationally validated conceptualisations of teaching, even when introducing a new concept was to some extent unnecessary as the phenomenon described by PCK was already identified amongst teachers as didactics. Garrido (2020) suggests that this 'assault on didactics' created a void that enabled the introduction of non-epistemic rationalities that left the curriculum exposed to political

manipulation and narratives of accountability. This argument echoes similar problems internationally as high stakes assessments continue to influence teachers' practices (Bijsterbosch, Van Der Schee, Kuiper, and Béneker, 2016). The particularity for South America is that these processes are partially driven by the region's history, accustomed to power asymmetries which also manifest in implicit hierarchies of knowledge (Gándara, 2020; Miller, 2020) in its scientific and intellectual developments.

Nevertheless, even with didactic transposition rendered obsolete, the purpose of the concept as nexus between different pieces of knowledge endured as an underlying principle for the field of didactics (Araya, 2005). As a field, didactics organises the language necessary to describe and inform classroom practice, in what has been described as the didactic triangle or the interrelation between content, teacher and learner (Hudson, 2016). But more importantly, what this resilient principle indicates, in Kuhn's (1996) understanding of normal science, is the existence of a core conceptualisation in which it is possible to define a space of epistemic validation for the language of teachers. It also indicates the presence of a core understanding to which the field can return to after a crisis. Issues of epistemic quality (Hudson, 2018) and geographical knowledge (Maude, 2016) are enabled into what Healy (forthcoming, 2021) has identified as 'the hermeneutic orientation of didactic analysis [which] emphasises that teachers will interpret and make sense of disciplinary knowledge for themselves'. This positions didactics, as a field of reproduction that it has its own knowledge structure.

Contemporary notions of didactics have continued to highlight the relationship with the parent discipline of a school subject as a process of specialisation. According to Callai (2016) the field is so intertwined with the issues of subject knowledge that pedagogic discussions that do not account for this element can be considered void of meaning. There is a common understanding amongst researchers (Cavalcanti, 1998; Souto, 2013; Castellar, 2011) that the involvement of geography didactics within the field of geography requires teachers' specialised understanding of the epistemological dimension of the discipline. According to Araya (2005) the epistemic focus of didactics contributes to an understanding of how geography is constructed. It points in the direction of how learners can think geographically and relate to geographical content.

Furthermore, the structure of geography didactics confirms Stengel's (1997) argument. This suggests that school subjects are to some extent connected to an academic source, which means that geographical knowledge is accountable in a discussion or inquiry, making it reliable, fallible and potentially testable (Young 2011). Indeed, subject specialists are required to know what they are going to teach, and – more importantly - to better understand the knowledge informing a specific teaching practice (Harte and Reitano, 2015). This, in turn, contributes to teachers' professional autonomy with respect to external examiners and national requirements as it makes transparent and traceable the

criteria and knowledge that informs teachers' practice. This procedure is of great importance, as it not only applies to subject knowledge, although it originates from it, but to any piece of information that might be used in classrooms.

Although curriculum-making and didactics are informed by different professional cultures, they generate similar debates in different international contexts. For the Geographical Association, curriculum-making can be understood as the balance between 'the three sources of energy in the classroom: the teacher's own practical skills and expertise; the interests and needs of the students; what the dynamic, changing subject discipline has to offer' (Geographical Association, 2009, p. 27). This manifesto is to some extent aligned with the conceptions about the subject teacher stated by Marsden (1997) indicating that teaching practice should find a balance between subject content, educational process and social purpose. This suggests an interactional dimension of curriculum-making that is unique to the experience of a subject teacher. It is related to teachers' enactment and the transactions required to provide good teaching to pupils. According to Lambert & Morgan (2010) this means its focus is not in curriculum planning or curriculum design which are actions referring to technical elements of teachers' everyday actions. Curriculum-making attempts to contribute to their professionalism and the knowledge base required for decision making.

One of the main differences between curriculum-making and didactics is how they conceptualise their relationship with curriculum. The foothold of curriculum-making in curriculum enactment (Lambert & Morgan, 2010) indicates a focus on teachers' practice inside the classroom. According to Catling (2013, p. 443), 'for the GA the term is focused on the creation of medium-term planning, derived from a scheme of work, which becomes the basis for lesson planning'. However, the Geographical Association (2009) proposal compares teachers' practice with the prescribed national curriculum. Suggesting that the validity of what and how particular content is learned comes from outside teaching practice. Conversely, for Araya (2005) teachers' "didactical practice" is not just the act of interpreting a curriculum specification. It is conceived both as teaching practice and as a form of knowledge, suggesting that a teacher's "didactics" is independent of the curriculum. Despite the differences, curriculum-making and didactics share a common understanding about the differences between a national curriculum and the enacted curriculum (Catling, 2013; Souto, 2013). They also highlight the importance of these discussions as a matter of professionalisation and teachers' authoritative position regarding decision making (Arenas Martija & Salinas Silva, 2013; Brooks, 2013). Differences between the two fields are mainly related to issues of how the field is structured and its traditions. There are also several foundations to bridge the gap between the two, including the problems that geography educators are facing in current times such as standardisation of teaching practices by effect of high-stake assessments (Bourke and Lane, 2017), curriculum oversimplification (Mitchell, 2016), or

neglected teachers' subject expertise in Initial Teacher Education or Continuing Professional Development (Alexandre, 2016).

An underlying problem to teachers' practice are the issues of validity associated with the process of gaining expertise in a particular area (Brooks & Hopwood, 2005). It represents a challenge for every subject specialist wishing to redirect their pedagogy towards a better relationship with the context. There are other arguments in the matter of curriculum-making and teachers' agency asserting the tensions of the knowledge that is informing learning (Hart, Biggeri, and Babic, 2014; Huber, Murphy, and Clandinin, 2011). They highlight the importance of criticising subject knowledge and its role in current teaching practice. Huber et al. (2011) see an incompatibility between subject knowledge and other knowledges. For example, this discussion draws attention to curriculum-making as the expression of a teacher's personal practical knowledge, which, according to Dentice & Garrido (2013) and Huber et al. (2011), offers a better approach to pupils' context. But, is not regarded as valid in formal academic structures of knowledge by subject specialists.

However, the incompatibility between practical and subject knowledge is to some extent a misunderstanding. In the case of geography the same arguments stated by Huber et al. (2011) have been raised as relevant matters for the school subject. Roberts (2003), Catling (2014) and Cavalcanti (1998) have argued in different contexts about the importance of everyday knowledge. Roberts addresses the problem arguing that teachers can take into account pupils' ways of understanding to provide opportunities for students to reconstruct their existing knowledge in discussion with others. Catling argues that children's geographies can empower their own voices about the school subject (Catling, 2014, p. 352). In doing this, Catling emphasises personal geographies and notions of identity to understand pupils' contexts as means of fostering their role in learning. Cavalcanti highlights the positive use of everyday knowledge as place knowledge but cautions against its use as simply an engagement strategy recalling pupils' individual experiences. This indicates that incorporating everyday knowledge into issues of subject knowledge is a common matter amongst subject specialists. It involves different learning strategies and conceptual tools to achieve that goal, which are developed as part of teachers' subject expertise.

In the process of building an argument for a geographical understanding of the teaching profession, it was necessary to firstly define what was being understood by teachers' practice. Within geography education this involved recognising how teachers develop an interactional expertise, communicating and linking different knowledges to foster students' learning, ranging from practical and local to disciplinary knowledge. This is important for my research because it posits teachers as agents that can negotiate different knowledge claims of people and organisations influencing pupils' learning

experience, not just as practitioners that have a foothold in knowledge of their school subjects. That is a core element of teachers' professionalism that later will be discussed in the second part of the literature review as one of the ways in which teachers exercise their territoriality (part 2.2. A geographical understanding of teacher practice).

2.1.2. Teachers' professional practice

Teachers' practices are not only what happens in the classroom. Professional practice refers to the actions and endeavours of teachers outside the classroom that stimulate and influence their work. Researchers in geography education have been moving towards this area such as Brooks (2016) and Arenas (2009) that share a similar concern about teachers' professionalism in different international contexts. However, the issue of teachers' professional practice is not solely about expanding our understanding into out-of-the-classroom practices but making sense of the further complexities affecting teachers' everyday practices. Butt (2020) has argued that this focus has been neglected by a preoccupation on 'what works' in geography education, i.e. responding to the question on how to teach before the one on why to teach. Biesta (2018; 2020) has similarly identified this as a process of 'learnification' where school systems have created a discourse around learning theories that foster pupils' alienation and loss of the meaning of education as a project of society. In this thesis I have examined how the literature in geography education has the potential to contribute in reconnecting societies with their own educational projects and how the refocus on teachers' professional practices can be constructive.

Literature on teachers' professional practice can be divided according to the different spaces that teachers are involved with. Clandinin & Connelly (1995) developed the notion of professional knowledge landscape to draw attention to the intellectual and moral dilemmas teachers experience as they navigate a landscape 'filled with diverse people, things and events in different relationships' (Huber et al., 2011, p. 4), moving between classrooms and other places within and without school.

Practices associated with in-classroom activities are easier to identify than others. For example, Darling-Hammond (2011) highlights the way teachers interact with one another as a key factor in building communities of professional practice. 'Co-operation and collaboration among teachers has repeatedly been found to be a particularly important element of professional practice and can include the exchange of instructional materials, developing curricula, meeting to discuss student progress, and collective learning activities' (OECD, 2013, p. 35). Literature in geography education (Conway-Gomez and Araya Palacios, 2011; David Lambert and Morgan, 2010; Scoffham, 2010) has considered collaboration among geography educators as a fundamental element in expanding pupils' and teachers' local understandings, emphasising teachers' professional dimension as support to a

particular pedagogy or practice. Puttick (2016) analyses the relationship between individual and collective stories of teachers within a geography department, suggesting 'teachers' autonomy, identity, status and judgement have been undermined through centralisation of decision-making' (Puttick, 2016, p. 135). In this contexts, subject department plays an important role in teachers' subject knowledge, influencing the types and sources of knowledge in the school community that are accepted as part of the student-teacher interaction.

Outside of the classroom there are boundaries that teachers find difficult to cross and which act as barriers to the moving of knowledge and expertise around and within the school system (Ainscow, 2015). Within schools, teachers are 'pull[ed] back' to individual classrooms, and in less successful schools, teachers do not know what each other is doing (Avalos and Assael, 2006). Beyond the school, there are other establishments and organisations but curriculum goals as competencies (Alexandre, 2016) can constrain teachers' agency (Klocker, 2007) limiting their capacity for action by formatting 'best practice' and encouraging particular learning outcomes.

Teachers' practice is mostly an individual activity. Therefore, for teachers it might be difficult to incorporate a networked practice as part of the professional activities. In the case of Chile, Montecinos et al. (2014) suggest that networks of collaboration do not necessarily support knowledge transfer. Teachers with an accredited 'excellence performance' might not necessarily act as guides in relation with their peers. In the case of Chile (Montecinos et al., 2014, p. 287), this type of teacher might find 'their intellectual capital blocked by the social capital they need to operate as consultant or in the role of mentor because it builds upon provider-client relationships (not peers)'. The social capital that should be invested in building a relationship with the mentored teachers can be questioned because is externally defined by the central authority. According to McNamara, Jones, & Murray (2014, p. 16) this has proven to be one of the reasons that has encouraged political intervention, reinforcing a cycle of misleading understanding of teachers' professionalism:

[Are] part of the reason why it often proves easy for policy-makers to reduce teacher knowledge to subject knowledge (gained during degree level study) and basic skills needed to achieve classroom 'competence', as narrowly conceived form of professional knowledge and teacher professionalism.

Although teachers' professionalism has an individual basis, Clandinin & Connelly (1995) highlight the social dimension of teachers' practice, building an understanding of multiple and simultaneous places that constitute the profession. Brooks (2007; 2016) builds on this argument, emphasising there are multiple relations between teachers' practice (micro-setting) and a meso and macro system of diverse cultures. 'Outside of their school subject and its parent academic discipline teachers can be influenced by three broad cultural contexts: those of the general education landscape, their particular school context and their personal background' (Brooks, 2016, p. 30). The idea of cultures of influence

summarises an underlying notion within geography education which is that every practice is informed by different pockets of knowledge (Salinas-Silva, Arenas-Martija, and Margalef-Garcia, 2016).

Teachers' practices express accommodation and adaptation in the interaction with different actors and their social codes (Bernstein, 2000). For Brooks (2016, p. 29) 'a teacher may be part of a school or subject culture that actively disagrees with the dominant ideas from the broader culture of education but can still participate within both of them'. This describes the presence of contested contexts of professionalism indicating how resilient teachers' practices – and the ideas they embody - can be to curriculum change or organisational structure (Alexandre, 2009).

Thinking outside-of-the-classroom is important for my research because many of the teachers' decisions occur within and because of this professional context. It is also important because it adds complexity to the way teachers' practice is defined, helping to identify what is at stake when a teacher chooses one particular practice over other, what is the role of subject specialism among these different influences (Brooks, 2016) and how it helps teachers to navigate their professional knowledge landscapes (D. J. Clandinin and Connelly, 1995).

2.1.3. Expertise as specialisation of practice

Expertise is widely used but rarely defined within the geography education community. This term appears in a range of research about geography education and teacher practice (Arenas-Martija, Salinas-Silva, Margalef-García, & Otero-Auristondo, 2016a; Brooks, 2010; R. Downs, 1994; Rawling, 2004). It is commonly associated with teachers' subject expertise which in the field of geography education constitutes a process of differentiation between specialist and non-specialist teachers (Downs, 2014), representing a range of knowledge on geography. However, research coming from primary geography and the previous discussion on professional practice contributes to envisaging a different understanding of this term, moving the conceptualisation of expertise away from understanding it as an attribute of an expert, towards an expanded definition of teachers' practice based on their specialisation in the context.

Primary geography in Ibero-America comprises a teacher education which could be superficial regarding subject knowledge with a reduced number of geography courses in some cases (Salinas-Silva, Perez-Gallardo, and Arenas-Martija, 2015). In different parts of the world this might negatively affect teachers' professional identity (Brooks, 2016; Vanzella Castellar, 2011) and their self-efficacy in teaching geography (Harte and Reitano, 2015). However, the notion of specialist here, limited to the use of teachers' qualifications provided by an institution or programme only is misguided. Martin (2008, p. 14) argues that 'while the majority of primary students [teachers] are non-geographers, even

those who hold a geography degree seem to have difficulties putting their conception of geography into practice'. Regardless of qualification, primary geography teachers hold much understanding of 'children's geographies, their experience in their environments, their spatial awareness, and to a lesser extent their sense of the wider world' (Catling & Willy 2009, p. 177).

The position of primary geography in the school culture contributes to understanding a version of teachers' subject expertise decentred from the conventional knowledge basis. This development is partially explained because of the age-group taught by primary teachers (Martin, 2008a). This has been treated as a problematic element in some educational contexts. For example, educational cultures following Piagetian learning theories understands that 'pupils should not be taught certain concepts until they have reached the appropriate stage of cognitive development' (Roberts, 2003). By following this notion of learning progression, early stages of schooling are undermined and its teaching attributed with a lower status because of the use of more circumstantial or experiential knowledge use to promote learning (Salinas-Silva et al., 2015). This is contested by Martin (2008b) who considers that there are proper mechanisms within the profession to control the quality of teaching practice. For example, 'practitioners are enabled to become aware of, and criticise, their tacit frameworks, this has been a critical part of the process of professional development' (Martin, 2008b, p. 14). Status and knowledge are to some extent related and they influence the attribute of specialist. Thus, the lesson learnt from research in primary geography is that expertise is not limited to formal qualifications but includes the processes of specialisation which range from subject knowledge to experience. Therefore, when they draw upon everyday experience, it is through the lens of their specialised (and in some cases academic) knowledge.

Another element informing the notion of expertise as specialisation is the way the literature on teachers' practice highlights the importance of context as a source of examples and meaningful learning for students (Catling, 2014). However, the problem that subject specialists have in dealing with the context is when they recognise that it is not only the source of information but – moreover - a source of knowledge. According to Polanyi (1983) this could involve a particular way of practical knowledge or thinking that could influence professional knowledge or 'contaminating' it – as modernistic views would argue (Wynne, 2003). Therefore, there are elements that facilitate interaction and others that are recognised as contributory to the general body of knowledge of a community of practice (Collins and Evans, 2007). Teachers' expertise is built in this uncertainty and the different ways that they are resolved would indicate the elements that teachers deem valuable to specialise in.

Specialisation comes from interaction (Collins and Evans, 2007) with and across contexts. The discussion of powerful knowledge (M. Young, 2008, 2011) contested, not the use of contextual knowledge, but its position as organising principle at schools, arguing on the one hand the geographical and structured knowledge, and on the other everyday/ethno-knowledge (Catling & Martin, 2011; Roberts, 2014). The former is concerned with how students can move beyond everyday knowledge. It recognises that schools provide a point of access to specific, organised knowledge that is not commonly found in society (Maude, 2016). The latter addressed the realm of experience as a reservoir.

However, it is noticeable that at the core of both opposing arguments there is the recognition of a dialectic relationship between learner and learning environment: we are shaped by the practices we inhabit, but also shape them. For Edwards (2010) this is not a simple notion of person-context interaction. According to McNamara (2014, p. 17), when faced with binaries such as ‘academic versus everyday literacies or knowledge, ... one also wonders about how and when these forms of literacy overlap’. Both sides of the argument build on a common understanding about the importance of knowledge and shared beliefs about the discipline. In fact, preventing parochialism is an argument that has been regarded in geography education for decades. In Chile, Chaparro (1967) highlighted the capacity of the discipline to foster a comprehensive understanding of the world to better inform the understanding of the local. In England, Marsden (1976) considered this notion as an element of distinctiveness in geographical arguments. In his understanding of geography’s aims he states that:

‘To make us see ourselves as others see us; to break down the stifling parochialism, the boundary thinking, the Us-themism; to create awareness of what location in an information space implies for forming images and judgements. Only when we realise the way in which our collective perceptions are controlled and biased by our locations in streams of information can we begin to break out of the judgemental prison in which we are all trapped in greater or lesser degrees. (Gould and White, 1974, p. 186)’ (Marsden, 1976, p. 92)

Young’s (2008) approach on knowledge has been discussed in geography education stressing its capacity to enable pupils to participate in debates and social spaces (Maude, 2016; Young & Lambert, 2015). In South America, Young’s (2011) argument has resonated with some researchers (Garrido, 2013; Vanzella Castellar, 2011) because it is framed as a matter of social justice, in that all students should have access to powerful knowledge allowing them to navigate the world beyond their local context. In a system where schools are increasingly described as ‘social care’ institutions instead of educational, the argument – regardless of its academically-oriented tone - operates as a reminder of the social purpose of subjects in schools (Stefenon, 2017).

Teachers’ specialisation also involves having something to contribute to the wider community of practitioners (Collins and Evans, 2007). This contributory attribute positions teachers as knowledge

producers but also as knowledge brokers acting as gatekeepers of tacit or local understandings (Araya, 2009; Dolan, Waldron, Pike, & Greenwood, 2016; Stefenon, 2017; Tani, 2011). For example, findings from Catling's research indicated that primary teachers 'recognised that children had geographical knowledge... helping them realise what children can bring to curriculum-making. That the teachers knew the area of the school less well than their children helped them to appreciate that there was other expertise available in the class.' (Catling, 2013, p. 442). According to Brooks (2013, p. 80):

In the realm of considering the "problem" of defining geography for schools, the range of [arguments]... highlighted the importance of context. The translation of academic geography into a viable school curriculum offering is a conscious act that should take into account local significance and preferences. Such an observation is, I would argue, vitally important for the culture of geography education, as it emphasises the role of geography educators to understand the broader influences and preferences prevalent in particular contexts, and to address the influence of geography education in an appropriate way

An outsider's view (Hart et al., 2014; Vincent, 2008) of the communities of subject specialists could consider that school subjects might have a problem developing a relational expertise with the context (Edwards, 2010). But for geography that not might be the case. Geographical thinking has the potential to enable the conceptual and methodological tools to engage with the context. Researchers (Araya Palacios et al., 2015; Miranda, 2016; Roberts, 1995) that have develop this argument, build on Vygotsky's culturalist approach to the phenomenon of learning, considering that 'without the limitations of the restrictive theories from Piaget [...] Vygotsky allows an interchange among people with different capacities' (Souto and Navarro, 2016, p. 24). Lana Cavalcanti (1998) considers that pupils demonstrate 'spontaneous knowledge' in classrooms, incorporating geographical information and ways of interpretation that act as contributory expertise to the geography lesson. Cavalcanti reflects that this is part of the knowledge construction in geography, basing her argument on the humanistic geography of Santos (2017a) and Tuan (2011). According to Downs (2014), dealing with context requires more specialisation than a beginner or veteran teacher could expect. Finally, this element considers the basic understanding that teachers interact with students, colleagues, partners and members of the community (Childs, Edwards, and McNicholl, 2014). This interaction is not only personal but symbolic involving different knowledges in the practice of teaching (Alexandre, 2009).

Framing expertise as a process of specialisation is important for my research, because it points into the direction of how subject specialists' professionalism can inform teachers' understanding of the school context to navigate their professional knowledge landscapes (Brooks, 2016; Clandinin & Connelly, 1995). That is the main reason expertise is not equivalent to experience. The former involves a structured understanding of practice that the simple accumulation of experience does not necessarily generate. This understanding is complex as it involves interaction between different

knowledges and the possibility of contributing to larger debates within enclosed systems such as the ones at schools.

2.2. Towards a geographical understanding of teacher practice

2.2.1. Geography, geography education and geography of education

Geography is a discipline that explores the interaction of physical and human elements to build understanding of different phenomena in space (Massey, 2008). As Lambert (2009) argues, geography is fundamentally about connections. Using this interactional focus of the discipline, teachers' multiple links can be understood in relation to places and scales. A number of papers have incorporated geographical analysis into educational problems, considering its relation with class and school choice (Ball & Vincent, 2007), student mobility and spatial inequality (Donoso Díaz and Arias Rojas, 2012) or planning in the education system (P. Rodríguez et al., 2016). However, teachers have been analysed from a service delivery (Attfield, 2002) or teachers' attainment perspective (Araya et al., 2012), with a resulting outcome that does not incorporate the spatiality of teachers' practice in the understanding of their profession. This problem does not only consider where teachers are working but why they are there, what 'differs from place to place' and how they influence and are influenced by their context (Van Dyck and Van den Broeck, 2013, p. 3).

The spatial approach has its foundation in Geography, Geography Education and Geography of Education as fields that in connection with each other can provide a deeper understanding of the spatial issues related to teacher practice. The early work of Hones and Ryba (1972) within the IGU Commission of Geography Education described the importance of making this connection. They argued that on its own, Geography of Education generally accounts for spatial variations that exist in the provision of resources to educational systems, disregarding teacher situated practice as an observable geographical phenomenon. However, contemporary Geography Education studies have contributed to an understanding of the complexity of teacher practice within different contexts (Brooks, Gong, & Salinas-Silva, 2017; Souto & Navarro, 2016). Furthermore, Geography has moved forward in its methods and concepts (Massey, 2008; Milton Santos, 2017a) potentially providing tools to study the different layers of a locally based and contextual practice of teachers.

Geography could offer a spatial understanding of the relationships that influence a particular teacher practice. This idea is hard to grasp if what is understood by geography is a static description of the land (Arenas Martija, Fernández, & Pérez, 2016). This outdated conception has been influenced by twentieth century geographers holding a Kantian conception of space as a 'container', and Euclidian geometries that bounded the methods of the discipline to measure space as only a distribution of

patterns (Hubbard, Kitchin, and Valentine, 2008). These notions have been contested since the 1960s by relative conceptions of space that have redirected the objects of study of human geography considering that 'activities and objects... define spatial fields of influence' (Harvey, 1969, p. 191). Thus, according to Murdoch (1998), space can only be understood as a system of relations. Space becomes something plastic (Forer, 1978), 'as it continually changes shape and form within differing sets of relations' (Murdoch, 1998, p. 358). These changes in the forms of understanding geographical problems have provided a theoretical platform to observe educational processes that were concealed by their specificity.

Geography education studies have reported on how teachers' geographical experiences are intertwined with teachers' narratives (Roberts, 1995) and their subject knowledge (Puttick, 2016). Martin (2008b, p. 22) considers that the knowledge bases for geographical subject knowledge feeds on 'experiences at school as a learner of geography, formal geographical experiences after school and geographical life experiences'. This can influence teachers in different ways, for example teachers' experiences outside school are related to a community's landscape and places (Marcelo Garrido, 2013). Moreover, shared experiences within departments at schools can create an infrastructure of support for early career teachers (Alexandre, 2016) and the interaction with wider groups can constitute 'cultures of influence' which can shape their school subject culture (Brooks, 2007). These elements describe the relationship of teachers' practices with different sets of knowledges involving its dissemination and interaction with others in different layers of professionalism.

Studies within the field of Geography of Education have developed system-wide approaches to spatial problems (Hones and Ryba, 1972). This subfield considers a '1) geographical examination of factors underlying education; 2) the examination of spatial patterns of educational phenomena; 3) the role of education as a factor influencing the geographical patterns of other social and cultural phenomena' (Ryba, 1971, p. 2). However, according to Brock (2016, p. 14) the closest to a geography of education has been comparative education. This is because comparative studies were 'fixated with only one spatial scale of reference, the national'. The problem is that spatial variation of education is not only from country to country but within countries. That is partially the reason recent studies have incorporated conceptual frameworks that address educational problems at different scales, understanding schools as places in a 'unique articulation of social networks' (McGregor, 2004).

2.2.2. Teachers' spatial practice

A geographical understanding of practice can position teachers at the centre of a network of spatial relations. It has been argued by Brooks (2016) and Clandinin and Connelly (1995) that teachers' knowledge is influenced by different professional landscapes depending on the relationships established or encircling teachers' work. This depends on the spaces in which teachers move beyond classroom practice in his or her professional life, resonating within Henri Lefebvre's (2013) theory on the production of space where 'he examined struggles over the meaning of space and considered how relations across territories were given cultural meaning' (Shields, 2001, p. 230). Therefore, the spatial experience of teachers could be understood as a social product based on the shared construction of meaning which affects practices and perceptions of subjects. This means that teachers' practices can create different spatialities and ways to produce those spaces.

The notion of teachers' professional practice can accommodate the phenomena of spatial practice within its frameworks. This is relevant as current educational systems have stretched the role and responsibilities of teachers at school (Ball et al., 2012). Thus this type of scenario involves mixing the original teachers' professional identity based on the subject expertise (Brooks, 2016) with a different position that requires more active (or reactive) interactions with members of the school or external agents such as examiners, partners or networks (Solem, Lambert, and Tani, 2013). Childs (2014) considers that performing at these many levels is evidence of teachers' multi-layered expertise. Brooks' (2007; 2016) argument resonates on the literature of workplace learning (McNamara et al., 2014) as traditional and progression-based approaches to professional development are criticised in favour of non-linear understandings of lifelong learning that take into consideration the diversity of teachers' professional contexts and knowledge influences.

Spatial practices can be subject to its own forms of geographical specialisation. According to Pumain and Saint-Julien (2014, p. 70) spatial specialisation defines 'a state and a process of geographical differentiation'. This has been commonly studied by regional and economic geography to establish the optimal location of activities and the aptitude of a region to host specialised functions (Faulconbridge, 2006). Urban geography developed a similar interest in this issue during the 20th century to characterise the relationship across different city districts from peripheral areas to the centre considering transportation issues and the function of different neighbourhoods (Butler & Hamnett, 2007). These studies contributed to the understanding that specialisation can develop naturally but can also be induced by planning or other influences having differentiated phases such as 'initiation, standardisation-dissemination, saturation and, eventually, decline-retraction' (Pumain & Saint-Julien, 2014, p. 72). The processes of spatial specialisation are not homogeneous and can have

different routes which suggests that teachers' practices that digress from its standard form are not outliers but rather expected derivations from a wider school system with different degrees of power and control along its networks

Spatial practice involves a relational view of space which has also been approached by Massey (1991) as 'power geometry'. This involves exploring a networked view of space where local and global are connected to configure particular places. Her approach conceives local interactions as 'constructed on a far wider scale than what we happen to define for that moment as the place itself... [Places] can thus be imagined as articulated moments in networks of social relations and understandings' (Massey, 1991, p. 28). This means that even the most local practices of teachers are interconnected. Therefore, the territoriality of teachers' expertise can be not necessarily defined by proximity but by the extent of its influences which could be remote in matters of distance between schools but proximal regarding their shared experiences.

A relevant aspect to understand spatial practice comes from the multiple notions on networks. Networks are spatial relations that have been understood as 'a set of geographic locations interconnected in a system by a number of routes' (Hagget and Chorley, 1969, p. 5). In education, they make reference to formal arrangements of public and private organisations and agencies, that according to Ehren (2017, p. 367) have been constituted to facilitate collective action:

Typically education networks would include schools and their governing bodies, and potentially also other service providers... These networks are often underpinned by legal structures which formalise the relationships between these institutions. In some cases, a separate governing body is added to the network to coordinate the partnership work and provide support services to individual schools, sometimes even taking over some of the responsibilities and leadership from/of individual schools

However, teacher practice does not fit clearly within this scheme as it forms part of an informal network without structured agreements on collective action (Ehren et al., 2017). Even though teacher education plays a part in disseminating conventional practices (Lam, 2014), part of the knowledge informing teachers' expertise circulates among these networks as a commodity and within each 'knowledge transfer' it changes or adapts to a local context (Faulconbridge, 2006).

Educational networks can lead to different aims but they cannot subsist without a baseline of teachers' expertise. Literature on leadership has emphasised the role of networks and support (Ainscow, 2015; Hargreaves and Ainscow, 2015; Montecinos et al., 2014), but as its focus is on the role of headteachers and the understanding of schools as organisations it tends to neglect the negotiations that teachers do as part of their everyday routines. Galdames and González (2016) have criticised the gap on these issues by incorporating notions of pedagogical leadership that take into consideration the group dynamics of teachers within an enclosed system such as a school or school district.

The notion of negotiation is what didactics and curriculum-making have highlighted as the interaction of knowledges that constitutes teachers' expertise. There is a rich dialogue that could exist between leadership and practice in the way that Brooks (2016), Lambert (2013) and Mitchell (2016) have developed, considering the active role of teachers within their school context. As Alexandre (2016, p. 166) argues:

Geography teachers' professional identity is conceived as a network build around elements that belong to their professional representations, a network that is activated when teachers are confronted with a specific inter-relational context, which requires their identification with or differentiation from the group to which they have to cope with at a specific time and professional circumstances

Studying teachers' expertise in connection with their different stakeholders (Blum, 2012) provides a proxy for understanding the capacity of schools (Saito, 2003). It considers how certain territories have access to particular geographical narratives and knowledges, promoted by mechanisms of support or partnerships among teachers or schools (Hargreaves and Ainscow, 2015). This dynamic also considers the possibility of overlapping territorialities as teachers might have similar processes of specialisation, share the same partners or have a common understanding of what constitutes teachers' practice.

2.3. Territoriality: A geographical understanding

In previous sections, I have argued for the importance of an expanded definition of teachers' practice to better understand the relationship of teachers and their school contexts. This argument implied that geography, as a dimension of teachers professional practice, can encompass the diverse and multi-layered complexities that classroom practices and out-of-the-classroom practices represent as a nexus that teachers traverse on their everyday work experiences (Clare Brooks, 2016; Simon Catling and Martin, 2011). I would like to further elaborate on this argument by incorporating the conceptualisation of territoriality to understand the implications and ramifications of teachers' involvement with their school contexts. Territoriality – in its South American approach – conceptualises space as an epistemology that focusses on transformative practice (Haesbaert, 2013b; Santos, 2017). Therefore, the notion of teachers' territoriality that I will explore in this section concentrates on how teachers' professional practice can develop a spatially grounded understanding that is transformative of the school context. This conceptualisation of territoriality is also meaningful for the context of this study as it helps to add specificity to the understanding of what and whose geography (Lambert, 2017) is at play for rural teachers in Chile.

The interplay between territoriality and territory has been highlighted by several authors (Haesbaert, 2013b; Sack, 1983; Milton Santos, 2017a) as the literature on territoriality is grounded in a narrative of the territory. The differentiation between the two terms is commonly avoided as they are used interchangeably. However, the focus on how people know about space is a powerful epistemic

attribute by which the understanding of territoriality helps to delineate fluid spatial practices and beliefs that should be theoretically distinguished from the ontology representing the territory as a spatial reality (Escobar, 2015; Mansilla-Quiñones and Melin-Pehuen, 2019).

Thus, at this point, let me define what I mean by territory explicitly: it is the space articulated by an agent. The agent explored in this thesis comprises rural teachers. The term 'articulate' indicates an active process of connection to create, weave and network people and place in solidaristic relations around which a narrative is built. When that articulation ceases so does the territory. This working definition is based on the literature on geography education and territoriality to which I will return in the successive analytic chapters. This is because this definition can be challenged by several questions on how teachers can achieve (or not) the position of agent, to what extent spaces can be articulated and how the network of social relations that schools represent are entangled with those spaces.

2.3.1. Territoriality: An epistemology of the South

The relationship between space and teachers' professional practices is neither neutral nor innocuous. In such circumstances, territoriality becomes a powerful conceptualisation to consider how transformative teachers' practices can be, particularly in its form as a spatial practice. Territoriality and the territory that it generates involves a particular spatial relationship that, in its South American understanding (Santos, 2017), has a particular focus on the creation, appropriation and ownership of spaces.

The most common understanding of territoriality in the literature is that it attempts to assert or enforce control. Accordingly, territoriality is conceived as 'the attempt by an individual or group (x) to influence, affect, or control objects, people, and relationships (y) by delimiting and asserting control over a geographic area. This area is the territory' (Sack, 1983, p. 56). This is the conventional understanding that has been developed in comparative studies (Brock, 2016), regional geography (Paasi, Harrison, and Jones, 2018) and studies in political conflict (Delaney, 2005; Ramírez-Miranda, 2014). However, I would like to bring into consideration the critique that the Brazilian geographer Milton Santos (2017a, p. 26) has presented concerning this type of rationalisation, and to suggest a more comprehensive understanding of the matter:

We live with a notion of territory that is inherited from an incomplete modernity and from its legacy of pure concepts – concepts that have travelled through the centuries largely untouched. It is the use of the territory, not the territory itself, that should be the object of social analysis. The territory is an impure form, a hybrid, a notion that, for this reason, requires constant historical revision. What is permanent about the territory is the fact that it is our constant living environment. It is, therefore, crucial to understand the territory in order to avoid the risk of alienation, the risk of losing the sense of individual and collective existence, the risk of renouncing the future.

Santos' (1994) perspective on territoriality describes a social and cultural understanding of space that delineates the collective existence of communities and individuals. He argues that, when approached from the edges rather than the centre, the key notions delineating power and control on territoriality become thinner and blurred. Rather than fixed 'pure' spaces with a single story, as the territories of the nation-states have been traditionally defined, Santos (1994) presents territorialities as cluttered spaces that, in their multiplicity, can represent different forms of livelihood that are hybrid and diverse.

Santos' (1994) understanding of territoriality has been commonly labelled as a form of subaltern culture (Furtado and Furtado, 2020; Gramsci, 1959). However, this typification is misplaced. It is hard to sustain the argument that territorialities are subaltern when spaces in South America are conceived in the public, intellectual and political spheres as territories. This is not just a linguistic caveat. The literature rooted in South American social movements (Herner, 2009; Martínez, 2017; Webb and Radcliffe, 2015) and geography education in the region (Duarte 2017; Garrido 2020; Haesbaert 2013; Pimienta Betancur 2008; Pulgarin Silva and Pimienta Betancur 2015) have highlighted the importance of this conceptualisation as a form of understanding the world that influences the way people experience it as a form of being in space.

Territoriality, then, can be best understood as an epistemology of the South. It encompasses multiple concerns about 'how we can have knowledge of reality' (Sumner, 2011, p. 93), the importance of space to define it, as well as a consideration of the criteria for what counts as knowledge, particularly in contexts where the ways of knowing are subject to dispute and implicit hierarchies of knowledge.

Boaventura de Sousa Santos (2018, p. x) originally argued for the idea of an epistemology of the South as 'a set of inquiries into the construction and validation of knowledge born in struggle, of ways of knowing developed by social groups as part of their resistance against the systematic injustices and oppressions caused by capitalism, colonialism, and patriarchy'. Although Sousa Santos (2018) and Santos (1994, 2000) have built their theories on similar decolonial approaches (Cusicanqui, 2020; Mariátegui and Guerrero, 2016; Mignolo and Walsh, 2018), the conceptualisation of territoriality has its own merits as a unique understanding of space in South America.

I have drawn from Milton Santos' (1994) theory to understand teachers' spatial practices because of its relevance to capturing the particularities of the territoriality produced as part of an (a) incomplete modernity that takes the form of a (b) hybrid space in permanent transformation and (c) strongly entangled with living environments. 'Miltonian' scholars (Albagli, 2017; Gallo, 2017; Haesbaert, 2013b; Lucas Melgaço and Prouse, 2017) have suggested that these three aspects are underlying issues in the

conceptualisation of territoriality in South America that encompass the coexistence of a complex multi-layered cultural matrix. I will further expand on these issues to translate how instrumental the conceptualisation is to the context of the study but, primarily, to respond how, based on a different epistemological approach, the theory on territoriality can help us to understand how teachers can construct spatial transformative practices.

The theory on territoriality is a geographically informed understanding with multiple parallels. Massey (2008, p. 9) has identified a similar spatial phenomenon in her own studies on multiplicity: 'the sphere in which distinct trajectories coexist; as the sphere therefore of coexisting heterogeneity'. Territoriality as a conceptualisation of space is equally relational and, consequently, always under construction. As Massey (2008, p. 9) continues 'precisely because space on this reading is a product of relations-between, relations which are necessarily embedded material practices which have to be carried out, it is always in the process of being made'. Similarly, in geography education, Brooks (2016) observes how teachers can operate in more than one culture simultaneously. Cultures, according to Brooks (2016, p. 31), can influence teachers' practices but teachers can 'operate within a culture without necessarily adhering to all of its practices and ideas'. Multiplicity, simultaneity and territoriality coincide in how diverse spatial practices can be and, in particular, how heterogeneity operates as a baseline attribute rather than an exception.

Yet, the Miltonian understanding of territoriality is particularly significant because, even though territories can contain a multiplicity of places and livelihoods, they are tensioned with the historically-rooted idea of belonging to a subaltern West. Hence, Santos' (1994) notion about an 'incomplete modernity' as peoples' expectations of fulfilment are set on a cultural horizon of development established elsewhere rather than in their own homes. Carvalho Arruzo (2017) has argued that this tension has influenced the literature on territoriality by delineating territories as spaces in dispute – a conceptualisation that describes the challenges of irresolute coexistence as the single existence of heterogeneity invites confrontation.

Santos' understanding of territoriality as part of an incomplete modernity has been a pivotal argument in South American critical geography to challenge the problems of coexistence in social systems that have inherited the uniformity with which European universalism conceives space (Deleuze and Guattari, 1996). Territories are, then, considered disputed spaces not because of differences in their planning and control but because of cultural dissonance between those who inhabit them and those who attempt to control them (Mansilla-Quiñones and Melin-Pehuen, 2019). However, Santos' critique on universalism has been further developed because these notions are not considered exclusively European but part of a form of spatial reasoning that homogenises world spaces in narratives of

uniformity and compliance (Haesbaert, 2013b). These narratives can be exploited by local powers or even by those 'dominated' that seek to contest control of a territory.

Furthermore, a central idea about territoriality that accompanies the critique on universalism is that the territories, as products of multiple spatial interactions, are hybrid spaces (M. Santos, 1996): 'impure', as Santos proposes. This notion of 'impurity' has multiple connotations and is deeply rooted in South America's history as a form of knowledge of each other's identity. There is no single identity but multiple ones as entire national cultures in the region are built based on extensive processes of miscegenation (Gándara, 2017). This is highly controversial as it involves cross-cutting issues with the appropriation of indigenous territories. If, for some researchers, peoples' miscegenation involves the integration and coexistence of cultures, for others it is the abandonment of culture and renouncement to ancestral territories (Mansilla-Quiñones and Melin-Pehuen, 2019).

The conceptualisation of territoriality also captures the complex notion of inhabiting a living environment, where territories can be considered living entities and the people within an entangled part of those spaces. According to Escobar (2015), this approach to the territoriality that people in South America produce is inherited from the ontological relationship that indigenous people have with the land and, therefore, rooted as a historical construct in how the present relationship with the land is seen in the region. A different historical interpretation comes from Miller (2020), who argues that the interaction between humans and the land was imprinted in the new republics that emerged after the wars of independence as nation-builders engineered identification with the nation through appeals to the shared natural environment:

The identity of an American human being was no abstract construct confined to a particular bounded territory, but a lived experience 'drawn from his head, his heart and his arm', at once specific to a certain place and generalisable to all other lands that had similarly been forged through the epic struggles ... The land was seen not—or not only—as a resource to be exploited, or as a source of aesthetic inspiration, but, above all, as the site of a historical commitment to a certain kind of society based on political freedom and social justice. This is why it is hard to understand the history of national identities in Latin America in terms of the conventional distinction between patriotism (as benign loyalty to the land of one's birth) and nationalism (as promotion of the interests of a particular nation-state) ... The Cartesian divide between nature and culture had little significance in this context, a point of view that anticipated the recent position of radical geographers that 'it is impossible on the ground and in the streets to see where nature ends and culture begins' (Miller, 2020, p. 163).

Santos (2000) argues for a nature of space in which society and nature are part of the same totality. This argument of interconnectedness establishes a relationship with a non-human geography (Hitchings, 2004) that resembles Latours' (1993) ideas in 'We Have Never Been Modern' that blurs the boundaries between nature and culture in an effort to analyse the construction of systems that kept them apart on the first place. These systems are criticised by Santos (1986) as part of a faulty form of 'knowing the space', as he identifies it. Santos argues that science and technique, i.e., the processes

of producing scientific and applied knowledge, have conceived territories in South America as 'useful spaces'. That is, being part of global networks of valorisation that have disarticulated indigenous and creole forms of knowledge, and their adaptations to specific environments.

The three underlying issues on the understanding of territoriality are counterintuitive for a literature that traditionally has focussed on the issues of power and control over a territory (Sack, 1983). The significance here is not that the Miltonian approach neglects those two core components but how it understands territoriality as something achieved rather than being held or owned indefinitely. Santos' (1994, 1996, 2000) focus on the 'use' of the territory reflects not only South America's history of struggle, but also its creative capacity that comes from the multiplicity of stories that are entangled within its space. Accordingly, territorialities can be conceived as transformative pathways, trajectories describing consistent sets of possible futures that might generate a material product upon the conformation of a territory.

Thus, the challenge for my research is to consider teachers' practices from this perspective. How it delineates a particular conceptualisation informing teachers' practices and how a perspective on the territorialities of teachers can bring together spatial aspects of their practices that do not appear to be related.

Margaret Roberts' (1995) paper on her interpretation of the English national curriculum was influential in my research, and into adopting territoriality as a conceptualisation that can add an input to our understanding of teacher practice. She debates the gap between the intended curriculum and the actual curriculum in schools; however, it was her almost rebellious portrait of teachers as curriculum-makers that caught my eye. This led me to thinking that compliance and autonomy can coexist in teachers' practice and that those practices were not exclusive to Chilean teachers. It is in this sense of 'entropy' about the diversity of teacher practices that the Miltonian approach to territoriality can contribute to education while schools' contexts are sought to be transformed by different actors resulting in incomplete identities (Danaher et al., 2014b), conflicting ideologies (Rawling, 2004) yet well-regarded spaces by those who inhabit them every day (Catling & Tanner, 2020).

The theory on territoriality can also contribute to defining the spaces of professional practice in which teachers can deploy their expertise, particularly in contexts of accountability (Mitchell, 2020), where administrative and examination requirements (Alexandre, 2016) seem to have disabled action rather than enabled it. We know that teachers react in these contexts with practices of resistance and compliance (Ball et al., 2012; Brooks, 2016) but what I assess the theory on territoriality might render

useful is to indicate how teachers might act in professional spaces that they have made their own or have purposefully created as part of their practice in schools.

If we see professional spaces as interrelated cultures of influence that coalesce for teachers into practices and definitions of the profession, as Brooks (2016) has discussed, it is important to consider how teachers traverse those spaces that demand different processes of membership and belonging. Thus, territoriality conceptually enables us to pose difficult questions for research as to what extent teachers embody their role as professionals and are prepared to let other agents enter into their professional knowledge landscapes (D. J. Clandinin and Connelly, 1995) or how teachers may lend some of their own authority (G. Biesta, 2018) to agents that seek to influence their school contexts. This is where it is relevant to consider teachers' territorialities as creative and transformative practices that can make school contexts their own territories.

In the following section, I will focus on the concept of territory and its importance for the literature as a portal to the territoriality of locally-based agents and the multiple understandings and practices that are involved. The literature on territoriality is grounded in a narrative of the territory that places a strong focus on this concept. Therefore, I will approach territory as a threshold concept (C. Brooks, 2018; Meyer and Land, 2005) because it integrates and bounds the understanding of territoriality and its different processes into a constructed spatial object.

2.3.2. Territory as a threshold concept

If we understand territories as spatial objects, it is important to consider that in their multiplicity as products of a particular territoriality, territories have a specificity defined by the agents that create them. Therefore, the challenge for research is to understand the ability of teachers to transform school contexts into school-based territories. In this framing, the focus is on how teachers as agents can produce (or not) a particular professional space.

The application of the term territory in educational phenomena might appear as an effort to reinvigorate the spatial turn that has been happening in social sciences (Soja 1989). Indeed, this research is an effort to incorporate a spatial dimension in the understanding of teachers' profession. However, in the use of territory as an analytical concept I share Smith and Katz (1993) concern that the 'spatial turn' has operated at a metaphorical, rather than a real level.

The reassertion of space, however, has enabled the study of social, political and cultural phenomena in different fields to incorporate a sense of diversity in otherwise linear narratives. This expansion has also come with a cost of epistemic closure and underlying political issues. As Smith and Katz (1993, p. 67) argue 'it is increasingly evident that these metaphors depend overwhelmingly on a very specific

and contested conception of space and that they embody often unintended political consequences'. Territory is no exception of this and its use comes with a warning: the term enables the understanding of political relations in space but its use is underpinned by a politics of the territory. Perhaps even more in South America, where its plastic application to explain spatial issues, is attached to the revindication of territory and identity politics associated to exclusionary and essentialist discourses on both sides of the political spectrum. Territory is a powerful spatial category that needs to be studied rather than being revindicated.

In the process of the production of space (Henri Lefebvre, 2013), the territory that the territoriality produces can indicate a particular construct in teachers' spatial experiences. If we unpack Lefebvre's theoretical provocation on the representational nature of space using the Foucauldian approach that is dominant in critical geography studies on territoriality (Escobar 2015; Garrido 2020; Mansilla-Quiñones and Melin-Pehuen 2019), territory can be conceived as the category of space that involves the use of power (Foucault, 2009), bringing understanding to teachers' positionality in their restricted spaces of action (Ball, Maguire, Braun, & Perryman, 2012).

However, teachers' territorialities, using Santos' (1994, 1996, 2000) perspective, posit a particular problem in the conceptual relationship between territoriality and territory as to how teachers' agentic practices might produce school-based territories as part of their professional practice. There are two strings to unravel in this argument. On the one hand, it is necessary to understand professions (M. Young and Muller, 2014) as sources of territoriality in which a teacher's professional role in the space of the school context enables the development and deployment of agency. On the other hand, schools are institutions, commonly understood by critical studies (Bourdieu and Passeron, 1979; Cal, Cabrol, and Méndez, 2019) as spaces of reproduction of social inequalities. Thus, it might seem contradictory to study them as spaces that, even as a part of school systems and normative frameworks, can enable agency and action.

The argument concerning teachers' school-based territories can be considered disruptive within Latin American critical thinking (Ramírez-Miranda, 2014; Scannone, 2008), but it is important to consider territory as an analytical category that can be applied in multiple settings, with education being one of those settings. The interconnectedness highlighted by Santos between territoriality and territory delineates a spatial process that is more than locational randomness but a meaning-making process that in-service teachers can produce once situated in their school contexts. Several authors agree (Duarte, 2017; Herner, 2009; M. Santos, 2000) that territoriality and territory operate as a single entity in which territoriality, as a set of practices and understandings, can have a spatial manifestation in the

form of a territory that is inhabited or possessed. When an agent intervenes in one (Duarte, 2017), both are affected.

In the interplay between territoriality and territory, it has been argued by Herner (2009) that territorialities can exist without the object territory but the territory cannot exist without the idea that takes form in its territoriality (Guattari and Rolnik, 2007). An exemplification of this relationship in education can be found in the work of Freire and Giroux (1985). They propose that teachers, particularly those in contexts of political upheaval, can generate political-pedagogical projects. They argue that it is necessary to consider teachers' political positioning on the education that the community intends to develop (Guedes, Silva, and Garcia, 2017, p. 581). The project, in this case, is a collective construct that aims to meet the demands of the school community with teachers' pedagogical proposals. These are everyday practices that are re-signified with a purpose and delineated depending on how invested teachers are with the project. Thus, the extent to which teachers define how the project involves a form of being in space can influence the development of a particular territoriality, as a pathway to experience the situated practice (Lave and Wenger, 1991) that will shape a school community.

The notion of project delineated by Freire and Giroux (1985) is relevant to link Santos' (1994) theories of territoriality in education. However, this approximation comes with a warning in relation to how invested teachers can be with a particular project of education. The epistemology of difference delineated by Santos (1996) might be turned into a politics of territory as it seems that only by generating a territoriality throughout a project of education, teachers can be later enabled to take possession of a territory that could be owned. This can possibly neglect the simultaneous territorialities that exist in space and narrow them down to one self-contained territory that is handled by the agent-teacher in their school context. In this argument, territoriality and territory might be tensioned as part of the same spatial entity but it is not clear in the literature on territoriality to what extent each construct informs the dynamics of the other. In the case of teachers, this rationale might require further exploration on how the perceptions and knowledge about the context might prefigure the everyday practices of teachers in their schools. The interplay between territoriality and territories involves, then, the very important question of how teachers know their pupils, how teachers read their school context, and how this might inform their practices.

A final consideration in the territoriality-territory interplay concerns the relative autonomy with which territories exist as geographical realities. Escobar (2015) argues that territoriality has been perceived in relation to an ontology of the territory that can exist independently from the agent that produces its meaning. This derives, to some extent, from its characterisation as a non-human entity but also

because of its attribute as a geographical reality. Social systems in complex societies (Durkheim 1997; Nogué and Wilbrand 2010; Weber 1947) might generate the same type of ontology in which the spaces of education, such as schools, have a deeply-rooted attribute that transcends individual experiences and constant curriculum changes (Rawling, 2004).

In this regard, the ontology of a school-based territory is important to consider since it is something that teachers' professional cultures (Brooks, 2016) might interact with rather than perceive it as an imagined geography (Hammond, 2019). If schools and their communities can be characterised as spatial entities, it is relevant to further inquire about the extent to which teachers are influenced by its existence, particularly the extent to which teachers might hold essentialist interpretations of their school contexts and the geographical determinism (Lewicka et al., 2019) that might be associated with its relative location.

2.3.3. Language traditions: disambiguation

The identification of territories as spatial entities requires further conceptual disambiguation. On the one hand, how the literature on territory establishes locally-based agents and, on the other hand, how similar are the conceptualisations of place and agency in the Anglosphere and the South American perspectives of territory. The former involves an issue of differentiation between territory, scale and the locale in which territories are not to be considered local studies, although the literature might induce that misunderstanding. The latter builds on the shared understandings that different concepts might capture and how they can inform the understanding of teachers' territories.

In this section I explore how territory and place are significantly different categories of space. I have concluded that they are part of the same family of geographical perspectives that understand human activities as part of multiple re-scaling processes. Nevertheless, despite their commonalities, they describe different spatial phenomena. In this exploration, I also highlight how 'agency' has been insufficiently considered by South American perspectives and, as such, may become a suitable interlink to highlight the significance of the Miltonian notion of territory for researchers in both the Anglosphere and South America.

The 'local' has become a significant trope for characterisation of spatial issues in South America. Sociological studies (Leff and Bastida, 2012) on political ecology have associated territories with local areas in conflict and the domain of local movements of resistance against environmentally damaging projects. In 'territorializing life', Leff (2021) has characterised territories as a route to acknowledge the geographies of dispossession in the region, and the role of local actors in the processes of reclaiming rights and defended the reasons for their struggle.

Although this line of studies recognises the influence of other global spaces on local places, the scalar interplay tends to be considered from a top-down approach. Furthermore, the local and the territory's overlapping use in political ecology aims at a notion of local self-sufficiency. Territories aim to be autonomous subsystems that can survive in a global landscape that is perceived to be dampening people's livelihoods. As Leff and Bastida (2012, p. 55) argue:

At a global scale, it is possible to conceptualize the core-periphery relations ... The displacement of the environmental burden to the periphery may jeopardise development opportunities in the periphery due to pollution-induced health harms and degradation of natural habitats, which often provide subsistence means for local rural populations.

In this line of studies, the local has been portrayed as part of a binary in which it is configured as a space neglected by national and global systems whose structures are beyond the reach of the local agents, particularly those in peripheral positions. This is an argument that has circulated in South America since the 1970s, when it was first developed by CEPAL, the UN mission to develop Latin American countries (Prebisch, 1984). This argument has evolved into narratives of the local that can inform misleading notions of agency (Barrera, 2007), particularly in perspectives that highlight the apparent autonomy of local actors and that are recognised because of their situated practice (Lave and Wenger, 1991) or because of their capacity to link locality and belonging (Arhem, 1998), regardless of impeding structures.

Political ecology, like other decoloniality studies (Cusicanqui, 2020; Mignolo and Walsh, 2018), tends to interpret the existence of local territories as the generation of subaltern cultures and its movements of resistance which situate the practices of 'subaltern' subjects on the edges of a political or knowledge system. This suggests some limitations to the study of territories in its applications to a school context as curriculum-making (Lambert 2017; Young and Lambert 2015) practices might pose as the implementation of hegemonic cultures.

However, the study of territorialities does not imply a normative idea of what territories should become. By studying territories, local agents become relevant for research, not because they are local but because of what they make of the local. This is regardless of how peripheral or diverse local agents could be in their respective spaces. Harvey (2002) has questioned the status of local studies as well as they neglect the influence of agents and institutions in other spheres rather than the local:

The formation of institutions that can mediate the dialectic between particularity and universality is, then, of crucial importance ... Such institutions are often organized territorially and define a sphere of action at a particular spatial scale. The intermediate institutions typically take the militant particularism at work at the local grassroots level and use it or translate it, both theoretically and in terms of material action, to construct a workable spatial order facilitative of certain social processes ... If the organization at the grassroots is fragmented, badly articulated and partially instrumentalized by a higher power, then that higher power can easily prevail. But then the danger exists of the hollowing-out of local

institutions by the gradual demise of processes of solidarity formation at their base (Harvey, 2002, p. 207).

Santos (2000) and Haesbaert (2013b) argue for this multiscalar complexity of the territories, in which territoriality is built on the ideas of multiplicity (Haesbaert, 2013a; Massey, 2008) as a phenomenon grounded in the interconnectedness with multiple spaces. This approach is significant regarding the exploration of territories in educational settings as it acknowledges the possibility of agency for people that are not necessarily in positions of power but can certainly generate influence in their own territories and other larger systems.

Territories are not prescriptive in their form or features. Therefore, the relationship between teachers' territoriality and their territories can be related to multiple professional phenomena; either teachers' skilled understanding of pupils' context and place (Massey, 1991; Roberts, 2014); the extent to which they can bring together pupils' experiences alongside curriculum aims and in conjunction with their subject expertise (Brooks, 2010), or their capacity to articulate different 'knowledges' to different stakeholders to achieve educational purposes (Blum, 2012; R. Brooks, Fuller, and Waters, 2012; Pokorny, 2013). All of these different actions involve everyday local practices of teachers with space that can result in the creation of multiple and diverse territories.

A territory can involve a wide range of spatial objects from complex social systems (Berkowitz, Zoro, and Trujillo, 2020; Duarte, 2017; Foucault, 2009; Williamson, 2017) to an individual's corporeal experience (Butler and Athanasiou, 2013; Marchese, 2018) as the embodiment of their relationship with space. The relevance of highlighting the role of the agent in the production of a territory is that it can operate across these multiple experiences and practices as overlapping layers that are held together by an agent; i.e., these practices are contingent on teachers in individual school contexts but can be creative and transformative on different scales. Everyone is at some point a local in their own restricted spaces, but the connections between those different locales are what is relevant for a geographical analysis.

As teachers' territorialities might define the extent of their agency, they also have a role defining its limits. For example, the *field* (Bourdieu, 1993) of a group of teachers can be separated from others by means of their expertise in the subject (Brooks, 2010), their tacit local knowledge (Polanyi, 1983) or the influence of other agents (Ball et al., 2012; Klocker, 2007; Marsden, 1997; Rawling, 2004). In this understanding, the notion of territory makes something abstract, such as teachers' ideas about knowledge and the practical knowledge of the context, something tangible and interchangeable in a spatial network of interactions.

The ecological approach to teachers' agency is a relevant point of comparison with the notion of territoriality. Priestly, Biesta and Robinson (2015) argue that agency is the result of an interplay between individuals' capacities that have been achieved – not possessed – and the environmental conditions that are assembled by the interaction of cultures, structures and relationships. They consider that 'teacher agency should not just focus on the capacities of individuals ... but should, at the same, time pay attention to the factors and dimensions that shape the ecologies of teachers' work' (Priestley et al., 2015, p. 3). This definition suggests that territoriality and agency are related and even complement each other since the focus is not the individuals but what make the actions of those individuals meaningful within a context. The interactions that individuals achieve in this context is relevant in both a territorial and an ecological understanding.

The ecological approach, however, offers a more direct critique on the overwhelming presence that the scholarship on 'structure' has on any conceptualisation that involves the relationship of individuals with their larger communities and any social or natural systems (Priestley et al., 2015, p. 5):

Our use of the notion of 'agency' should not be understood in sociological terms, that is, in terms of a long-lasting discussion within the field of sociology as to whether human action should be understood as the result of the agentic capacities of individuals, structural forces or a combination of the two. This so-called 'agency-structure' debate is a discussion about the nature of sociological explanation

The structural bias that is presented in several studies about territory (Barrera 2007; Paasi et al. 2018; Pimienta Betancur 2008; Rimisp 2020) reveals one of the main weaknesses of the concept. On the one hand, there is its epistemological amplitude, which involves neglected definitions of what is space and its implications for individuals' practices. Sociological and political studies (Delaney, 2005; Paasi et al., 2018) tend to signify territory as a static space that has no significant influence on the practices or power struggles that happen on its surface. On the other hand, critical studies are an important source of territorial studies (Ramírez-Miranda, 2014), which are generally informed in the region by Marxism and materialist analyses. The results are interpretations that highlight essentialist notions of territoriality or over-reliance on procedures of causation to analyse the influence of structural processes, like capitalism, on very diverse geographical phenomena. There are examples of critical geography studies (Haesbaert, 2013b) that have been able to overcome those limitations, particularly those regarding indigenous territories (Garrido, 2013; Mansilla-Quiñones & Melin-Pehuen, 2019), given the attention that researchers have to pay to the delicate and multi-layered practices that indigenous people deploy on modern societies.

However, it is important to consider that agency in South America is rooted in a notion of postcolonial struggle that at the interface of territories and power struggles can conceptualise violence as a possibility of action. In the studies of territoriality, the thinking of Guevara (Martinez-Saenz, 2004) and

Fanon (Srivastava, 2010) have been revisited, in which transformative practice in Latin-American critical thinking might not be a diverse notion but a very fixed one. 'The task that Fanon sets himself is the gaining of self-respect through revolutionary anti-colonial violence, where violence for the colonized native is a form of self-translation, the act, the grasping of agency' (Young, 2020, p. 146). Transformative practice in South America can be situated at the core of the conceptualisation of territoriality but it can also be easily informed by revolutionary thinking (Martinez-Saenz, 2004). On the issue of violence, territories might become a space in dispute but they also involve a territoriality, the prospect of what is fought for, the political project that mobilises people and the society that will arise. Here, it is important to remind the reader that I have drawn from decolonial thinking as a source for the literature on territoriality in South America. However, this research should not be considered on these lines as it aims to build a geographical understanding that can critically examine what it takes to build a territory and not the politics of territory that can often be quite reactionary and exclusionary.

The relationship between space and agency echoes Milton Santos' (1994) notion of *used territory*, which is an invitation 'to consider geographic space not as synonymous with the territory, but as used territory, [which] is both the result of the historical process and the material and social basis of new human actions' (Lucas Melgaço and Prouse, 2017, p. 18). Here, Santos' consideration of 'used territory' suggests how people use territory to be in space i.e. to exercise their territoriality. This understanding of 'being in space' is a core idea in the notions of territoriality but absent in the ones of agency (Campbell and Mannell, 2016; Danaher et al., 2014a; Gleadle, Cornelius, and Pezet, 2008a; Klocker, 2007), even when an ecological approach is accounted for as well (Priestley et al., 2015).

Albagli (2017, p. 35) understands this as a hybrid notion of space. She reflects that these relations are part of a 'geography of flows', not one of fixed and discrete objects. This conceptualisation of geographical interactions helps to 'consider the power of each agent to use a given territory in accordance with his or her specific set of interests' (Gallo, 2017, p. 93), and that this is something I have taken into consideration when understanding the relationships that teachers establish with others in the form of spatial interactions and networks within and beyond their own schools.

The networked notion of space describes the importance of teachers' agency. The challenge in exploring a network is understanding its own hierarchies. As Santos (2017a, p. 28) has argued:

The networks constitute only a fragment of the space and the space of a few. Today, the territory may be formed by both contiguous and networked places. However, ... they are the same places, the same points, but which simultaneously contain different functionalities, perhaps divergent or even opposite ones.

The notion of 'used territory' redirects the understanding towards its people. It is in this understanding of territories as living spaces that the practice of building a territory is meaningful. A territory involves

the relationships that bring spaces together as part of a networked collective existence where people and agents can coexist (Escobar, 2015; Mansilla-Quiñones and Melin-Pehuen, 2019).

It is relevant to highlight that the concept of territory (Garrido 2009; Santos, 2017) has had a similarly rich theoretical development in South America as the term place (Massey 1991) in the UK. Both concepts sustain similar points regarding the existence of a networked notion of space and the situation of social agents in a scalar interplay between local and wider spaces. However, studies using territory as an approach (Boisier 1990; Donoso Díaz & Arias Rojas 2012; Paulsen et al. 2012) differ from others because they emphasise the agency (Klocker 2007) of social actors as they have the capacity to articulate spaces and the contested nature of that space in relation to other social actors.

The differentiation between place and territory as a degree in the achievement of agency is relevant but not exhaustive. In establishing how places are created, Cresswell (2015) recognises some prominent similarities with the Miltonian conceptualisation of territory, particularly in his use of examples of 'regionalization' in Britain. He emphasises how the process ranges from how political identities are conceived in different scales to how claims that build in identity politics (Simon, Piché, and Gagnon, 2015) have the power to fabricate entire regions. The former identifies how the 'sense of place at the national scale can coexist with or be replaced by alternative ones' (Cresswell, 2015, p. 142). The latter, using the example of activists in Wessex, considers how they 'could make a claim to having a historical existence with its own set of place-images and would, therefore, be more "real"' (Cresswell, 2015, p. 144). The similarity with the construct of territory, then, is not in its final product as a spatial entity but in the process of its construction:

So the complex entanglement of history and geography that goes into making "place" does not just occur at a cozy local level. The way of knowing what is "place" is also enacted at the scale of the nation and the region ... those who wish to construct relatively large-scale political entities cannot simply draw lines on a map and produce them from nothing. They make concerted efforts to give these territories histories and identities in order to make them more place-like and, therefore, more intelligible to their designated populations (Cresswell, 2015, p. 144).

Cresswell inadvertently links the two terms in this argument as the concept of place, focused on meaning-making processes, works in tandem with the organisation of meaning produced in the territory. There is a subtle difference here that will be relevant to further explore in this research as to how territories can be shaped as a meaningful collection of multiple places in which they are bound within an intelligible spatial entity, as suggested by Cresswell (2015), and how territories can be much more connected with the aspect of managing space as a result of the process of clustering multiple places.

The aspect of management is absent in the Miltonian literature on territoriality; however, it can contribute to an understanding of how territories are sustained, particularly on the edges of a system

where different perspectives of spatial organisation can be found (M. Santos, 1994). I suggest that the management of a territory can resemble the construct of governmentality. In *Security, Territory and Population*, Foucault (2009) generates this concept as an effort to understand the rationalities underpinning government in which its practice— or self-conduct – is described as something that each society arranges differently but which has been seized by the modern nation-state. If examined from a spatial perspective, governmentality is about the political means that enable the government of society, clustering spaces through institutions and norms that are not exclusive to a single entity such as the state.

Therefore, the multiplicity of places that the territory seeks to manage can operate as a networked layer other than the one of state government but with the same capacity to exert influence over its members. As Massey (1994, p. 156) argues: ‘each place is the focus of a distinct mixture of wider and more local social relations’. This has multiple implications to the work of teachers because it suggests that in the relationship between place and school-based territories, there is room to conceive everyday spatial practices that oversee how systems – including school systems – can readjust themselves, particularly in the interplay between different scales, and how this type of practice is not restricted to the leadership role (Galdames and Gonzalez, 2016; Hargreaves and Ainscow, 2015) within institutions and schools.

Furthermore, the perspective of a school-based territory managed by teachers contributes to contesting the prescriptive understandings of school communities. Community and place are two close conceptualisations that tend to be used together in educational research (Oyarzún, 2020b; Riley et al., 2018). According to Legorreta (2017), the community has been understood in education and political philosophy as a form of belonging, linked to a shared sense of essence, value or structure. However, territoriality, as a spatial theory, contributes to the unravelling of the apparent unity with which communities are imagined (B. Anderson, 2006). Schools are unique because of the interpersonal relationships that are woven by their members every day, but they are not autonomous entities that exist in a vacuum.

Schools are workplaces (Childs et al., 2014; McNamara et al., 2014) filled with everyday routines and regulations but they can also contain a layer as the domain of teachers’ professional cultures (Brooks, 2007; Brooks, 2016). The domain of a profession over a space defines a territoriality that can be observed as a way to self-conduct (Foucault, 2009) in different places, such as doctors in hospitals, lawyers in courts of justice and teachers in schools. Membership to these places requires a code of conduct and, according to Brooks (2016), the relevance of a profession is that it has a specialist body of knowledge and a strong ethical code, Both of those features are key in how they work with the

particular story and identity of each individual teacher. Teachers' professional practices are complex constructs that operate at different levels in what Kemmis (2014, 2019) calls practice architectures:

In practices, individual will, individual understanding and individual action are orchestrated in collective social-relational projects like teaching children to read... On the other hand, people's individual and collective participation in practices is prefigured and shaped by the *practice architectures* characteristic of the practice; that is, the cultural-discursive, material-economic and social-political arrangements present in or brought to a site... these sayings, doings and relatings hang together intersubjectively in the project of a practice. (Kemmis, 2014, p. 33)

Brooks' (2016) and Kemmis' (2014) arguments on the multi-layered complexity of professional practices can be considered to be the building blocks of a school-based territory, particularly when the territory is sustained and managed by teachers that achieve that position through their professional role. Biesta (2020, p. 113) has argued for a similar focus on professions as they are characterised 'by an orientation towards human well-being. This already reveals that professional action is never merely technical'. Thus, it would be relevant to further explore how the knowledge base of the profession (Brooks, 2016; Young & Muller, 2014) enables teachers' roles at schools and the extent of its dialogue with the multiple definitions of professionalism and teachers' professional action that can be deployed in each context.

It can be suggested that when the domain of the profession is disputed by different territorialities, its practice architectures (Kemmis, 2014) become less the territory of a profession, and might become the domain of a different rationality. In times of late-capitalism (Mitchell, 2020), this can be even more difficult as neo-liberal rationalities leave professionals with restricted access to resources or decision-making authority which, in turn, disables their ability to sustain the rule of professional criteria. In this context, Biesta (2020) suggests that teachers might have lost schools as the place for education as teaching has been mistaken as a process of 'learnification' that is simply the production of measurable 'learning outcomes'.

In this grim context, the similarity between place and territory can become even more important as it strengthens the soundness of these two theoretical constructs to explore spatial practices in education. In particular, how their common feature, as processes that can create space, can show how transformational spatial practices can be shaped by teachers within the boundaries of a profession.

The collaboration between Doreen Massey and the Brazilian geographer Rogerio Haesbaert is key to understanding the mutual coexistence of place and territory. For Haesbaert (2013a), place, especially from the perspective of Doreen Massey's cosmopolitan London, can be defined as 'processes' that 'do not have to have boundaries, in the sense of divisions which frame simple enclosures'. They also 'do not have single, unique "identities"; they are full of internal conflicts' (Haesbaert, 2013a, p. 148). Thus, it is important to consider the process of producing territory in a similar way, which, given the history

of South America, involves a series of movements of territorialisation where both territory and territoriality are accommodated beyond simple divisions and static notions of space:

The de/reterritorialisation movement ... much more than the simple construction of well-bounded and stable territories is, in fact, a way of recognising that, in its variable multi- (or even trans-) territorial character, this process is always present and remade. De/reterritorialisation is also, at different levels, a type of 'being in-between' or an activation/production process of distinct territorialities – that means entering into a game of multiple identitary situations and multiple relations of power. To have consciousness of this multiplicity and know how to 'play' with the diversity of situations generated by de/reterritorialisation processes is strategically fundamental to the political action of these groups (Haesbaert, 2013a, p. 155).

The processes of territorialisation indicate that the territories are spaces that are permanently under construction. This spatial construct has been studied as an 'ontology of the territory' (Mansilla-Quiñones and Melin-Pehuen, 2019), in which historical processes that are associated with past territorialities (deterritorialised) can be replaced, claimed or reorganised (reterritorialisation) into a new territory. Thus, the challenge to understand teachers' creation of spaces is to explore three distinctive elements that form a territorial entity: territoriality as a pathway, territory as a spatial object and territorialisation as a process that identifies the spatial arrangements that, at any given historical moment, has been produced within a particular territoriality.

Even with this rich conceptual development, the use of the concept of territory in education has remained within the frame of the school curriculum. Here, it is relevant to highlight that, as a school content, territory is a term that appears in the majority of curriculum guidelines of South American countries (Brooks et al., 2017). However, even with recent efforts trying to link territories and curricula with a powerful knowledge perspective (Garrido, 2020), and territory and leadership in school administration (Berkowitz et al., 2020), the use of the concept of territory as an analytical category in the educational literature, particularly as part of a geographical dimension of teachers' professional practice, is unclear.

Teachers, like other professionals, play a particular role in society as keepers of specialised knowledge that enables them to perform actions to the benefit of larger communities. However, the issues that teachers' territories manage are related to the knowledge infrastructure that supports their practices. In professional organisations, such as the Geographical Association, Alan Kinder has advocated for the need to incorporate this type of view as 'we are entering a period of greater complexity within the education system. Authoritative sources of advice and support have largely been replaced by a patchwork of formal and informal networks' (GA 2017). This is a problem that cannot be solved in the curriculum arena only; even with innovative ways of understanding knowledge and curriculum-making (Bladh, 2020; Solem et al., 2013; Young & Lambert, 2015), the implementation of those innovations

takes consistent efforts that do not always become a reality. As Morgan and Lambert (2018, p. 43) incisively argue:

Knowledge and the future school is effective at arguing for an educational space in which schools and teachers might imagine a new knowledge-centred curriculum agenda. However, in doing so, it tends to put into the background the complex histories and politics of school subjects and their relationship to the wider social relations of schools and culture. There is urgent work to be done to involve academics, policy-makers, teachers and parents in a wide-ranging discussion about the role of knowledge in the future school.

The exploration of teachers' territorialities may contribute to the understanding of spatial practices in education as an approximation that takes into consideration the territory of a profession (M. Young and Muller, 2014). To what extent teachers exercise agency or how teachers make use of a specific set of skills in their work settings are questions that require an understanding of spatial practices. In an educational context where schools and teachers are commonly neglected, the notion of territoriality might constitute a platform for teachers to find a space for their own projects of education and everyday situated practices.

2.4. Research questions

The research questions build upon previous discussions identified in the literature review in which the study of teachers' territoriality is framed as part of an interplay between space and profession.

How do teachers' professional practices influence their school contexts?

The first research question is based on the discussion of teachers' practice within geography education, considering the issues of curriculum-making (Brooks, 2013; D. Lambert & Morgan, 2010; Mitchell, 2017) and geography didactics (Araya, 2005; Araya Palacios et al., 2015; Arenas-Martija et al., 2017; Souto & Navarro, 2016), as well on teachers' professional practice that builds on educational theories that seek to further comprehend the full extent of teachers' practices (Arenas Martija et al., 2016; Brooks, 2007; Morgan, J. & Lambert, 2018) and the extent to which teachers conceive the different efforts and the expertise they develop in multiple school contexts as part of their profession. Expertise (Brooks, 2010; Collins & Evans, 2002, 2007; Wynne, 2003) is taken broadly here to allow teachers' diverse understandings alongside the ones directly related to the notions of subject specialism and situated practice. This research question then explores the need for an expanded definition of teachers' practice, incorporating issues of professional practice and context as part of their daily routines.

How can in-service teachers develop a spatially grounded practice that is transformative of the school context?

Teachers' practice has been conventionally understood from psychological or sociological perspectives but not necessarily from a geographical approach. This research question will explore the extent to which teachers' practice can be geographically understood and the contributions of this perspective to help identify teachers' paths in gaining expertise in their own local contexts.

Territoriality (Haesbaert, 2013b; Santos, 2017) is a specific geographical notion that could provide rich understandings of the work of teachers if framed as an issue of professional practice (Brooks, 2016). As previously stated in the literature review, territoriality is a rare conceptualisation within education. However, the understanding on teachers' professional practice bridges the gap with spatial theories that recognise space as more than location. This is important in a context of accountability (Mitchell, 2016) and standardisation of practices (Alexandre, 2009), as it is pertinent to ask what is the role of teachers in their school contexts. Furthermore, in what ways teachers navigate their professional knowledge landscapes (Clandinin & Connelly, 1995), especially in relation with their knowledge base and how teachers might see their contribution to society in their role within schools.

3. Chapter 3. For a methodology on teachers' territorialities

The study of teachers' territorialities can be described as a wicked methodological problem. It is a phenomenon that incorporates two apparent contradictory constructs, a representational nature of space (H. Lefebvre, 1991; M. Santos, 2000) in relation with an ontological spatial object that is the territory (Castree, 2003; Escobar, 2015). For this study, both constructs are incomplete on its own, but together can delineate a distinct form of 'being in space'.

I draw from interpretivism (Huberman and Miles, 2002; Miles, Huberman, and Saldaña, 2020) and case study (Denzin and Lincoln, 2012; Given, 2012; Albert Mills, Durepos, and Wiebe, 2010) approaches to explore the phenomena of teachers' territorialities. The research was designed as a multi-site case study (Bishop, 2012; Stake, 2005) to emphasise the spatial component on teachers' practices as well as to bring in geographical diversity within the structure of the data and the subsequent data analysis of the research.

The research questions explore teachers' practices as a professional and geographical phenomenon that is studied considering the knowledge of teachers and their actions articulating a territory, particularly in rural contexts. In this chapter I will delineate the assumptions underlying this research in order to explore such object of study. I will first explore the implications of the research questions in the construction of an object of study that defines the research approach to later consider the research design that could best inform the research questions. I then move to discuss the particularities of the data collection and analysis developed in this research design.

3.1. Teachers' territorialities phenomena

The identification of teachers' territorialities as a phenomenon (Butt, 2020; Groenewald, 2004) brings front and centre the need for a descriptive language to characterise the interconnectedness with which in-service teachers organise their work and how that organisation is underpinned by teachers' spatial understandings of the school context. The complexity of this relationship entails a qualitative (Uwe Flick, 2018; Huberman and Miles, 2002) exploration to describe the phenomena of teachers' territorialities and comprehend the meaning and practices in their own particular contexts. The operative word here in relation with the phenomenon is 'describe' (Groenewald, 2004) which requires 'culturally derived and historically situated interpretations of the social world' (Butt, 2020, p. 214). An approach that draws from interpretivism, and to which I subscribe to the extent of its contestation to the achievement of objective and unbiased research. These perspectives are important since the multiple combinations of practices and territorialities that each teacher might be able to elaborate in their particular contexts requires open and context driven approaches.

The multiple combinations of practices and territorialities that each teacher might be able to elaborate requires context driven approaches. I will conduct an interpretivist research conscious of that issue in relation with the diversity and hybridity with which spaces can be understood (Milton Santos, 2017b). Theoretically, territoriality develops a direct link with issues of power and control which would have made discourse analysis (Foucault, 2009; Miles et al., 2020) a better suited choice on this regard. However, I choose to work from a more open perspective because discourse analysis would over rely on the assumptions of power to explain the spatial phenomena and the reality in which teachers participate. A more interpretivist approach enables to take into consideration 'culturally derived and historically situated interpretations of the social world ... interpretivism holds the position that the achievement of objective, unbiased research is unattainable in the social sciences' (Butt, 2020, p. 214).

The way phenomena are described is important. Chapter 1 tells the story of an opportunistic encounter I had with a rural teacher that built meaningful relationships with his students, their family background and environment. Teacher-community relationships were his forte as he deployed his professional expertise to tailor both the curriculum and local resources to accommodate his teaching to the needs of his students. However, the interconnectedness of the different practices that the teacher displayed that day, suggested as well a lack of capacity on my side to described the extent of his actions. By characterising the teacher's classroom practice as 'locally driven' I was inadvertently but actively assuming a reductionist stance on his work. From the point of view of the classroom his practices might seem local but from the perspective of the profession I was neglecting an entire relationship between space and practice. However, I wonder if this can be the case for other teachers and to what extent they would achieve a relationship with their profession that enables practice rather than constrain it.

However, the importance of teachers' territorialities became evident during the late part of the analysis for the research of this thesis. Initially I was aiming to identify the characteristics of different territories, but in the process of analysis, territoriality grew out of the unit of analysis and became a relevant category, not so much as conscious explicit statements by participant teachers, but as Roberts (1995, p. 189) argue in a different context, as 'an implicit underpinning of what they said, planned and did'. Territoriality influenced the way teachers framed the borders of their teaching, and, in the cases that teachers were able to implement their own vision of education, their territories.

Lambert has been clear about 'the dangers of research endeavours in education that 'drift' towards solving issues that have a school-wide, often generic, focus' (cited in Butt 2020:32). However, this risk of epistemic closure is not such, I argue, if the focus of the study is about the importance of situating teachers' territorialities as a phenomenon in the interplay between geography and education.

The scope of the research on teachers' territorialities then, is the exploration of teachers' professional practices. I will take a broad view on professional practice, as Brooks (2016) argues, encompassing the work of teachers in and beyond the classroom:

The classroom is the main site of teachers' work, and is the key location for their interactions with students and colleagues. But professional practice can also recognize that some of teachers' work takes place outside the classroom (Clare Brooks, 2016, p. 6).

The multiplicity (Massey, 1994) and simultaneity (Clare Brooks, 2016) with which teachers' professional practice can be characterised is an important aspect of this conceptualisation:

teachers may also be active in their subject communities and their school communities, and within other networks. Teachers may have perspectives on school policies, education policies, and research from both education and subject fields that can also influence their practice. Being a professional may spill over into their personal lives (Clare Brooks, 2016, p. 6).

Previous research has highlighted the importance of teacher-community relations (Gibson and Blandford, 2005; Kerr, Dyson, and Gallannaugh, 2016) to improve students' attainment (OECD, 2005) or the relevance of teachers' leadership (Hargreaves and Ainscow, 2015) to conduct schools as organisations that operate on a local level and embedded within school systems. However, the conceptualisation of teachers' professional practice works on an interconnected level (Clare Brooks, 2016; Kemmis, 2014, 2019) that embraces the uncertainty that might come with working with students and people of diverse backgrounds in multiple settings.

The focus on practice adds a layer of complexity to the research because the interplay between space and profession is not about perceptions only (Berger and Luckmann, 1967; Tuan, 1990), is about asking teachers what they do, which has multiple implications for research regarding the verification of those practices but, furthermore, about how teachers understand what involves 'being a teacher', what teachers think they do (J. Maxwell, 2018), how and why they do it and the extent of efforts they are willing to undertake to fulfil the expectation of professionalism, as Brooks (2016) argues:

This view of professionalism is that of a dynamic idea of 'being a teacher', a process that is being constantly made and remade in everyday actions and interactions. This perspective is summed up in Barnett's (2008) description of 'being a professional', drawing upon Heidegger's notion of being. This is not a static notion of being, suggestive of a state of arrival, but a dynamic sense of continual engagement (Clare Brooks, 2016, p. 6).

The literature on territoriality has established how a territory is not prescriptive in its form and characteristics (M. Santos, 1994). What may very well work in one context for a particular teacher, might not be applicable to another. Thus, to fully explore this phenomenon the challenge for research is to explore the processes through which territories are produced, in particular the processes of deterritorialisation and reterritorialisation (Haesbaert, 2013b) that the literature has delineated as part of spaces that have their own historicity and are always under construction.

The advantages of approaching the spatial processes of producing (Haesbaert, 2013b; H. Lefebvre, 1991) professionally based territorialities is that of capturing the dynamic sense of 'being a professional'. The complexity of these processes entails a qualitative (Uwe Flick, 2018; Huberman and Miles, 2002) exploration to describe teachers' practices and comprehend its meaning in their own particular contexts.

3.2. An ontology of the territory

In the study of territoriality, the ontological considerations for the research are particularly important. These are the 'assumptions about the nature of reality. Put simply, is the object of research, ... which is a part of social reality, something that exists objectively (that is, external to the individual)' (D. Lambert, 1995). Territory, as a geographical feature could be considered in this way as a separate spatial entity (Escobar, 2015; Mansilla-Quiñones and Melin-Pehuen, 2019) with which case teachers in this study have been able to relate with instead of being a solely the outcome of their individual deliberation.

The object that is conceived here is the territory, that, as we are going to explore in the analysis chapters, has been inhabited but also enacted by the case teachers. This complex relationship speaks of a recursiveness on the study of territorialities (Haesbaert, 2013b; M. Santos, 1994). Territory and territoriality coexist in a dialogic relationship that produce and co-produces the reality that teachers experience on their everyday practices. Some of the challenges for research on this regard have been previously outlined as issues of critical realism:

a key feature of critical realism is the combination of ontological realism (the belief that there is a real world that exists independently of our perceptions and constructions) with epistemological constructivism (our understanding of the world is inevitably our own construction; there can be no perception or understanding of reality that is not mediated by our conceptual 'lens') (J. Maxwell, 2018, p. 18).

The argument of critical realism becomes important in the study of teachers' territorialities because ontology and epistemology tend to be presented as separate aspects of research (Groenewald, 2004). However, the boundaries are not so clearly defined when territorialities are explored for research (Lucas Melgaço and Prouse, 2017). Even though I draw from critical realism in this matter, I would not situate this research as critical realist as the ontological problem seems to be present in other approximations to spatial theory as Massey (2008) argues for the case of place and DeLyser and others (2009) for qualitative geography research.

The discussion of ontology in geography has been relevant to seek clarification in the definition of spatial entities and contest common-sense geography as implicit knowledge structures (Couclelis,

2010). This understanding, however, places emphasis in the formalisation of an ontology for geographic data modelling (Longley, Goodchild, Maguire, and Rhind, 2015) which differs from the open and context-driven focus of this research.

These considerations have also become relevant in geography education amidst of the discussions on powerful knowledge. Here, an interesting elaboration comes from Huckle (2019), who argues that powerful geographical knowledge is critical knowledge underpinned by critical realism. An assessment that is critical on the influence of social constructivism as a form of idealism that has overcorrected on representations to the expense of other realities. In his understanding, this discussion has been able to address the neglect of subject knowledge and follows Lambert and Morgan (2010) as they have 'advocated an approach to school geography based on education for geographical understanding and pupils as knowledge producers' (Huckle, 2019, p. 15).

However, contrary to what Huckle (2019) has argued, my approximation to professional practice is not driven by an initial and fixed notion of specialist knowledge. The exploration of the influence of teachers' practices in the generation of territorialities in this research considers a similar approximation to teachers as 'knowledge producers' hence, the characterisation of teachers' deployment of knowledge as expertise. Butt (2020, p. 209) has argued that this link elaborates on a process of 'discovery of what knowledge 'is', and the systematised forms of acquisition and communication that make it meaningful in a context. If we are to understand that teachers' territorialities can produce school-based territories, it is important to consider how in that elaboration, knowledge is produced, and to some extent, reified as part of the construct of the school as a professional space.

Powerful knowledge (PK) (M. Young, 2008, 2019; M. Young and Muller, 2014) and its application in geography (Solem et al., 2013; M. Young and Lambert, 2015) have highlighted the importance of knowledge in teachers' practices. However, I have cautiously approached these notions, mainly because PK has a research programme that is prescriptive of the knowledge relations that are present in teachers' everyday interactions. Although the theory on PK acknowledges the existence of other forms of knowledge, it suggests the prominence of disciplinary knowledge over others. Bladh (2020, p. 217) has reflected on some of this concerns:

Strongly normative-prescriptive models run the risk of manipulation, indoctrination and the transformation of education into a technological-instrumental profession. A non-affirmative educational theory is critical for recognizing and questioning existing knowledge, values or ideals without affirming them.

In the approximation to teachers' territorialities the analysis chapters have evidenced the relevance that teachers place into subject knowledge but as pockets of knowledge (Collins and Evans, 2002) that

are in a fluid relationship with the multiple elaborations that teachers make and can be epistemologically valid if modern and rationalistic perspectives are avoided (Wynne, 2011). This is important as in the literature on territoriality, the issue of ontology is connected with spatial knowledge.

The ontology of the territory has emerged in the literature amidst indigenous land reclamations that are connected with a form of inhabiting the land by not necessarily possessing it. Knowledge, Cusicanqui (2020) argues, exist in connection with the land but, given the colonial history of the region, it has been intentionally neglected as part of the spatial entities in the world. Hence, the importance of understanding the processes of de/reterritorialisation as people do not cease to belong to a territory that it is not owned.

In education, this suggests that teachers and schools can exist without conforming territories. Thus, becoming part of the school does not necessarily involve being part of a spatial experience. The studies on the processes of deterritorialisation (Arruzzo, 2017; Cusicanqui, 2020; Mansilla-Quiñones and Melin-Pehuen, 2019) have approached this as an acknowledgement of the geographies of dispossession, where a representational notion of territoriality coexists in lands occupied by other rationalities (Milton Santos, 1979). Therefore, the experience of living, producing and safeguarding knowledges have been disentangled or deterritorialised (Haesbaert, 2013b). The analysis chapters will further explore these tensions on detail providing examples on how teachers' territories have been deterritorialised or even not develop in itself as a spatial entity.

3.3. Multisite case study

A multi-site case study was designed to explore the research questions that focus on teachers' professional practices and the complexities to identify how teachers' practices produce territories in different school contexts. This design facilitates that 'the same unit(s) of analysis or phenomenon is studied in light of the same key research questions. (...) Hence, as well as eliciting site-specific findings, a multi-site case study has the potential to enable valid cross-site syntheses and replication claims' (Bishop, 2012, p. 2). Each case teacher is studied separately (Stake, 2005), on a one-case-one-teacher basis. Its multiplicity aims to the diversity of connections that teachers engage with as part of their professional knowledge landscape (Clandinin & Connelly, 1995) across different school contexts.

The research approach considers case studies (Hesse-Biber, 2010) to elaborate an in-depth approximation to teachers' practices in each school context. In-depth, here, is understood as establishing the different levels of meaning-making in a thick description (Geertz, 2000) associated with the activity of teachers' practice. As we have examined in the previous chapter, the

conceptualisation of teachers' practice involves an expanded definition that accommodates the different roles, identities and spaces through which teachers deploy their expertise beyond classroom practice which requires an open and context driven approach in line with what is understood as thick description:

The aim of thick description is not to provide a definitive account but to venture a suggestion regarding the range of possibilities. In case study research, thick description is an essential part of the process of determining what the particular issues, dynamics, and patterns are that make the case distinctive. It is one of the foundational building blocks in constructing knowledge and interpreting the interwoven strands of signification that comprise the fabric of human understanding. (Albert Mills et al., 2010, p. 943).

Case study concentrates on the distinctive attributes of a particular case which for Miles, Huberman and Saldaña (2020, p. 943) 'encouraged to pay attention to matters of history, context, and physical setting that are typically the focus of attention in thick description'. According to Stake (2005), the description is not about all what is in the site of the study but what is significantly meaningful in the context of the case. Case studies are particularly powerful to give voice to the views and stories of research participants mediated by the interpretative lens of the researcher.

The focus on teachers' practice for this research make case studies a pertinent approach as I will explore teachers in their everyday settings. The case study approach enables an approximation that considers multiple layers of data (Denzin and Lincoln, 2012) consistent with the complexities of teaching in a particular context. Thus, it is possible to account in one single case, identified as the rural teacher, multiple meaning-making spaces and activities.

Conventional multisite case studies approach their multiple participants with the purpose of increase the generalizability of the study. However, by using multisite case study I aim to emphasise the spatial component on teachers' practices as well as to bring in geographical diversity within the structure of the data and the subsequent data analysis of the research.

One of the primary purposes of conducting such multisite studies is to escape what Firestone and Herriott (1984) have called the "radical particularism" of many case studies and hence to provide a firmer basis for generalization ... the possibility of studying numerous heterogeneous sites makes multisite studies one potentially useful approach to increasing the generalizability of qualitative work (Huberman and Miles, 2002, p. 183)

It is important to highlight that by using a multisite case study approach I am not aiming to generate a comparative study of the teachers' practices in a particular site. It does add robustness (U. Flick, 2007) to the study by generating multiple layers of data for each case. However, this is not with the purpose of associating a specific practice with a particular profile. The aim here is to capture the

heterogeneity of the case teachers by searching sites that will provide variation or different spatial configurations.

The focus on rural teachers on this research involves that the spatial variations for the multisite study might be bounded to a specific characterisation of rural space, however, I am taking a broad approximation to rurality (Woods, 2011; Woods and Heley, 2017) that takes into account the hybridity (M. Santos, 1994) with which those spaces can be configured and understood. In one of the cases explored for this research, the teachers worked in a school of the peri-urban area of a mayor city but also traversed different rural and urban schools in his weekly routine. Thus, a normative definition of rural would have impede the description of his case.

3.4. Research design

3.4.1. Research strategy

The observation of teachers' professional practices involves the utilisation of multiple methods to explore the interplay between space and profession outlined in the research questions. The strategy employed in this research is to focus on teachers' out-of-the-classroom practices to explore how they deployed their professionalism and, in the process, understand if and how they generate a territoriality that is meaningful within their school contexts.

The challenge for research then, is to adopt a research strategy that enables the exploration of teachers' practices on a wide range of scales – from the classroom to multiple wider communities – without losing the focus of conducting an in-depth study that identifies how meaningful are teachers' practices within their own professional contexts. To this end, I have developed a research that has been conducted as a process of building layers of meaning (Figure 3.1) in which data collection methods are providing different layers of data (Table 3.1).

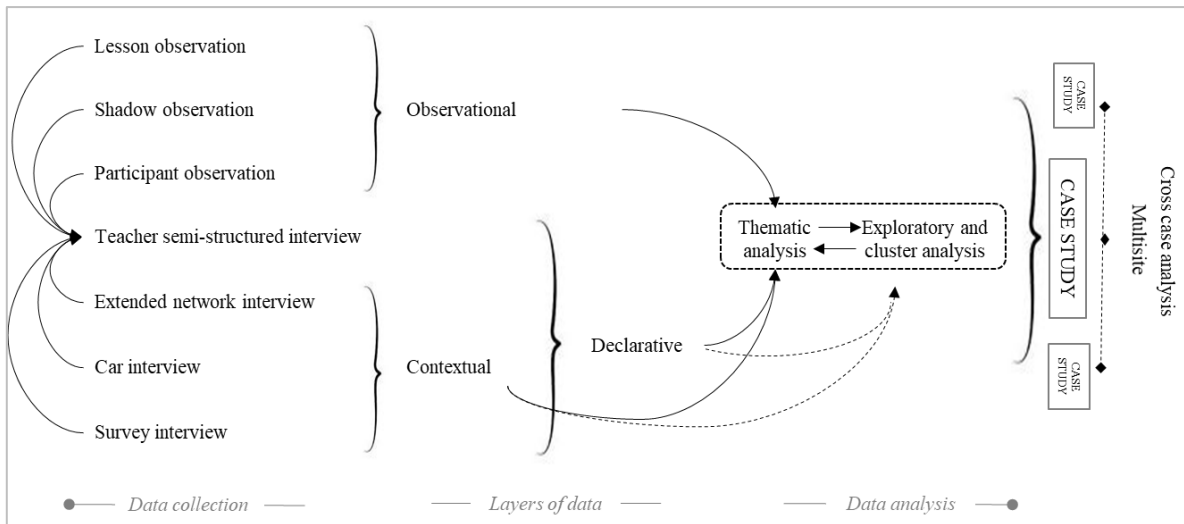


Figure 3.1. Research strategy.

A first layer of data is circumscribed to the observations of teachers in relation with their situated practices. I have considered lesson observations (Eggen and Kauchak 2005; Roberts 2011), shadow observations (Feng and Bray 2019; McDonald 2018) and participant observations (Guest, Namey, and Mitchell 2013) as a set of methods that enable the exploration of teachers every day practices. Secondly, a set of methods that considers teachers' views and the meanings associated to a particular practice, this involves teachers' semi-structured interviews (Flick 2018), car/walking interviews (Evans and Jones 2011) and informal debriefing interviews after each lesson.

Research question	Layer of data	Purpose	Data collection
To what extent can teachers' professional practices influence and transform their school contexts?	Observational	This layer is a set of data that examines the extent of teachers' practices from classroom practice to out-of-the-classroom practice.	Lesson observations, shadow observations and participant observation.
	Declarative	The primary focus of this layer of data is to identify meaning from teachers' understandings on their own practices, and the context of their professional trajectories.	Survey interview, semi-structured interview, shadow observation (debriefing informal interviews) and car interview.
	Contextual	The layer examines teachers in their broad school context, with particular focus on the roles and expertise by which the teacher is recognised in a community or specific place.	Extended network interviews (snowball sampling), survey interview, shadow and participant observation and car interview.

How can rural teachers' practices produce territories?	Observational	This layer focus on the activities that teachers established in connection or influenced by others within or out the school	Lesson observations, shadow observations and participant observation.
	Declarative	The layer examines the quality and content of observed interactions as well as data on previous or longstanding or unobserved interactions and partners.	Survey interview, semi-structured interview, shadow observation (debriefing informal interviews) and car interview.
	Contextual	This set of empirical data maps teachers' networks in the form of interactions and its relevance in a community, locality or specific area.	Extended network interviews (snowball sampling), survey interview, shadow and participant observation and car interview.

Table 3.1. Data collection.

Thirdly, I have explored how teachers' practices are considered by others that have interacted with them directly and are in possession of contextual information about the generation and implications of teachers' practices. I have approach them using a strategy of snowball sampling (Atkinson and Flint 2001) in which I considered teachers' contacts and partners as part of a network of relations that extends beyond the gates of the school and potentially hidden to the researcher during a school visit. Teachers' networks range from in-school peers and colleagues to partners in other schools, organisations and members of the community as well as people in the school administration. I have also incorporated a survey (Ross 2005) of rural teachers in the target province to provide context in relation to other neighbouring schools and school context.

The fieldwork for the data collection was conducted between February and July 2018. I concentrated the full extent of the data collection during this period given the limitations of the travel expenses to Chile. This condition informed the decision of not having a research design that would involve multiple interventions separated by periods of recursive data processing. Instead, this research design focussed on generating different methods that would enable to access the multiple activities and spaces of rural teachers' professional practices. The methods were multiple to ensure the diversity of sources and the collection of different types of data (Stake, 2005).

The data analysis has been divided in four distinctive phases: Two phases of on-site preliminary analysis followed by two phases focussed on the construction of cases. Table 3.2 shows a synoptic view of the data analysis process.

The first preliminary phase of analysis involved exploratory analysis (Uwe Flick, 2013) of the data to ensure that the methods and instruments were fit for purpose and to allow time for modifications before its implementation in the following phase. The preliminary analysis in phase two aimed to case selection (Hesse-Biber, 2010). Using three variables in the survey data available, three teachers were selected. The main variable was teachers' network size were a group of teachers from the upper quartile of the distribution were selected. This group was latter categorised using the location of the schools. Nine teachers fit the selection criteria and eight of them had agreed to participate in the next stage of the research.

After the fieldwork the data was systematised before its analysis. The interviews were transcribed verbatim and case summaries were generated from the fieldnotes and photographs of the observation methods. Paper-based questionnaires data was typed one by one to generate a database that was later merged with the Ministry of Education georeferenced database using the school identification (RBD) as key. This database is accompanied with a codebook that describes its variables and measures.

	Preliminary analysis Phase 1 (Pilot)	Preliminary analysis Phase 2 (On-site)	Within-case analysis	Cross-case analysis (Multi case study)
Data used	<ul style="list-style-type: none"> Referee interview Teachers' semi-structured interviews Teachers' questionnaire Car interview 	<ul style="list-style-type: none"> Province survey (First dataset 40 cases) Fieldnotes questionnaire and feasibility interviews Ministry of Education school registry 2017 Georeferenced school registry 	<ul style="list-style-type: none"> Province survey (Complete dataset 87 cases) Case interviews (21 verbatim transcripts) Car/walking interviews (1 Audio recorded/1 fieldnote) Questionnaire and feasibility interviews fieldnotes Shadow/lesson and participant observations fieldnotes 	
Analysis	Qualitative content analysis <ul style="list-style-type: none"> Data quality Categories 	Exploratory analysis for case selection: <ul style="list-style-type: none"> Participants geographical distribution Teacher network size 	Qualitative content analysis – Thematic analysis: <ul style="list-style-type: none"> In-case open coding teachers In-case open coding extended network In-case axial coding - theme identification Exploratory analysis: <ul style="list-style-type: none"> Descriptive statistics 	Qualitative content analysis – Thematic analysis: <ul style="list-style-type: none"> Cross-case axial coding Selective coding - themes identification Spatial similarity and cluster analysis
Software support	MS Excel	MS Excel Google Earth pro	NVIVO SPSS ARCGIS pro	NVIVO SPSS ARCGIS pro
Summary type	See Appendix for an example	See Appendix for a case summary	See Appendix for an example	See Appendix for an example
Purpose	Preparation phase 2: To develop instruments To identify quality of the data – adjust	To generate contextual information for case selection To contact potential research participants	To systematise information gathered To build cases based on information gathered from different instruments	To generate identify themes that were significant for the case teachers.

	questions and probing To clarify geographical variations To validate preliminary observations with local experts	To generate geospatial data		To theoretically categorise case teachers' themes
Verification	Referee were asked to provide context and verify observations	Research participants were asked to comment on preliminary observations from shadow and lesson observations Survey implemented to provide context for case analysis and control bias in case selection	Two step verification: Crosschecking practices declared by teachers with data from teachers' extended network. Methods triangulation between data generated from different instruments	Methods triangulation utilising different cases and analysis procedures

Table 3.2. Data analysis.

The interview and observation data were merged into a NVivo project and the survey data into a SPSS data set and ArcGIS pro project (Huynh and Sharpe, 2009).

The main analysis approach for this research is qualitative content analysis (Uwe Flick, 2013) which I used to explore text extracting meaning from case teachers' interviews and observations. It involved a process of coding that labelled information generated by the teachers and participants in different stages of case by case and cross case analysis (Stake, 2005).

This was structured using thematic analysis. Braun and Clarke (2006) understand it as method that focus on identifying patterned meaning across a dataset. In this research, it involved a theory and data driven process (Guest, MacQueen, and Namey, 2012). I have expanded about the process of coding for content in the following data analysis section; however, it is important to highlight here that the themes were discovered in the stories of the teachers but themes were also linked to theoretical models and conceptualisations that synthesised the observation and narrative of the teachers.

The process of thematic analysis was accompanied by an exploratory analysis of the survey data. Qualitative spatial analysis has been utilised in the study to identify teachers' clusters of practices and their spatial affinity (Cope and Elwood, 2009). This involved to develop multi-layered representations of the case teachers regarding sets of tasks in the school and in their association with other organisations and individuals.

Clustering teachers' practice (Baker and Yacef, 2009) involved to group spatial units –using ArcGISpro-based on attribute similarity (“similar” in terms of attribute values). It is important to highlight that

this did not involve using pattern analysis as that might indicate that the observed spatial pattern reflects the theoretical random pattern represented by [a] null hypothesis' (ArcGIS, 2018). Conversely, the use of this numerical data has been only use to provide context and not to test hypothesis in the research.

3.4.2. Research process

The research was implemented between February and July 2018 and it was divided in two phases (Figure 3.2). The first phase is the pilot study between February and April that was designed to build on the validation of the research instruments and discuss with experts the fitness of the data to answer the research questions.

The second phase represents the main study and it provides the data that is reported in this thesis. It was conducted between April and July 2018 and it involves three case studies with rural teachers of the Cachapoal province of Chile.

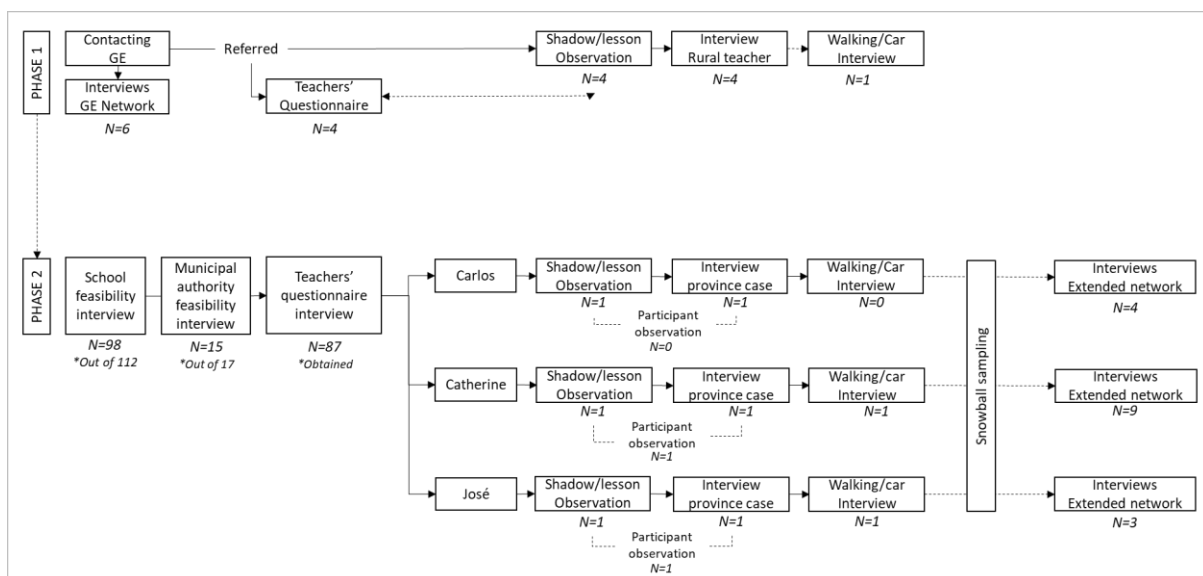


Figure 3.2. Research phases.

The selection and access to the group of participants for the first phase considered teachers referred by an expert who was a member of a community of subject specialists in Chile (Commission of Geography Education-Chilean Society of Geographical Sciences CGE-; Geography Education researcher -GER- or Geography Educator –GE-). Geography teacher educators and geography education experts (CGE) were asked whether they were able to identify a rural teacher with whom they had worked in the past. This provided with a criterion to select research participants that were externally validated regarding their practice. Members of the CGE were distributed across the country providing with geographical variation for this phase of the study. Four centre and south regions of the

country (Metropolitan region of Santiago, Maule, Biobio and Araucanía) were included when conducting this phase of research. Referrers were interviewed to provide with the reasons underlying their endorsement to the teacher, information of the context and checking for observations and quality of the methods.

Once identified, teachers (N=4) were asked whether they could fill in a questionnaire and to be accompanied during one day in their daily routines. The latter involved shadow observation that included lesson observations and participant observations to share experiences in their everyday activities. This allowed for prior identification of key issues and practices as well as to build rapport (Blum, 2012) with the teacher about their teaching practices before the interviews. The information in the shadow information was gathered from informal conversations, debriefing interviews, observations and regular registry through field notes and photographs. Teachers were asked to participate in a semi-structured interview (See appendix 2) –audio-recorded– at the end of the day or following day to explore how teachers described their practices and context. The interview considered a problem-solving item of map reading on the early stages of the research to give teachers the opportunity to explain their views about their school context.

The second phase was conducted in the province of Cachapoal in a central region of Chile. The rural communities in the province have been described as vulnerable population given its socio-economic factors (UNDP, 2008), in a region that has experienced the particular effects of spatial inequality and lack of access to services because of its proximity to the capital of the country (Henríquez, Arenas, Qüense, and Naranjo, 2015), a metropolitan area that in the 2017 census registered ~7.1 million inhabitants in a ~17.5 million people country (INE, 2019). In addition, rural schools in the region account for 34.6% (249 out of 720), which is close to the national average of 30.3% according to Ministry of Education data (2016 Registry of schools).

The second phase used a survey as a method to first approach rural teachers and as a sampling strategy to select the case teachers. The application of the survey also addressed the issues of selection bias that the strategy on phase 1 might have had and provided with the possibility of doing methodological triangulation (Renz, Carrington, and Badger, 2018) during the analysis. The selection of this second group of teachers was defined by their work status as in-service teachers at a rural school in the province. This information is publicly available through the Ministry of Education website (selection criteria will be discussed in the following sections). The availability of the teachers for the study was established in a feasibility interview that was performed prior to the survey implementation on site in each school. In the feasibility interview the researcher personally explained the aims and

methods of the study to teachers and head teachers. If there was interest from the teachers in a particular commune to participate, the feasibility interviews were followed by a formal request to perform the study with the local authority of education in the commune.

The survey applied in the province was previously piloted during phase one. The adjusted questionnaire provided with a characterisation of teachers with focus on their school contexts, practices and professional trajectories (Montecinos et al., 2014). The survey enabled to select case teachers who participated in a multi-site case study that aimed for an in-depth exploration of their practices as rural teachers.

The survey enabled the generation of spatial data that was later used to provide context and add another layer of information into the description of teachers' practices. Locational information was requested of any institution, organisation or partners involved in their initial education, professional development or workplace experiences (Formal and informal networks, partnerships, and individual collaborations). Three cases (N=3) were selected from this process, focusing on teachers that had developed teacher-community networks as part of their work in the rural schools. The selection aimed for geographical diversity of participant teachers considering the location of their schools using the conceptualisation of rural-urban continuum (Woods and Heley, 2017) as a criteria. Once selected, observations and interviews were applied considering the adjustments identified in phase 1.

After the shadow observation and the debriefing interviews with the teachers, a subsequent semi-structured interview was arranged with each selected teacher to elicit information about teacher' practices in the context that was observed. The semi-structured interview applied in the pilot studied was simplified for its application in phase 2 to enable a more fluid conversation with the teachers about their practices and perspectives about the context.

A subsequent teacher interview was designed to elicit further spatial information. It had the form of a participatory walking/driving interview, for which it is argued that facilitates access to 'people's attitudes and knowledge about the surrounding environment. Walking has long been considered a more intimate way to engage with landscape that can offer privileged insights into both place and self' (Evans and Jones, 2011, p. 850). Teachers were asked if they could participate in a route of their own design with places that were significant for their teaching in the school surrounding. This method proved to provide rich data, because interviewees were prompted by meanings and connections to the surrounding environment and were less likely to try and give the 'right' answer. This method was not exempt from limitations. I will elaborate on these issues on the pilot study section.

During the survey, semi-structured and walking interviews, teachers were asked about organisations or people (outside their school) influencing their work in the form of programmes, projects or individual initiatives. This enabled the identification of teachers' extended network of partners and collaborators. Its exploration involved a strategy of snowball-sampling (U. Flick, 2007) that build from the information from all interviewed teachers and from people in the network that recommended others that had a relevant connection with the case teacher. Documental analysis and interviews were considered in relation to the staff of these organisations or individuals. The interviews with teachers' extended network were also designed to verify the practices that teachers declared in their own interviews.

The interviews with the extended network constituted the final stage on phase 2 and were important to describe how teachers created links with other organisations or individuals. Thus, defining the extent of teachers' agency and the influences of the knowledge and expertise that teachers used in the construction of this network (McNamara et al., 2014). The link that each teacher cultivated differed from case to case, which implicated differences in agenda (Hart et al., 2014), positionality (Wynne, 2003) and level of involvement of the teacher and the counterpart (Blum, 2012).

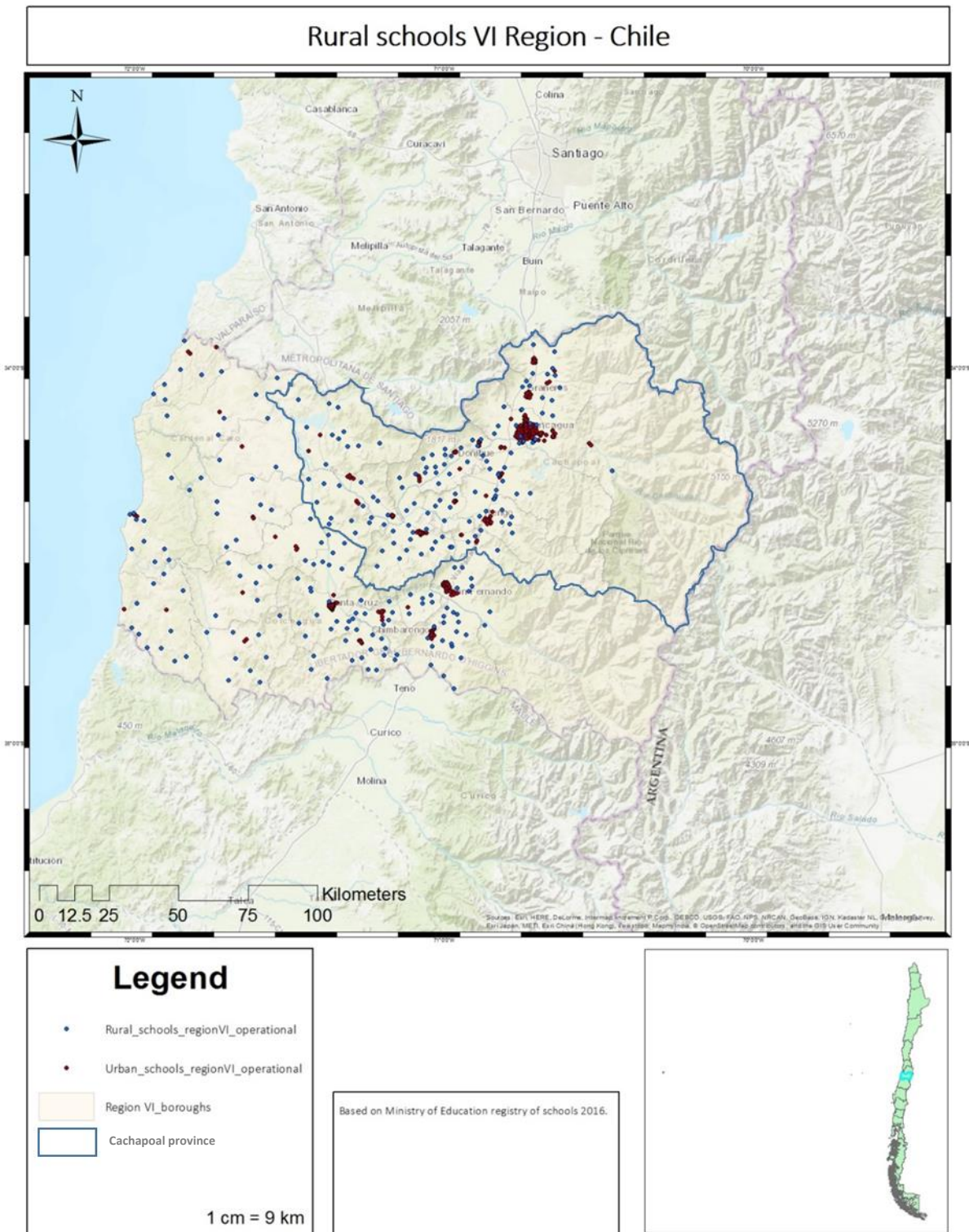
3.4.3. Conducting research in Chilean rural settings

The focus of this research, in the relationship between teachers' practice and their context, delineates the selection of rural teachers in Chile as research participants. It has been previously suggested (Arenas-Martija et al., 2017; Salinas-Silva et al., 2016, 2015) that rural teachers in Chile play a particular role in their communities. According to the UNDP 2008 report, they can be considered as part of the 'rural elite or intellectuality' (UNDP, 2008, p. 135) in rural localities, having a voice in their communities and moving from urban to rural spaces and vice versa.

The identified role of teachers within rural areas combines with governmental programmes that fosters their networked practice. Several groups of rural teachers participate in local professional networks –'Microcentros'– gathering together different rural schools within a particular commune's (Williamson, 2003). According to Ávalos (2004), this has generated a particular professional culture unique for the case of rural teachers which enables the communication and organisation between teachers from different localities. These criteria was considered prior to research, however, the analysis chapters that follow show how these assumptions, accepted by the scholarship on rural education in Chile (Ávalos, 2004; Martínez, 2017; Moreno, 2007), are incomplete or to some extent outdated.

Rural education in Chile account for 7.6% of students, 12.2% of teachers (Appendix 8) and 30.3% of schools nationwide (Appendix 8). However, regional variations are important to address. For example, in the central regions -where the majority of the population in the country lives- nearly a third of schools are rural. In the southern regions (IX and X) more than half of schools are rural, up to 57.3% in the 'Rivers Region' (XIV). The capital region consists of a major urban metropolitan area that accounts for only 4% of rural schools.

The site of the study (Figure 3.3) is the Cachapoal province located in the region of O'Higgins in the central valley of Chile. According to 2016 Ministry of Education data, 23.8% of the teachers and 15.3% of students in the region attend a rural school. Rural schools in the Cachapoal province have coalesced into its own subsystem. 95.65% of the 112 rural schools in the province (Mineduc 2016) are public administrated by the local authorities in each of its 17 communes.



*Figure 3.3. Urban and rural schools in the region.
Source data: Ministry of Education (2016) Centro de estudios.*

Rural areas in Chile are classified by the Institute of Statistics (INE) in relation with urban areas. Localities area considered urban if they have more than 2000 inhabitants or are a settlement of 1000-2000 inhabitants in which 50% or more of its economically active population is involved in manufacturing or services sector. The 2017 census identified that 87.8% of the population in Chile

lives in urban areas. All areas that do not fit in this criterion are defined as rural, which operates as a dichotomic-binary between urban and rural areas in Chile (Cloke, Marsden, and Mooney, 2006).

However, the approach to what is rural in this research is wider than the official definition as it understands rurality (Corbett, 2020; Woods, 2011; Woods and Heley, 2017) as a form of territoriality (Haesbaert, 2013b; Lucas Melgaço and Prouse, 2017; M. Santos, 1994) far more complex than the administrative boundaries that define it in the country.

Contemporary rural areas in Chile participate in interconnected networks of relations. An aspect that the OECD (2014) has identified in socio-economic frameworks that expand the definition of what is rural for the case of Chile in particular, which even accounts for more rural population than the estimated by governmental agencies (Figure 3.4).

The OECD (2014) definition of functional areas depicts a material transformation in rural spaces that are open to globalisation. Latin-American perspectives have been critical on this phenomenon of transformation as the presence of a 'new rurality' (Ramírez-Miranda, 2014; Rosas-Baños, 2013) defines distinctive spaces of transnational 'extractivism' for natural resources and contested livelihoods for rural communities.

The OECD-EU identifies functional areas beyond city boundaries, to reflect the economic geography of where people live and work. Functional urban areas are relatively self-contained economic units, characterised by high levels of labour linkages and other economic interactions. Cities are widely accepted as important generators of wealth, employment and productivity gains. Moreover, large agglomerations are key players of transnational flows and work as essential spatial nodes of the global economy ... functional areas capture the integration of urban and rural territories into a single local labour market based on commuting patterns. It includes both an urban core and a peri-urban hinterland containing strong urban and rural interactions (OECD, 2014, p. 36).

The selected area of study, the province of Cachapoal, is one of the spaces that has been identified by the OECD as a hinterland of spatial nodes and transnational flows in which the 'rural' is intertwined with several layers of social and economic relationships. The province of the study is an agroindustry and mining cluster with a node in the regional capital of Rancagua in which, as Henriquez and others (2015) argue, urban areas are consistently more rural than urban because of its economic activity but moreover, because of its forms of livelihood, history and culture.

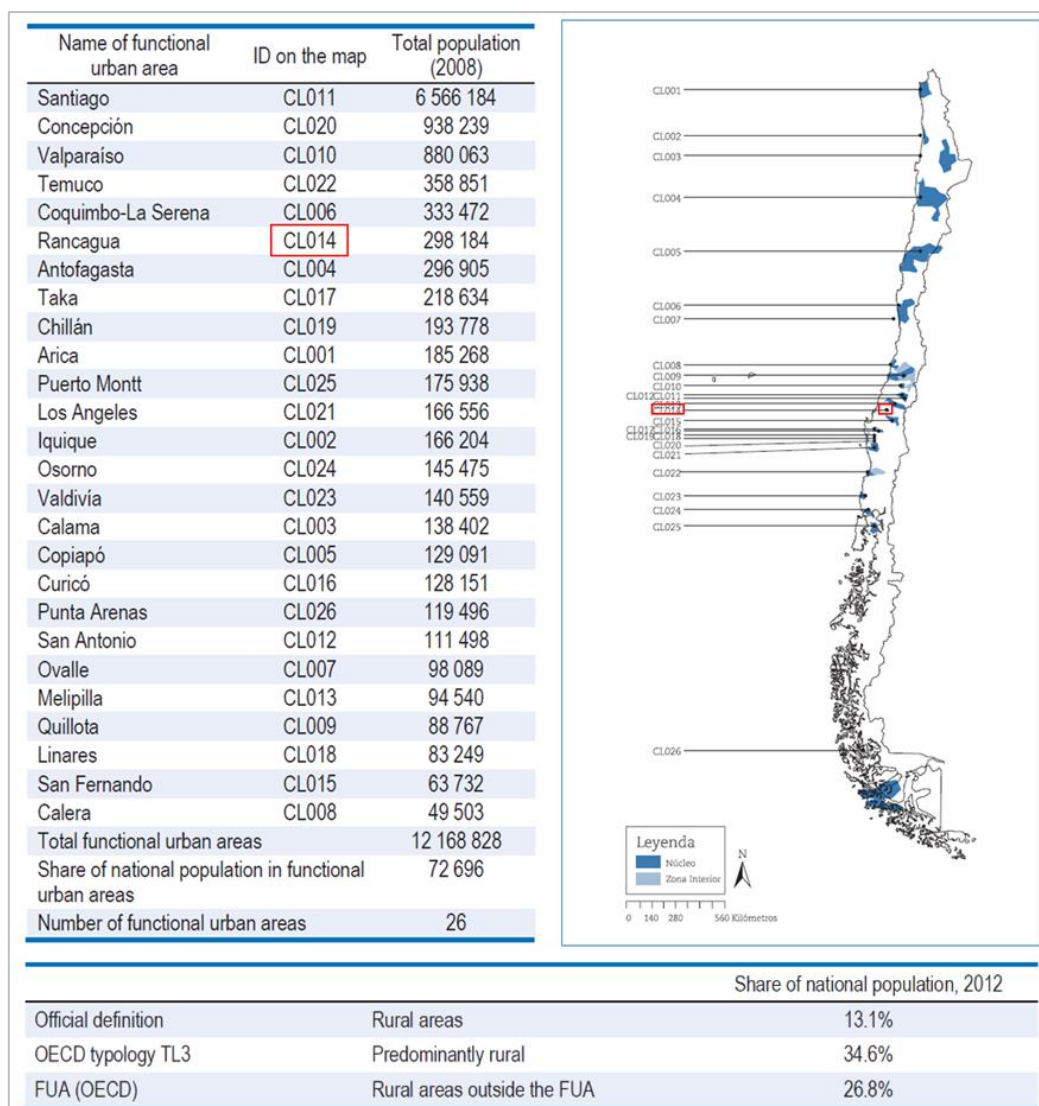


Figure 3.4. OECD functional areas.

Source: OECD (2014) Rural Policy Reviews: Chile 2014, OECD Publishing. Area of study demarcated in red.

3.4.4. Sampling and selection of cases

The research participants are in-service teachers' working in rural schools in Chile. Rural education in this country extends from year 1 (Ages 5 to 6) to year 8 (Ages 12 to 13) which makes it mainly a primary education activity. Teachers' working at rural schools are mostly primary teachers but there might be cases holding a qualification as secondary teachers. Rural schools have different modalities in Chile which includes monograde and multigrade schools. The former involves a one teacher per level or class whereas the latter, combines pupils from different levels in one single classroom due to short availability of staff or reduced enrolment in the area. This type of school can be categorised as well as a single-teacher school in some cases (Ávalos, 2004; Moreno, 2007; Williamson, 2003). However, the case teachers involved in this research reported an improvement in their rural schools contrary to conventional wisdom. Their schools considered teams of rural teachers, access to special funding

programmes and road connectivity that contrasted with previous assessments and challenges previous notions of isolation (Fernando Araya et al., 2012a) in rural education.

The selection of teachers targeted rural History-and-Geography teachers or rural teachers with a background in social sciences. Catling (2013) suggests that teachers with a geographical background have affinity towards environmental and spatial issues, which could possibly suggest they are more aware about the issues regarding spatial experiences providing with further information in this matter. School geography is not a single subject in Chile (See appendix 5), which can be considered a limitation to secure teachers' participation because of their relation with multiple disciplines (Salinas-Silva et al., 2015). However, the national curriculum makes compulsory to study History and geography as an integrated subject in every level of primary education, thus the availability of teachers with experience on these contents extended every school visited.

Three teachers were selected as cases for this study considering the following criteria: a) Personal availability; b) Teacher's network size, and; c) rural geography. The decision was informed by the data gathered in the questionnaire and feasibility interviews.

The first criterion was used to exclude teachers that might be requested to participate in the research by a superior in the school. The point of contact with the rural school was generally the teacher that participated voluntarily in the feasibility and questionnaire interview; however, this was used as a strategy to prevent that the headteacher or local authority would influence the decision of the teacher to participate.

The second criterion was informed by the survey data. It considered teachers that excelled at establishing connections with their communities, partners or other schools. This was measured, in the 2018 Rural Teacher Survey, using teachers' network size: the number of organisations and individuals with which individual teachers had had established contact during their career. A preliminary analysis with a dataset of 40 respondents was conducted to consider the uppermost group of teachers on the third quartile of the participants. The decision was taken during the fieldwork on a pre-designated milestone at the moment when the survey would have been completed by a third (N=37) of the rural teachers in the targeted schools.

This method relies in what teachers declare (Prieto and Lorda, 2012) to be their practices and networks. This possesses validity issues since teachers might have over-reported their interactions with others. Nevertheless, in the complete dataset, the number of teachers that had had established 5 or more interactions with other organisations or individuals outside the school accounted for 14.9% followed by 8% for the group of teachers that had declared 4 interactions. In the post hoc analysis,

this amounted for a total of 20 out of 87 teachers, a number that it was within the expected range of response.

The third criterion was geographical. It aimed to ensure the diversity of the cases considering the localtion of the school where the teachers were situated. This accounted for variation in landscapes and classifications of rurality. Special attention was given to select teachers that reflected the idea of the rural-urban continuum, or the rural-urban gradient, with 'multiple categories ranging from rural to urban, rather than a simple binary' (Woods and Heley, 2017, p. 9).

3.4.5. Pilot study

Phase one involved the evaluation of the pilot study with focus on the validation of the research instruments and how the research design was fit for purpose. All the methods for data collection were taken during phase one which generated the same type of data expected for phase two.

The pilot study was conducted in the previous two months before the main study on the province of Cachapoal. I designed the pilot study to have primary and secondary teachers from different regions of central and south Chile. In general, the methods and instruments operated similarly in different regions, school levels and primary and secondary teachers.

Nevertheless, the pilot study was designed to perform a preliminary exploration of the instruments to test its fitness to generate the information aimed at a particular method or to better respond to the 'hustle' of teacher's school routines. After the pilot study (Phase one) I identified some issues regarding the schema for teachers' semi-structured interview and lesson observation as well as implementation issues with the lesson observation, survey and car interview that required specific adjustments for improvement:

- a. Teachers' semi-structured interview: The questions designed for the teachers' interview provided rich information about teachers' perspectives and practices. However, in its original implementation I incorporated a mapping exercise to elicit spatial data. The task requested the teacher to draw the main features associated with the school on a satellite image of the area. Teachers indicated that they were initially confused about the task that was requested and others suggested that they did not know how to respond, even though, during the interviews they had depicted rich stories about their locality and some of them use those stories in the lessons as examples. This technique was removed in phase 2 to ensure a better flow of the conversation during the semi-structured interview and allow more time for the conversation.

- b. The initial design for the survey involved both online and paper-based surveys. However, after having multiple limitations in contacting teachers by email during phase 1 (and phase 2), I took the decision of dropping the online version and committing entirely to the paper-based survey. I anticipated that this could have happened due to teachers' heavy workload at schools or multiple jobs. Online communications were not effective in generating responses from the rural teachers in the province. I decided to mail letters by post to each school of the province. The letter incorporated schedules for school visits, aims of the research and characteristics of the teachers that could be interested in participating voluntarily. This channel of communication proved to be more effective than emails, phone calls and arrangements with the local authorities. In the feasibility interviews for the survey the letter expedited the communication with headteachers and teachers at the schools and, furthermore, I often perceived that the letter was considered an official document that added gravity to the research. It also enabled better coordination with teams at the schools for planning and to authorise time for a teacher in order to answer the survey interview.
- c. The car interview was a method designed to elicit spatial information (I will further expand on this method in the following section). However, it was particularly complex to implement because it required time availability from the teachers. In the pilot study only one out of four teachers were available to participate in this method and that was only because he had a window between the morning and evening period. Nevertheless, the data generated was extremely insightful as the shifting landscape on the road elicited situated data continually linked to a location. In phase 2, however, recording issues were added. I could not get one of the case teachers' full approval to use the audio recording of her car interview because at certain points of the road we were travelling with some of her pupils from the school. Thus, the only registry available that I have from it are the walking interview transects as well as pictures and fieldnotes. The other two case teachers had to reschedule or cancel due to time availability.
- d. The lesson observations schema had diverse and inconsistent outcomes during phase 1, particularly the module that delineated local information used by the teacher in the classroom. This was partially an error in the design of the instrument because it was aimed to guide the observation of teachers' practices from a perspective of a secondary teacher. Subject specialists had more responses in these modules than primary teachers because the curricular guidelines in upper school levels allocate more time to talk about geography and the locality. However, the schema also considered use of examples, references to places and analogies about the local areas. Few teachers generated any data on that module. I

maintained this instrument during phase 2 as a form to explain and be transparent with teachers about what I was observing. Nevertheless, the shadow observations were a better method to gather this type of information since teachers were more akin to talk about their locality and context outside than inside the classroom.

3.5. Data collection methods

3.5.1. 2018 Rural Teacher Survey

The 2018 Rural Survey contemplated the participation of one teacher per each of the 112 rural schools of the Cachapoal province. 98 schools were visited between the months of March and July of 2018 and 87 rural teachers participated in the study. The data collection involved feasibility interviews to discuss issues of access with the teacher and/or headteachers, followed by a structured interview that would normally last one hour in which the researcher filled the questionnaire. There were exceptions to this procedure in which the questionnaire was received by the teacher and later returned to the researcher.

The research design incorporated a survey to guide case selection and provide a layer of contextual information that captures the scale of rural teachers' practices. It is important to highlight that the application of a survey and its analysis does not involve a quantitative approach in this research, simply put, it is the use of numerical data in a qualitative research. According to Maxwell (2010) the use of numbers is a legitimate and valuable strategy for qualitative researchers when it is used as a complement. The difference between quantitative and qualitative research is defined by their understanding of social phenomena (Maxwell, 2010, p. 477) rather than only use of numbers:

This is the distinction between thinking of the world in terms of variables and correlations and in terms of events and processes ... If participants in a study repeatedly make a particular claim or perform a particular action, presenting this fact in numbers isn't necessarily conceptualizing it in terms of variables, but can be seen as simply describing the occurrence and distribution of the claim or action in that setting or set of individuals.

Furthermore, the inclusion of numerical data does not inherently make the research a mixed-method study. This research relies much more on a local analysis of particular individuals, events, or settings than on establishing general conclusions.

The survey is employed in its full extent as a method that provides another layer of descriptive data. Its use is concentrated in the need to account for the scale that involves conducting educational research in rural settings. The spatial significance of the practices of a teacher in a rural school contest the definitions of localised phenomena as something that is micro. The local in rural areas has a

different extension than in urban centres as the catchment area of a rural school in Chile incorporates pupils from an entire locality divided in different sectors.

Furthermore, the survey aimed to incorporate a layer of data focussed on teacher-to-teacher collaboration. Rural teachers in Chile are conventionally reduced in numbers in their local areas, thus, collaboration – when in place– occurs with the teachers of neighbouring schools or as part of the local teacher association (microcentro) or with other teachers in the borough. However, this type of professional practice was difficult to find and, conversely, I procured more data about teachers' relationship with the private sector and other state agencies. During the survey application in the fieldwork, these early responses made me think that the instrument was not fit for purpose. However, it was not until the selection of the case teachers and in the conversations with them that I realised that I was observing the outcome of a process of transformation in the rurality of a province that involved to teach in globalised export-led spaces that involved the fragmentation of rural communities and its schools. This is not the type of findings that one would like to report but its implications to the professional culture of one of the case teachers is further explored in Chapter 5.

3.5.2. Shadow observations

Shadow observations were implemented as a type of observation technique to follow the actions of one participant teacher during an entire working day from the start of his or her schedule in the morning until the last task.

The use of observations in studies of teachers' practices tends to pre-establish the use of lesson observations (Feng and Bray, 2019; Montecinos, Ahumada, Galdames, Campos, and Leiva, 2015). This is a limitation as it focusses a priori the time of observation in one single set of tasks spend in the classroom. However, shadow observations have been an important method to broaden the view on what we understand as an actual working day for a teacher. In this way, by 'going with the flow' (McDonald, 2018) and following the complete routine of a teacher during a day to make observations about all the tasks and actions they performed I was able to identify teachers' practices occurring both in and outside the classroom. Therefore, the method was precise in its capacity to generate information regarding teachers' professional practice (Clare Brooks, 2016) and to provide verification of the information declared by the participant teachers during the interviews.

The planning of a shadow observation was agreed with the participant teacher in which they were previously asked if they could be followed on an average day at school. According to the type of registry generated for shadow observations can be by event or periodical. I choose the former to generate information that would resemble the schedule and agenda of a teacher during the working

day. Therefore, registry one started with teachers' morning routines before the first class which typically involved breakfast or having a cup of coffee in conversation with the colleagues in the teachers' lounge or the corridor.

Shadow observations are; therefore, a good strategy to build rapport (Uwe Flick, 2018) with the participant teachers as the observation moves forward. Since the focus of the method is in following teachers' tasks and routines there are many moments that involve interactions with other colleagues, staff from the school, members of the leadership team or visitors. These moments can be recorded via registering participant teachers' responses on fieldnotes but they can also be accompanied with photographs and audio recordings when it was permitted. Shadow observations are also a type of participant observation (Pink, 2013) that offered the flexibility to ask other people in relation with the participant teacher if they wanted to be interviewed briefly and grant their inform consent. I found that it was good practice, during the pilot study and later for the cases of the studied province, to give the participant teacher some time off during the lunch time to decompress. This moment it was often in company of other teachers with which we engaged in informal conversations together with the participant teacher or in separated groups. This moment was also useful to conduct other interviews with people at the school that the participant teacher deemed relevant to talk with.

Consequently, the method is time consuming for the researcher and also can be disruptive for the participant teacher. Thus, it was important at all time to consider to respect the privacy of the teacher and ask if it was pertinent to ask or talk with fellow colleagues or people at the school. Even if interaction with other people involved tacit consent. The social dynamic of the researcher and the participant is important in this method and it resembles the type of interaction that it is generated when visiting someone's home in which the participant plays the role of the host and the researcher of the guest. The same code of conduct applies and it would be equally awkward to find the researcher in a room where it was not invited.

The instruments to gather information are diverse with fieldnotes and schema observation sheets the main ones during the day. Photographs are preferable to video recordings during the moments of lesson observations because they were less disruptive and generated similar information. Audio recordings were significant during the debriefing moment after each lesson in which I asked questions about the decisions that the teacher made during the lesson, the type of material they used and prior knowledge required to performed the lesson in the way that it was presented. It was good practice to share the fieldnotes and observations sheets with the teachers because it reduced the anxiety related with the pressure that could involve being observed, particularly in school contexts of high stakes assessments in which observations are commonly associated with a validation of practice or

progression in the career. It helped also to build trust and to facilitate discussion that validated some of the observations that were generated during the lesson or along the day.

Shadow observations were immediately systematised after each school visit. In combination with the multiple records of the day I built case summaries for each participant teacher. I used the teacher schedule or agenda of the day that was identified during the shadow observation as the structure of each report. These case summaries were useful in the following coding process as they provided context and meaning to the multiple interview transcripts that each case generated.

3.5.3. Semi-structured interviews

Semi-structured interviews were designed to gather information from the research participants to explore specific topics and be sufficiently flexible to adapt to the context of each case teacher (J. Maxwell, 2018). This method also provides with the capacity to explore similar topics across different cases in multiple sites (Stake, 2005).

Two sets of semi-structured interviews were implemented. The primary interview that involved the participant teacher in each case study and, the secondary set of interviews with the participant teacher's extended network which involved a more diverse profile of people.

The instrument that was designed for the case teachers' interviews aimed to gather information about the participant's background information and three areas of expertise regarding participant teachers' professional learning on-site, locational and placed-based knowledge and collaboration networks.

The interviews were conducted with the teachers at the schools, audio recorded and transcribed verbatim for the analysis. They were purposefully performed after the shadow observations on the same or following days for two reasons: a) to harness the rapport (Uwe Flick, 2013) that had been built previously during the shadow observation; b) to provide with a moment for the researcher to confirm or validate previous observations (Huberman and Miles, 2002; Miles et al., 2020) that could have emerged during the observation process and were not previously considered in the initial design of the interview.

The semi-structured interview was an important milestone in the research process since it typically involved closing a month's work with the teacher. The cycle of work started with the feasibility interview in which the teacher was invited to participate in coordination with a member of the leadership team of the school. This was followed by a second or third visit to complete the Rural Teacher Survey which was a structured interview guided by a questionnaire with pre-established answers (Hesse-Biber, 2010). Even though the structured interview was performed using close ended

questions, the talk that was generated with the teachers was generally rich in content and provided with topics of conversation that were later followed up during the semi-structured interview. After the application of the questionnaire, a different date was schedule to perform the shadow observations that included debriefing interviews which were interchangeably registered using audio recordings or fieldnotes. Only after the shadow observation the semi-structured interviewed was schedule and conducted.

In this way, the semi-structured interview was designed as part of a continuous and progressive cycle of information generation in connection with other sets of instruments. This provided with a positive outcome for the research since the semi-structured interviews were performed with the teachers having an increased sense of confidence towards the researcher, it involved a more relaxed tone in the conversation and teachers' positive predisposition towards the questions asked during the interview in which they were able to talk about their views on their own practices.

The realisation of the semi-structured interview opened another phase of data gathering that took another couple of months in each case which involved teachers' extended network interviews and the realisation of a car interview with the case teachers. The teachers were asked to refer to their own collaboration networks and possible contacts to talk with about ongoing projects or past interactions. This information was also asked previously in the questionnaire so this second iteration of questions was focused on understanding the reasons underpinning those connections and to increase confidence on the research by incorporating the participant teacher input in the decision-making process (Miles et al., 2020).

The extended network interviews started with the references that the teacher provided but it quickly scaled up because it involved other colleagues or people interviewed during the shadow observation as well as references from the school administrators. This process was conducted following a snowball sampling (Atkinson and Flint, 2001; Uwe Flick, 2018) criterion in which the aim was to increase the catchment of participants in each cycle of references and iteration of interviews.

The flexibility of the snowball sample procedure was helpful in the phase of extended network interviews because each case brough interactions with multiple and diverse profiles of people: professionals that were teachers, members of the school administration, professionals employed in a local business or organisation and other members of the community with which the teachers have had previous interactions as part of their position at the school.

3.5.4. Car interviews

I have built the car interview as a mobile method (DeLyser et al., 2009) based on walking interviews (Evans and Jones, 2011) that make use of a participant's environment to access geographical information. Even though its use was limited to a couple of cases, the data that generated demonstrated how teachers possess spatially organised information which was continuously linked to a location.

In its implementation, the car interview was linked to a walking interview as a recursive method that involved drifting into the participant's world. This method presupposes a participatory approach to research as participants are able to suggest routes and, literally, conduct the interview. In the way I implemented, its procedure took the form of an open-ended interview (Miles et al., 2020) so the teacher would be able to elaborate on the route without a structure previously defined by the researcher. A car interview is in many senses a journey of discovery. I let the teachers design the route under the assumption that the locations would have an associated meaning in their experience.

In the case of Catherine for example, she took me from the school into the neighbouring natural reserve. The conversation here revolved around her interactions with the park rangers in the environmental workshop that they organised together for the pupils in the school. The target of that trip was the shrine of the 'apestaditos', a place of religious and historical connotation for the community that I did not know of its existence even though I had previously visited the area.

The method made use of the landscape of the road as a form to elicit information in connection with the teacher's context. Every turn in the road or stop to admire the view involved probing the participant with new open-ended questions. In its implementation, the method revealed its potential for embeddedness since in the experience with two teachers I was able to meet other people that were part of their everyday experiences. The car provided with the liberty to travel towards places where this meaningful people lived or gathered around one specific place such as the shrine.

The method proved to be particularly effective to address the scale of the social phenomena in rural settings (S. White and Corbett, 2014), which involved larger distances to travel but generated rich information about the social network and solidarity relations within a community (Durkheim, 1997; Scott, 2015)

3.6. Data analysis methods

3.6.1. Content and thematic analysis

I have approached the data for this research using qualitative content analysis (Uwe Flick, 2013) which involves considering the statements and observations about the research participants as content susceptible to be explored to extract its meaning. This involved two particular decisions.

First, I decided to use qualitative content analysis rather than grounded theory or discourse analysis because of how I understand the data as a product of both what the participant reports and what the researcher identifies from that account. On the one hand, grounded theory (Glaser and Strauss, 1999) was not fit purpose in this context because of its overreliance in the descriptive power of the sources of information. This problem can be found underpinning its assumption that the researcher can approach the data without previous hypothesis. On the other hand, discourse analysis represents the opposite end of data analysis methodologies. As Delyser et al. (2009) argue, discourse analysis should be understood more as a theory on how data behaves than a procedure that enables the extraction of meaning and information from data sources. Its power of exploration is well suited for research that seeks to probe critical theory assumptions rather than operating as a guide and approach for the interpretation of data.

Second, I decided to structure the exploration of meaning using thematic analysis as a data analysis method that facilitates the researchers work to identify the theory and data driven process that involves building data in qualitative research (Guest et al., 2012). Braun and Clarke (2006) understand it as a method that focusses on identifying patterned meaning across a dataset. This is important to highlight as the coding process involves the active engagement of the researcher in labelling the information generated throughout diverse instruments and research stages (Stake, 2005).

In this research, the first iteration of coding involved an exploration process that latter involved to organise the codes using axial coding as a second round of in-case coding (Hesse-Biber, 2010). Renz and others (2018) argue that this is a two-step strategy for qualitative content analysis that can be approach as an 'intramethod' of triangulation. This was particularly important for the research as each case involved coding several transcripts, particularly those coming from different informants that participated in the extended network interviews. These transcripts were read and coded individually but clustered as part of one set associated to the case where each participant and method (extended network interviews, car interviews, shadow observations) added a new layer of data.

Figure 3.5 shows an example of the coding process for the in-case analysis stage. One statement within the transcripts can provide information that identifies different aspects about the teacher. Here, the fragment in particular shows the data driven codes related to the places that the teacher mentioned as the localities in which he had been taught before. The codes were later clustered as the theme ‘Carlos places’ and then again, using a theory driven code, labelled as ‘professional trajectory’.

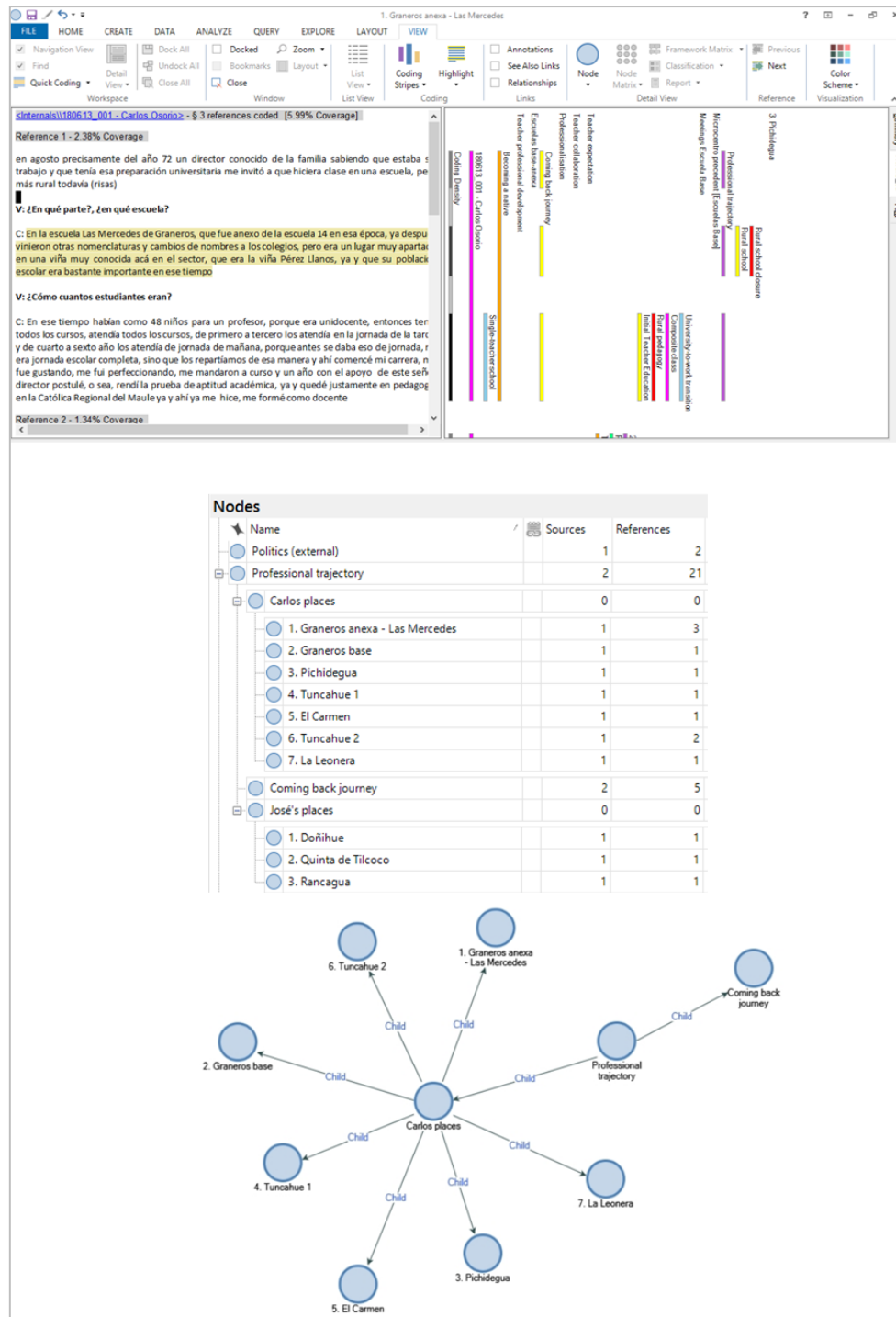


Figure 3.5. In-case analysis. Coding process example.

Once the first rounds of coding were generated on a case by case basis, I then moved to search for specific themes using axial coding (Hesse-Biber, 2010) in a process of cross-case analysis. For example, the code ‘professionalisation’ (Figure 3.6) did not exist in the first iteration of coding but I build it up from the stories that one of the case teachers shared as part of his experiences in a professional development programme. The first iteration generated several codes related to Carlos’ continuing professional development in the CPD programme that were latter associated to the experiences of other case teachers.

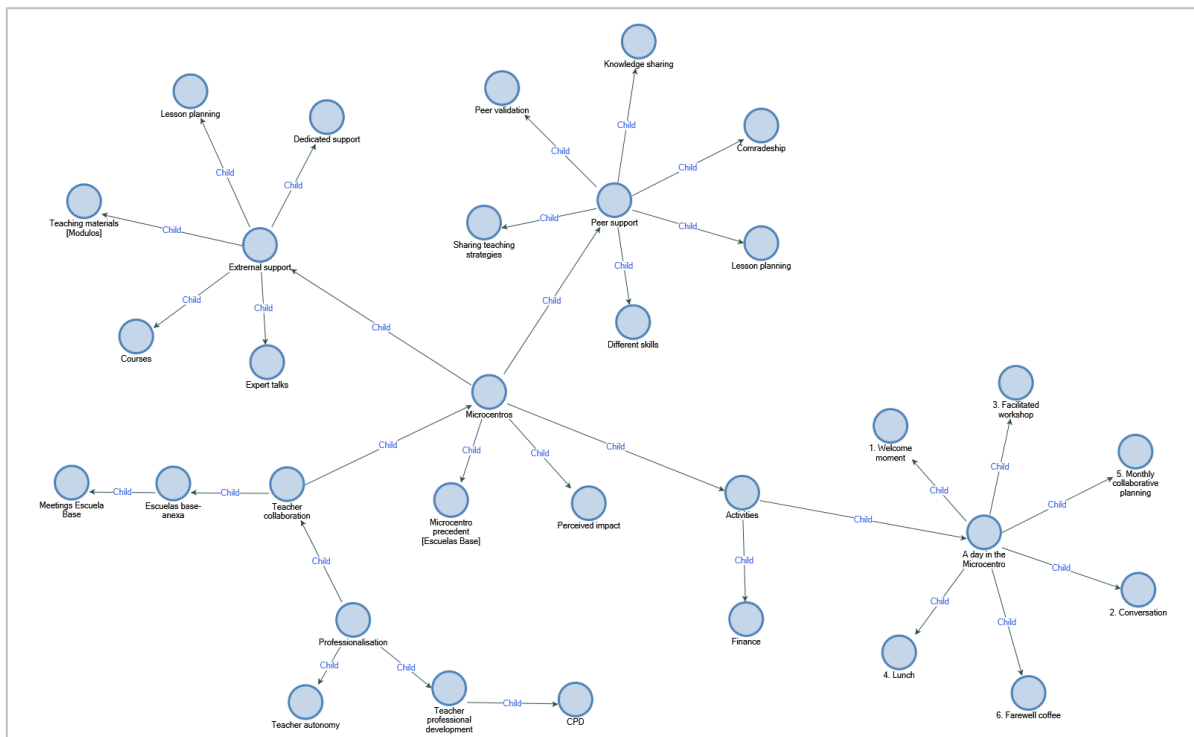


Figure 3.6. Cross-case analysis A.
Project map – ‘professionalisation’ node. Coding example

The process of clustering themes together is an aspect where the researcher is particularly active in organising the information. The task is not entirely theory driven as the themes that emerge from the labelling process may sometimes be coded in-vivo from the statements that the participants declared. These are rich codes that a particular participant may have explicitly articulated or have been broad enough to contain multiple themes. This is the case of the code ‘microcentro’ which was mentioned by several participants to describe a particular professional development programme in Chile that was common amongst rural teachers.

In the stage of cross-case analysis, theory and data driven themes were later used in a process of code categorisation or selective coding to better represent the specificity that was been described by the participants. Here, the code ‘professionalisation’ (Figure 3.7) appears as a category given its descriptive capacity to depict codes with depth and density (such as the code ‘microcentro’) as well

as those that do not have those attributes but can be also associated, e.g. 'teacher professional development'.

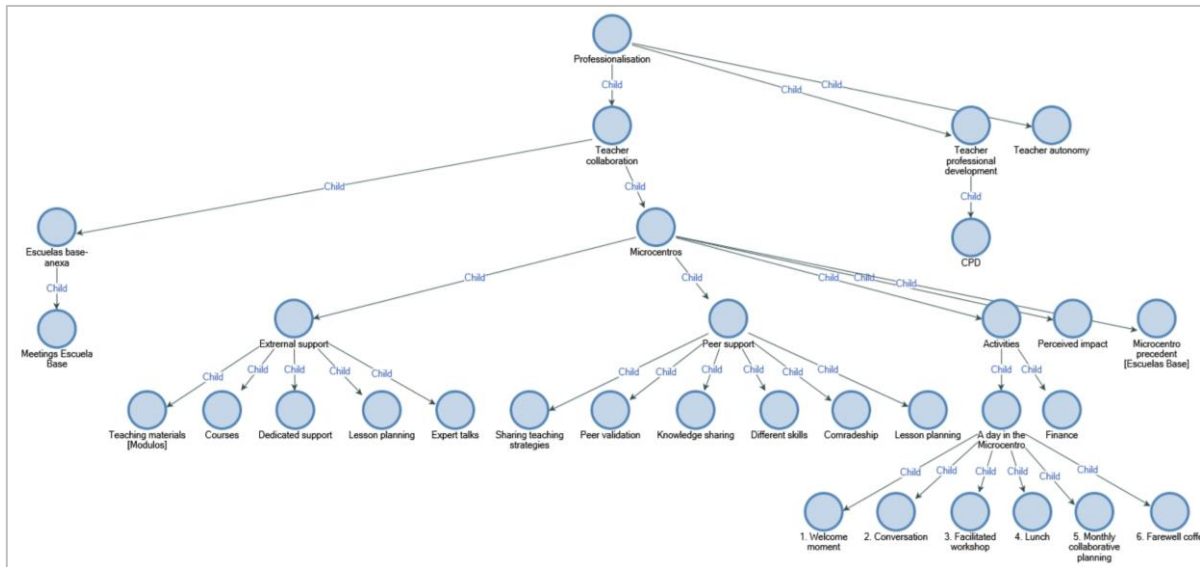


Figure 3.7. Cross-case analysis B.
Project map – 'professionalisation' node. Coding example

There were themes that existed in only one specific case. However, the process of axial coding was important to build up the code density of themes across the cases in which multiple themes can be clustered together (Figure 3.8). The comparison between cases was particularly useful to identify meaningful codes and their capacity to explain similar processes in multiple sites.

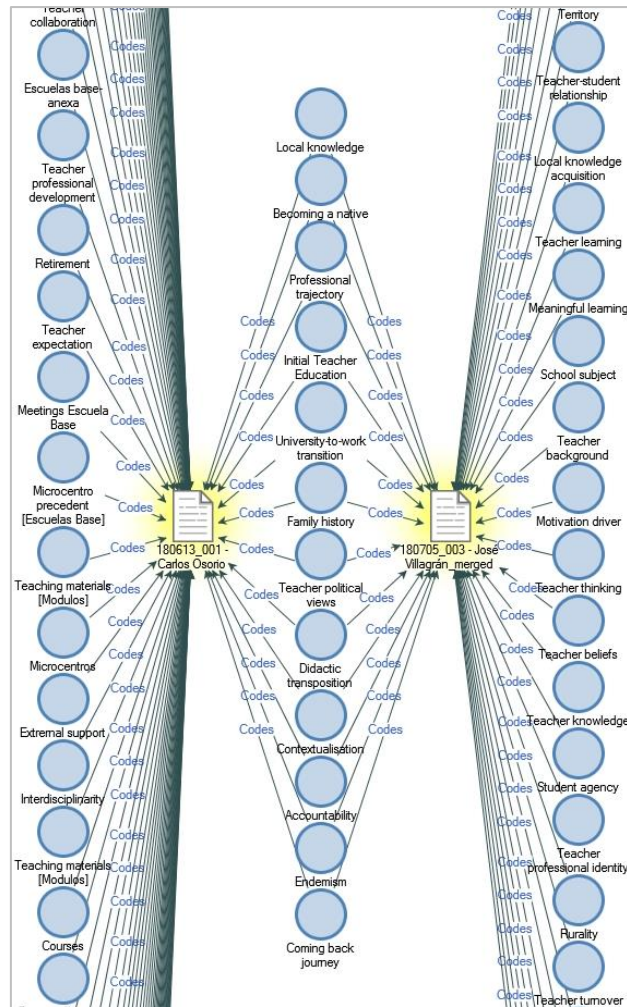


Figure 3.8. Cross-case analysis C.
Comparison diagram between two cases (Carlos and José). Coding example.

4.1.1. Cluster analysis

The use of numerical data from the survey aims to describe the practices of rural teachers in the Cachapual province, not to look for statistical significance in the framework of this qualitative research (J. A. Maxwell, 2010). It is important to consider that when the text in the chapter refers to ‘teachers in the province’ is to those 87 surveyed teachers (one per school) that agreed to participate in this study. Thus, the depiction of the rural teachers in this research does not imply that the sample speaks for all teachers in the province (Huberman and Miles, 2002).

The 2018 Rural Teacher Survey has been systematised in two specific data sets: The first data set is organised by participant teacher and contains all teachers’ responses characterising their context, perspectives and practices related with their work at the rural school. The second data set is organised by the interaction teacher-community. It is based in five variables that were asked to the surveyed teachers in the questionnaire about the number, type, location, duration and contact with organisations and individuals that have collaborated with the teachers in their work at the schools.

The first approximation to this data was to conduct an exploratory analysis (Cope and Elwood, 2009) on all variables. This was particularly relevant to build a first understanding on who were the surveyed teachers in rural schools and how this could provide context for the case studies. The survey was particularly helpful in providing further information on how the school was situated in a particular local school system, the spatial trajectories of teachers during their professional life and the connections amongst teachers. This last item was relevant because rural teachers CPD programmes are commonly set in a networked way, however, the interaction of teachers proved to be quite limited. Conversely, non-teacher-to-teacher networks shown more activity in different communes.

This data was generated because one of the problems in observing teachers' professional practices is that they are mostly invisible. They hardly appear in classroom observations because they belong to a realm of interactions that are related with the school community (Simon Catling and Martin, 2011; Lovell, 1998; Martin, 2008a). Thus, a particular challenge to be adverted in the analysis was to provide substantiation that such practices exist.

Teachers' professional practices are operationalised here in the sense of interactions. As a measurement – teachers' interactions are more comprehensive than the idea of teachers' networks (Fernando Araya et al., 2012a; Childs et al., 2014) since an interaction represents the actual out-of-the-classroom practice of a teacher, i.e., interactions with others outside the school for professional purposes.

The diversity of organisations and individuals in interaction with teachers in the province demonstrates the extent of teachers' professional practices. Surveyed teachers in the Cachapoal valley have been interacting with 85 different stakeholders operating in the province, in activities that generated 187 pairwise interactions (For a detailed list see Appendix 24).

Interactions consist of three features (Figure 3.9). Two nodes, teachers in relation with organisations and individuals, and one connecting edge, activities that teachers coordinate or participate. This is the same terminology that is used to describe networks (Hagget and Chorley, 1969; Yang, Keller, and Zheng, 2016). However, here I am referring to interactions instead of networks. Networks are made of interactions but interactions can exist without being part of a network. It is important to highlight this difference, since describing teachers' practices as part of a network would imply a relationship that in a number of cases did not exist. Teachers in the province participated in formal or informal networks but not every interaction was integrated within a network.

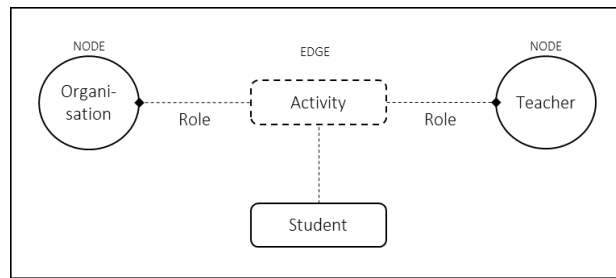


Figure 3.9. Interactions in teachers' professional practice

Teachers' interactions represent their participation in a diverse array of activities ranging from talks and workshops to collaborations and partnerships. There are two predominant narratives that explain these practices in Chile. On the one hand, they have been recognised as leadership practices, as teachers steer school activities that end up creating school's cultures (Montecinos, Sisto, and Ahumada, 2010). On the other hand, as a matter of teachers' political activism, considering educators' commitment to their students' communities and involvement with social organisations 'from below' (Apple, 2006; Williams, 2015).

Teachers' professional practices are operationalised here in the sense of interactions. Teachers' interactions can be comprehended similarly to the notion of teachers' networks (Fernando Araya et al., 2012a; Childs et al., 2014) as a measurement that indicates the relationship with others. However, here the notion of teachers' interactions focuses in the relationship between classroom and out-of-the-classroom practice of a teacher, i.e., interactions with others outside the school but for specific professional purposes.

Teachers' interactions represent their participation in a diverse array of activities ranging from talks and workshops to collaborations and partnerships. There are two predominant narratives that explain these practices in Chile. On the one hand, they have been recognised as leadership practices, as teachers steer school activities that end up creating school's cultures (Montecinos et al., 2010). On the other hand, as a matter of teachers' political activism, considering educators' commitment to their students' communities and involvement with social organisations 'from below' (Apple, 2006; Williams, 2015).

The approximation to teachers' professional practices from a geographical perspective involves to consider them as spatial practices. The notion of spatial practice builds on the data following teachers' network of relations using a strategy of snowball sampling as it was possible to identify the rich connections that the teachers participate and create from within the school. However, further information was generated to provide a more precise description of teachers and their practices. Three methods were employed on these analyses: Similarity analysis (ArcGIS, 2018; Yan and Li, 2015), bipartite networks and two-step cluster analysis (Harris and Jarvis, 2013). Although both methods are

types of cluster analysis, I did not use that grouping techniques to build profiles of teachers or practices that could label or induce a particular narrative in otherwise diverse experiences across the province. Although the cycle of analysis was dialogic in the successive steps, the decision to incorporate survey data was always subsidiary to the descriptions generated in the study of the cases.

Grouping analysis (Yan and Li, 2015) showed there are four distinctive groups of teachers in the province. These groups of teachers are based on their descriptive value, not on teachers' distribution in the province. The results on Table 3.3 (See R2 column) indicate that teachers' views on the territory as spatial impact of their practice, source of knowledge or as their school context were variables that were assessed similarly by different teachers, indicating a common understanding –a baseline- about territory. Teachers' notion of territory as a collection of meaningful places, people and resources and teachers' motivation to teach were better variables discriminating among teachers, showing that they divide the teachers' profile into clusters most effectively.

Variable	Question	Mean	Std. Dev.	R2
Meaningful places (PPTER22C)	It is the network of places that are meaningful to me or my students' everyday experiences	4.5	0.803336	0.768378
People and resources (PPTER22D)	It is the network of people and resources that I have articulated to support my teaching	4.197674	0.974319	0.629326
Motivation to teach (PPTER22E)	It is my motivation to adapt my way of teaching to my students' local needs	4.465116	0.802578	0.601854
Spatial impact (PPTER22B)	It is a space where I can generate a positive impact	4.581395	0.722803	0.542281
Source of knowledge (PPTER22F)	It is a source of knowledge for my professional practice	4.5	0.803336	0.465068
School context (PPTER22A)	I see it as my school context, the space of my students and their community	4.430233	0.800301	0.160054

Table 3.3. Territory construct province survey

Similarity analysis 'identifies which Candidate Features are most similar (or most dissimilar) to one or more features to match. Similarity is based on a specified list of numeric attributes' (ArcGIS, 2018). Similarity search was considered to explore whether teachers' practices vary spatially. This type of geographic question has been explored before in education and for the case of Chile considering the urban-rural divide (Fernando Araya et al., 2012a) and the uneven results of pupils' learning outcomes across regions (Vera-Bachmann and Salvo, 2016). Yet a common way of conceptualising the geographical differences has been to divide teachers' practices according to their proficiency into effective and non-effective (Barber and Mourshed, 2007). Yet, against a backdrop of divergent paths in teachers' professional cultures followed by different school contexts, the method of similarity search was relevant to inform to what extent teachers could collaborate between each other and how they have built their own support networks similarly but without necessarily having a direct relationship.

Bipartite networks on the other hand enable the exploration of teachers’ interactions with other individuals or organisations and how the exchanges between the two groups could indicate the presence of extended professional communities with which teachers were able to create partnerships or associations. Bipartite networks (also called bipartite graphs – used in Chapter 4) have two sets of nodes on different levels:

the ties indicate membership or participation by the members of one set in the other. For example, individuals (one set of nodes) have a tie with each organisation (the other set of nodes) to which they belong. Such networks are often used when social scientists cannot ask actors to report their relations with other actors or directly observe their interaction. They then resort to indirect methods of inferring ties through reports or archival data of the social events in which actors participate, or the organisations to which they belong. (Yang et al., 2016, p. 13)

Teachers’ practices were also explored using two-step cluster analysis (Harris and Jarvis, 2013). This method was particularly important to explore teachers’ practices using categorical variables that could take a fixed number of possible values. This was the case with most variables in the survey which aimed to describe and observe teachers practices on the basis of qualitative properties. The cohesion and separation of clusters of practices obtained a value above 0, suggesting validity within the clusters and between their different groups (Figure 3.10).

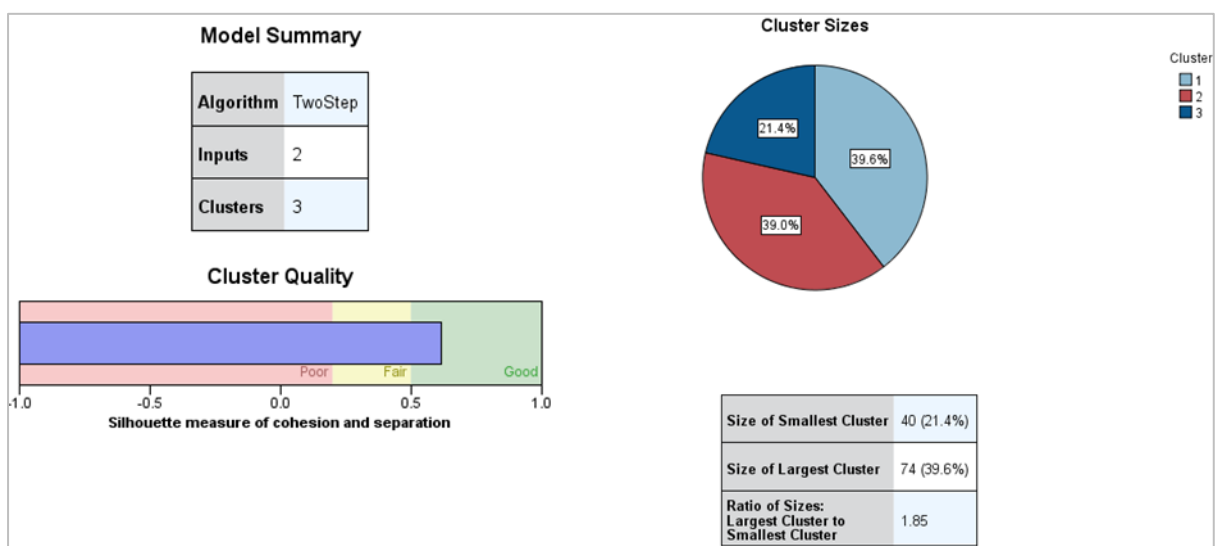


Figure 3.10. Two-step cluster analysis of practices and interactions.

3.7. Validity and reliability

The research design contemplated different processes and methods to improve the validity of the study. Factual accuracy is address by the combine use of different sources. The cases will be built on the basis of teachers’ reports but will also consider the background information provided by teachers’ extended network of partners, colleagues and stakeholders.

The research approach considered different methods. This could involve issues of reliability. 'If different observers or methods produce descriptively different data or accounts of the same events or situations' (Huberman and Miles, 2002). This is an issue that can be anticipated for observational data, which is going to be address by the use of methodological triangulation using different type of instruments that adds different layers of data but also provide consistency across cases. Thus, the discrepancies between sources was not a problem in the analysis but, on the contrary, it enriched the data in issues such as the alinement between teacher and local authorities about rural pedagogy or more details accounts in the case where rural conflicts were present and the teacher had to remain impartial.

Reliability is also a criterion informing the use of a pilot study (phase 1) and the main study (phase 2). The sampling strategy for the first group of teachers generated access to teachers directly involved with a network of researchers in geography education. Although this provides with rich data, it can also involve auto-confirmatory bias (Covarrubias, 2015) because the accounts given by these teachers about their relation with the territory might be in conformity with the referrer. Thus, the second sampling strategy provides with a different means of access and selection of teachers –through a survey- that can make the accounts of teachers more reliable and replicable.

The survey considered a network size and geographical criteria to select the case teachers. The problem with the former criterion is the potential for elite bias: 'overweighting data from articulate, well-informed, usually high-status participants and underrepresenting data from less articulate, lower-status ones' (Miles et al., 2020, p. 290). This does not involve that the teacher left out of the selection were considered less active. Moreover, a reduced network size also suggests that those teachers might have experience structural constrains and less opportunities to enable interactions with other agents. It is possible that teachers in rural schools with larger support teams might have avoided the need for external support. This prove to be less likely according to survey results as schools with larger teams had similar number of interactions with those with a more reduce staff. Nevertheless, this issue was balanced with the application of multiple interviews with the extended network of the teachers and the survey data. These methods enabled the verification and comparability of the claims in one single case and, furthermore, to generate a clear picture of what were the conditions of the next neighbouring school and the extent of teachers' local practices.

The use of numerical data in qualitative analysis might also involve an issue of descriptive validity. Numerical data came from the survey applied to the teachers and provided the means to conduct spatial analysis. As Huberman and Miles (2002, p. 48) argue 'what makes this a matter of descriptive validity is that it does not involve statistical inference to some larger universe than the phenomenon

directly studied, but only the numerical description of the specific object of study'. Quantitative or mixed methods categorisation do not apply for this data as its use is related to the description and understanding of a phenomenon as well as its use to answer research questions instead of testing hypothesis.

Interpretative validity is address by a double process of analysis, concept driven but also data driven, to facilitate that the accounts are 'based on the immediate concepts employed by participants (...) [Providing with] what the objects, events and behaviours mean to the people engaged in and with them' (Huberman and Miles, 2002, p. 48). This was considered in the sequence of the data collection were certain instruments cascaded from observational methods towards the final interviews to check for internal inconsistencies and discrepancies between different informants. During the third and fourth phases of analysis the diversity of methods was extremely complement different types of information. The set of interviews with teachers extended network was pertinent to corroborate events, identify teachers' expertise that was recognised by peers and superiors and complement with information that the teacher was not aware of or did not mentioned during the observations and personal interviews.

The main limitation of this study regarding interpretative validity is the lack of a process of member checking (Birt, Scott, Cavers, Campbell, and Walter, 2016). The research design incorporated this process once the preliminary analysis would have been ready between July and September 2019. Individual reports were sent to the participant teachers to ask them how they feel the case represented their own understandings on teachers' practice. However, this coincided with the finalisation of a national strike that lasted for several months in 2019. By the moment teachers' were back in the schools, a social uprising occurred in Santiago and several regions (including the region of the study), involving curfews and effectively paralysing the entire country. The more violent part of conflict lasted until mid-November with several local ramifications in the following months. The situation was calmer by Christmas which also coincided with the beginning of the summer break until March, when the cases of Covid-19 started to spread in the country and the teachers had to provide extra measures to ensure their pupils were able to continue their learning processes on lockdown and without stable internet connectivity. I did receive a positive response from the teachers by email and messages but not extended comments. Given the context, I did not insist either. However, one of the teachers replied that she "felt her work was being finally acknowledged" and they did not raised issues about the use of particular excerpts from their interview transcripts or pictures.

3.8. Ethics

3.8.1. Positionality

I recognise that positionality is about much more than my personal political position or my explicit reasonings that I am able to voice out (White and Corbett, 2014). It goes far beyond that. I think of positionality is about how everything about my being affects my research (Miles et al., 2020). Both my outer being and how I present the world my inner being and how I make sense of the world.

I am a native to the site of study. This is probably one of the most influential factors regarding this research. It certainly influenced my decision of choosing the site of study. There is a number of practical reasons involved in this decision ranging from availability of accommodation to knowledge about how to move around in an entire province without getting lost or suffering any accidents. However, there are wider and deeper influences at play that are intertwined with this issue.

I grew up in a middle-class family at a mining city, although for most part of my adult life I have been reminded by other Chileans and my wife that the city in particular is more like a town. There is an ongoing national joke that my home city -Rancagua, might not even exist or appear in the map. I recently learned that people in the US even have a word for these places: the 'flyover-country' which is only viewed by air when travelling. Similarly, Rancagua only appears in the road signs on the way to Santiago, the capital city. I share this anecdote intentionally because it speaks about the duplicity that I have experienced by being raised in a site of both privilege and discrimination. It also tells you about the reasons that influence how I draw on critical and spatial theories to try to make sense of the world. I am sceptical of claims that suggest simple causal relationships in events in the social world and I'm always looking to see whose interests are being served in any context. I have had the rare opportunity of experiencing a place with all its multiple and conflicted meanings, so it is only fair that I shall conduct this research considering what I have learned to call 'multiplicity' and 'scale' as essential parts of peoples' stories and their efforts mobilising different territories.

When I said mining city, that was an overstatement. I am saying this not as an acknowledgement to my wife's ongoing joke but to the privilege that I had on my childhood as I grew up in a neighbourhood where all its people were related to the mining copper company. That neighbourhood was my representation of the city. 'The company' built the neighbourhood, the road that my window had a view on and the hospital across the street. The road was even called the 'Copper motorway' as the lorries came down the mountains everyday loaded with copper bars in their way to the train station and the port. Even today when I travel, I often ask people, 'So, how does your city make a living?' I still

expect for people to tell me why the city or town is there and for what purpose was built on the first place. I often receive an odd look in response.

I attended the same catholic-male only-private school as other children in the neighbourhood. In a highly unequal society as the Chilean, I suspect that my being a 'son of the copper' that attended a school that only accounts for 7% of schools in Chile may mean that some of my research participants bring assumptions about me into the room before we have even begun.

In addition, my being raised in this context during the late 1980s and early 1990s in the period of transition to democracy and Chile's economic boom means that I have got all sorts of barely visible privileges and I probably have a lot of blind spots in how I view the world. On the same period my city was thriving, my wife reminds me that her home city, the main coastal city of the country, saw its worst years as part of the privatisation of the port.

I suspect that some of this might dominate and some might be more in the background in my relationship with others. Nevertheless, the specific conversational nature of the research I am doing and its focus on education in a highly unequal and class-oriented society makes it an important statement.

There is a risk of doing research in this type of familiar settings. By having an insider's view, you bring all sorts of contextual understandings to the data that an outsider would not be privy to but even those understandings will be tempered by your own views about the context.

The insiders view also came from my qualification as a teacher. However, that label was also in dialogue with my position as a teacher educator. In Chile, that means that I am lecturer, I have a position at a university and I have more chances to participate in the design of the national curriculum than classroom teachers. When I was doing the fieldwork for this research visiting the rural schools in the province, several times I overheard the receptionist saying to the headteacher that the 'person from the Ministry of Education is waiting outside'. I never introduced myself as such but some people tend to read it in that way. This element was the most explicit issue regarding implicit power hierarchies. The place of my doctorate in an English university added to this issue. I tended to tone it down with others because it was a label that might deepen the difference in the dialogue with another person or even cause rejection amongst teachers.

There is an important discussion around positionality which argues that only certain people have got the necessary gaze or identity to make sense of certain kinds of data or certain life experiences i.e. only teachers should be allowed to study schools because only they can fully understand that experience. I think I take a bit of a middle line on this. If we take that to extremes it will mean that we

can only ever research ourselves and we can only share our research with ourselves. I have avoided that narrative because it is possible that they are going to be large blind spots in our understanding if our research is us researching the other and we are trying to make sense of the other from within our own lenses. However, I cannot avoid the problem that being a teacher in Chile is being part of low status profession. Often intervened by others in positions of power and administrators with limited knowledge in education. In this context, my being a teacher and doing research about teachers at schools is unavoidably a political statement.

I consider that thinking through my positionality entails a lot of reflexivity i.e., reflection plus action, but given that much of my positionality emerges from my own assumptions and my own blind spots you cannot actually do this work entirely on your own. That is one of the reasons I highlight the importance of working in and being overseen by a research community. I have challenged my understanding of the phenomenon I study by sharing my work to multiple research communities and communities of practice amongst teachers. I think the challenge there is to try and communicate with people that do not have you just nodding in agreement but actually make you feel uncomfortable or even irritated.

I think that the task of confronting my positionality in my doctoral work situated me in a good track for undertaking that kind of reflection in the research that I have done, as I know enough to reflect as best I can on what I am doing in my research and how it is that my position positions me in that research.

3.8.2. Use of findings

The study of teachers' professional practices focusses on out-of-the-classroom practices as an approach to enable a more comprehensive understanding on the work of teachers at schools. To some extent this involves a pertinent acknowledgement of the multiple tasks that are necessary for teachers to perform a lesson. However, to what extent is it fair for teachers to talk about an extended definition of teachers' professional practice? Is this a case of how educational systems have stretched the role and responsibilities of teachers at school? (Ball et al., 2012) or is it just good teaching? These questions are a matter of ethics because they define axiological issues regarding the teacher profession that I had to deal with in this research. I have no specific answer to those questions, however, it is important to highlight that a pertinent baseline to approach those issues is significance with which I have understood teachers' knowledge claims about their practice.

In this research I have analysed teachers' practices in an interplay between space and profession with the hopes to better understand the work of teachers in their own situated contexts. However, building

on this understanding would lose its ethical value if by claiming a particular finding I purposefully disregard the perspectives and views of teachers about it. This is one of the main reasons this research was designed as a case study explored from an interpretivist approach, to develop an open and contextual driven approximation to the practices of teachers.

Furthermore, teachers' knowledge claims can be also disregarded because of the position of teachers in the knowledge production processes and the sources of knowledge that they might use to build their claims. Since the work of Kuhn (1996) in 1962, the concept of paradigm has challenged the notion of impartiality and validity in science (Sismondo 2010, 14), making it more an issue of membership than of truism. Moreover, the question posed by Wynne (1996) on the lay/expert divide considers the legitimacy of science as well as regulated social institution (Berger and Luckmann 1968) that has different levels of power to create valid knowledge.

If validity is a matter of membership, this may lead us to consider that knowledge claims are defined by the divide between certified and non-certified expertise. However, 'the recently changing division of labour between certified scientists and experience-based experts (and the professionalization of the latter, especially in medical and public health areas) may lead to attempts to open up foundational issues, often linked to existing so-called deviant views within science' (Rip 2003, 423). The lay actors seem to have something to say in the knowledge construction debate.

The concept of lay knowledge (Wynne 1996) can be used to refer to people who have higher degrees of expertise; and therefore, in applying the concept we can state that every expert is a lay person in respect to other areas of knowledge. A person can also be established as lay by virtue of their social position, even if they have advanced knowledge of the area, for example if they are excluded from the regulatory or scientific community.

This approximation is useful to recognise actors and labelling processes where practitioners' knowledge is neglected; or otherwise, are recognised as consumers rather than knowledge producers. Moreover, it seems that Wynne's concept has more similarities with Collins and Evans (2002, 238) in the issue of membership rather than differences, as they state that they 'refer to members of the public who have special technical expertise in virtue of experience that is not recognised by degrees or other certificates as 'experience-based experts'. As literature on expertise has established that knowledge construction is associated to membership, a gap that remains is related on how to actually identify that expertise in practitioners.

The issues on the sources of knowledge for experience-based expertise, could be summarised in a simple idea: practitioners must gain a 'cultural foothold' (Collins and Evans 2002, 254) that guarantees

a secure position from which they could scaffold their own work. For Collins and Evans (2002) every fieldworker who enters a scientific field in which they are not a specialist has to learn enough about that field to come up with a meaningful analysis. 'Rarely, however, do they reach the level of expertise of a full-blown participant. In the case of the esoteric sciences, the fieldworker hardly ever participates in the science itself' (Collins and Evans 2002, 254). The same situation is experienced by school teachers, who have to engage with a minimum of two sets of different formal knowledge, one related to the scientific discipline and another to educational research; along with another set of everyday knowledge related to their students' cultural background. In this situation, teachers are normally in the process of 'learning enough' about their subjects' scientific discipline, even though at the same time they do not participate 'in the science itself'. That is why the category of territoriality (Haesbaert, 2013b; Lucas Melgaço and Prouse, 2017) is so compelling, because it contributes to explaining what happens with scientific discourse on the ground without turning to the overused and simplistic idea that there is a divide between theory and practice.

3.8.3. Ethics procedures

The project has been informed by the BERA Ethical Guidelines for Educational Research (2011). All the participants were adults, and the project ensured that all participants gave their informed consent to participate. Participants were informed that they were able to withdraw from the project at any time.

Staff from schools, universities or organisations were also considered as participants providing background information about teachers' practices. They were all adults that had a role in their communities or a position as part of an organisation, company or municipal office. Most of them held a higher education qualification. Their participation involved a semi-structured interview in a place of their choosing – often their workplace. Teachers' participation also considered participant observation and lesson observations, which only focus on teachers' practices but in some cases had the other interviewees present.

The group of teachers participating in the semi-structured interviews was referred by a local expert in the field of geography. This might involve issues of positionality. Especially in considering previous work-related relationships between local experts and teachers. In this case, anonymity cannot be fully address but confidentiality was assured. This was previously discussed with the teachers before they give consent to participate in the research. Access to study records has been limited to authenticated researchers during this research. During the interviews, participants were free to not answer or to skip to the next question. After the data collection, teachers were given the option to highlight any information with which they were feeling uncomfortable. Additionally, the study did not require from teachers to assess sensitive topics such i.e. ranking the programmes or initiatives of their partners.

This was deemed as a potential conflict because it could jeopardise teachers' involvement with their partners or stakeholders.

Teachers' participation in the project has been subject to local guidelines regarding permission. The permission of the schools' Headteacher was necessary, and the ethics regarding participation were discussed with the headteacher, including the need to protect the anonymity of individual teachers. Where the headteacher was part of a small team at the school, issues of anonymity were discussed with the participant.

All teachers' interviews were conducted at schools to prevent teachers in incurring in any transportation expense associated with the research. Teachers and headteachers provided consent to take photographs during the lesson observations and at the school provided that the faces of the students were not showed in the images. This was later confirmed with the teachers when they were presented with their case reports.

Before the implementation of the survey, invitation letters were emailed and sent by post directly to the schools and also to the local representatives of the teachers' networks. Their contact information is stored in a public domain from the Ministry of Education in Chile with access for the general public.

The survey was paper based. Initial plans included an online survey that I did not implemented given the concerns about accessibility raised by teachers in the pilot study. Internet access in rural areas of Chile can be limited. Thus, to address this issue, locally employed research assistants were considered to provide support in the survey data collection. Their recruitment was funnelled through the local university requesting previous authorisation from the university's authorities. Research assistants' were volunteers over 18 years old. Their involvement was conditioned to their status as pre-service teachers and their participation in a workshop that I design to provide training and to ensure ethics and research procedures were followed, as well as emergency procedures. I designed and implemented this workshop. Research assistants provided support only for the application of the surveys and they did not interact with students. Their participation was during two weeks in the preliminary period before case selections, thus, they did not participated in the following semi-structured interviews or observations at schools.

In addition to the data provided by the interviews and survey, data analysis involved secondary data provided by the Ministry of Education in Chile. This data provided general background information such as number of teachers per school or georeferenced data in an area. The information provided by the teacher was not be linked or displayed with their identification number in the data base. The use of geo-located data involved issues of anonymity as schools could be identified. However, results from

the survey were anonymised and, furthermore, displayed in a generalised fashion to prevent individual associations to schools or teachers.

Data has been kept securely, on password protected devices (laptop, external hard drive and cloud storage). The use of the online cloud service stores European customer data on its servers in the US. The EU-US privacy Shield Program legalise the transfer of personal data from Europe to the US.

As part of the risk assessment the environment did not represented a safety hazard. The risk for assault was low and contact numbers of emergency were known. A car was rented to travel to schools. This was needed as an alternative to local buses with limited routes during the day. The car was inspected for maintenance and compliance with national regulations. As a driver I am trained and hold the appropriate licence in the country of the research. There were adequate rest periods to prevent driver fatigue. I am a national at the country of the research and a native Spanish speaker which is Chile's official language.

3.9. Reporting research findings

The methodology and research design outlined in this chapter was built following the multiple decisions that were taking previously and post data collection and analysis. In the following chapters, I will move into the analysis chapters that were built thematically incorporating description of the case, the relationship with its context and analysis. Chapter 4 outlines the practices of rural teachers at scale, considering their experiences in the rural school ecosystem of the province. In order to emphasise each case, the following chapters introduce them individually: Carlos (Chapter 5), Catherine (Chapter 6) and José (Chapter 7). The analysis chapters end with a brief in-case discussion providing with some pointers on the significance of the case. This later converges in the discussion (Chapter 8) where the different themes elaborated in the analysis chapters are connected and synthesise into an understanding that builds on the territoriality of the case-teachers. The conclusions (Chapter 9) elaborate on these connections by building up on the implications of this research.

4. Chapter 4 Rurality at scale: teachers' practice architectures in the Cachapoal province

4.1. Introduction

The valley of the river Cachapoal is a province in one of the central regions of Chile. Rural teachers in this province are part of an education subsystem that is not formally recognised (Moreno, 2007; Williamson, 2003) but that it is home to 112 rural schools distributed in 17 different communes. The scale of the province, however, is not an observation on size but of a level of practice (Clare Brooks, 2021) by which teachers produce rurality as a collective effort of unrelated, though intertwined, individuals (H. Lefebvre, 1991; Milton Santos, 2017b; Woods, 2011).

I will focus on this level that delimits the profession of a rural teacher – in the sense that Kemmis (2009, p. 30) described teachers professional practice, the 'mediating preconditions under which a practice is practiced' i.e. the preconditions that enable and constrain a profession. Surveyed teachers in the Cachapoal province, coexist in a rich and adaptive network of communities sustained in the interaction between teachers and other types of agents that enable and constrain teachers' practices. Most of them are non-educational agents looking to exert their influence in schools. However, teachers in the province have demonstrated that they can also 'play ball' with other agents, accommodating stakeholders interests meanwhile teachers carry out their own agendas. The structure of the chapter (Figure 4.1) develops this as an interplay between the school subsystem of the province and the professional practices that are developed by rural teachers.

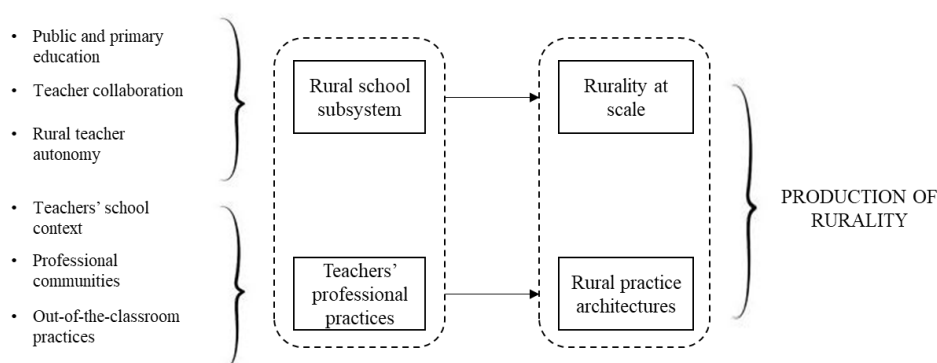


Figure 4.1. Chapter structure.

This chapter analyses the data from the 2018 Rural Teacher Survey that was developed for this research to explore teachers' practices in the rural context of the Cachapoal province in Chile. Therefore, the use of numerical data from the survey aims to describe the practices of rural teachers in the Cachapoal province, not to look for statistical significance in the framework of this qualitative

research (J. A. Maxwell, 2010). When the text in the chapter refers to ‘teachers in the province’ is to those 87 surveyed teachers (one per school) that agreed to participate in this study. It is important to highlight that the depiction of rural teachers here does not imply that the sample speaks for all teachers in the province (Huberman and Miles, 2002), although it does discuss teachers’ practices and perspectives in relation to previous publications and studies on rural education to provided better contextualisation.

The information from the 2018 Rural Teacher Survey was generated to provide contextual information to the case studies that will follow in the next analysis chapters. However, it is also an effort to capture the scale with which rural teachers operate on a daily basis. The rural scale, as a local artist from the Cachapoal province depicted it (Figure 4.2), is diverse, colourful, and it configures a landscape where distances seem larger than in urban areas (Araya et al., 2012) and the diversity of experiences and people is vastly dissimilar from one rural locality to the next one (Marcelo Garrido, 2013). Previous research on rural education (Corbett, 2020; Corbett and Gereluk, 2020; S. White and Corbett, 2014) has highlighted the importance of this layer for rural teachers’ practice but has categorised the rural scale as an elusive methodological challenge for qualitative research.



*Figure 4.2. Depiction of the rural education landscape in the Cachapoal valley.
Artwork commissioned to Julio Jeanmaire (local artist) in 2020 for the return of results process.*

4.1. Production of rurality

Teachers’ production of rurality involves taking a broad understanding about rurality, as it is considered a spatial product (H. Lefebvre, 1991) that is shaped by teachers’ influences over their own

schools' contexts. Therefore, space is approached here as a relational construct rather than a pre-defined categorisation of a rural-urban divide (Woods and Heley, 2017).

The analysis that will be shown in this chapter has shown that teachers in the province have circulated, experienced, and embodied certain spatial practices in the localities where they have taught as a by-product of their membership to teachers' organisations, school arrangements, and interactions with the community. These situated practices (P. Roberts and Fuqua, 2021) contribute collectively to populate the space of the province with a particular narrative of rurality that is based on the schools and driven by the professionalism of teachers.

Nevertheless, rurality is not always achieved or perceived as such by the teachers. It is important to highlight here that, meanwhile teachers can engage in situated practices, they not always produce a territoriality. Territoriality (Haesbaert, 2013a; Milton Santos, 2017b) is distinguished here as a set of agentic practices that are embodied or performed intentionally to appropriate or provide meaning to certain spaces. The result being a particular territory. The following chapters will further explore the processes of production of territoriality with the case studies (Haesbaert, 2013b) but first it is important to understand here the practice architectures (Kemmis, 2019) that link practice and pedagogy, and how teachers contribute to define a space as rural.

4.2. Rural school subsystem

Teachers' professional practices in rural settings of Chile have been largely shaped by the nexus of state-based schools and primary education (Williamson, 2003). In the Cachapoal province, rural teachers have reported this nexus in the case study interviews as an education subsystem that has not been acknowledged in the formal structure of education governance but it generates its own dynamics that are distinct from urban schools.

4.2.1. Public and primary education

The rural teachers survey has showed that the landscape of rural education in the Cachapoal valley is predominantly state based. Rural schools in the Cachapoal province have coalesced into their own subsystem as 95.65% of the 112 rural schools in the province (Mineduc 2016) have been administrated by the local municipalities in each of its 17 communes. This is significant in a country where education is driven by private schools and a market-based education system (OECD and UN, 2018). More than half of Chile's education is private owned separating schools in three major groups: private-subsided (53.8%), private (9.1%) and state schools (34.1%) (Mineduc 2016). The growth of the former two has been to the expense of the latter.

According to the historian of education Sol Serrano (2018), state schools are called public schools in Chile because the term 'state' lost its meaning when schools were transferred to the local Municipalities in the late 1980s as part of a decentralisation policy that deregulated education on a national level, severed the direct link of schools with the central government and provided voucher incentives for the private sector to invest and participate in education (Donoso Díaz and Arias Rojas, 2012). According to Treviño, Valenzuela and Villalobos (2016) these privatisation policies have amplified inequality in the country and generated a polarised education system that separates pupils from high income households attending private schools from low income households in state schools. Private participation boomed in the early 2000s as the education system in Chile allows a for-profit model of business that has been normally implemented with the scheme of subsidise schools in the country (Treviño et al., 2016).

According to Sotomayor (2013), the dismantlement of public services is particularly troublesome for teachers. They have struggled with the shift into a market-based education system because their professional identity in Chile has been historically shaped as civil servants. Sotomayor (2013) indicates that teachers possess an imbricated social and pedagogical sense of purpose that has to respond to the high expectations that Chilean society has on public education. Furthermore, Serrano (2018, p. 342) argues that current state schools are not only the result of a series of progressive policies implemented between 1930 and 1960 but they have engineered a social group that contested the previous political order and cemented the meta-narrative of the 'Chilean republic' which is at the core of contemporary political culture in the country.

Since the late 1980s, the market-based education system of the country has proven to be particularly competitive in urban areas as the private-subsided schools expanded meanwhile public schools were contracted (Mizala and Romaguera, 2000). However, the presence of only three private-subsidise schools out of 112 in the Cachapoal province, according to the Ministry of Education 2016-2017 data, suggests that schools in these rural localities have evolved as places where the neoliberal policies implemented in Chile since late 1980s have had less influence. Furthermore, two of those three private schools are located in the peri-urban area of the capital city of Rancagua where the population of the region is larger and concentrated.

The educational landscape of the Cachapoal province can be characterised then, as a market anomaly (Woods, 2011) that has a specific geography in rural areas. The rural educational landscape of the Cachapoal province echoes the reality of other rural areas in Chile (Araya et al., 2012; Henríquez et al., 2015; UNDP, 2008) but it can also indicate how rural subsystems of education have become distinct spaces generally avoided by private ventures in education.

Rural areas in Chile lack the economic incentives to build private or subsidized schools. The reasons are diverse. On the one hand, pupils from high-income households attend fee-paying private schools that are concentrated in major cities (Oyarzún, 2020a). On the other hand, subsidized schools are less likely to enrol enough students in rural areas which affect the schools' ability to secure funding based on a voucher system per pupil. Rural population in Chile is too scattered and too deprived (Williamson, 2017) in order to maintain fee paying schools that could balance the state voucher assigned to pupils. On average, rural schools in the province are primary and (Figure 4.3) have 150 enrolled students, half of them have less than 130 students and a quarter less than 60 students. As the funds follow the child in Chile (Mizala and Romaguera, 2000), not the school, the catchment area for rural schools is economically inefficient in these cases.

According to Moreno (2007), the embeddedness of primary rural schools in their localities is the remnant of a rationality that was built in the period of education expansion in the mid-Twenty century that aimed to provide access of education to all, regardless of socio-economic status. The location of schools in this period followed the presence of settlements in which the criteria of that time was geographical: one locality, one school (Chaparro, 1967). This is partly the reason primary schools have been able to endure aggressive trends of rural outmigration, low levels of enrolment and school closures as they have become ingrained in the social fabric of rural communities (Williamson, 2017). Even in a context with national policies that foster schools with large number of students, the closure of a rural school for the children of a locality can come with a political cost for the local authority. I will further explore on this political and educational interplay in Chapter 5.

Rural education in the province relies then in the 107 primary schools located in rural localities. The geographical distribution of primary rural schools locates them across the province rather than clustering in urban areas. Primary teachers in these schools are considered to be "*generalistas*" – generalist teachers responsible for all areas in the curriculum. Their training is extensive in pedagogy and learning and normally they might have some preparation in different subjects but they are considered non-specialists in Chile. Nevertheless, the findings in this research have shown that more than a fifth of the surveyed teachers in the province are secondary teachers.

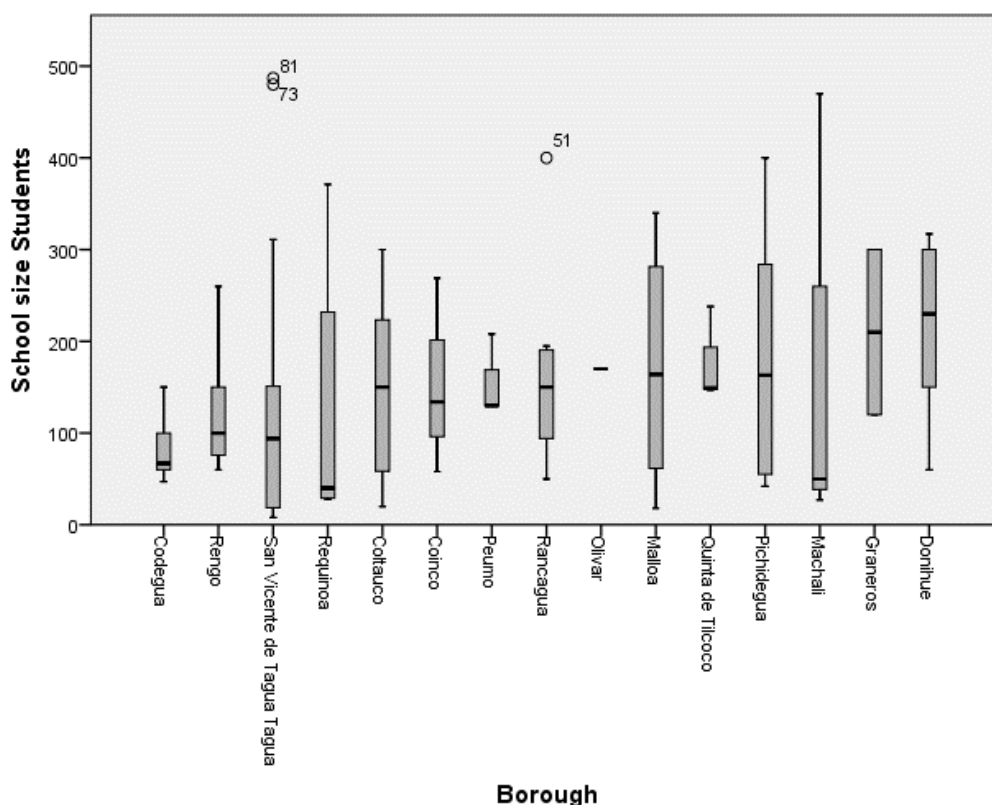


Figure 4.3. Rural school enrolment Cachapual province.
 Source: 2018 Rural teachers Survey. Outliers have been identified with the ID number case.

Figure 4.3 shows the high volume of students (≥ 400) in five rural schools across the province making two of them, located in San Vicente, outliers in the province. These are all secondary rural schools: Liceo El Tambo, Escuela Agrícola San Vicente de Paul, Escuela Zuñiga, Colegio San Francisco, Liceo Zoila Rosa of Portezuelo. Four are vocational schools that attract pupils from low-income households and provide with training on technical careers on the areas of farming, commerce and services. Only one of these schools (Colegio San Francisco) is entirely academically-oriented for primary and secondary education but, as a private-subsided school, it focusses on urban pupils as it is located in Machalí on a suburban area of the province capital city of Rancagua.

Secondary schools are exceptions in the rural subsystem as they concentrate in urban areas. In the transition between primary and secondary education rural pupils have to commute or migrate from their home-localities. A process that positions rural Chile in an international trend that encourages rural youth outmigration (CEPAL, 2019), which is relevant to consider as teachers are situated in a context where the average rural children in the province will leave their locality between the ages of 10 and 12 as part of their progression in education. According to Corbett (2020), the international trend of moving with relatives in the city or commuting to continue studies of secondary education in an urban area are processes that disrupt the stability and sense of belonging amongst rural children at an early stage of development.

4.2.2. Teacher collaboration

In the previous section I have explored how rural schools have a particular geography that separates them from a nationwide market-based education system in Chile. However, that general trend has some discrepancies when the practices of teachers are explored. The scholarship on rural education in Chile has depicted rural teachers as part of a professional culture of collaboration with high levels of associativity (Ávalos, 2004; Moreno, 2007; Perry and Leipziger, 1999; Williamson, 2003). However, this accepted narrative on rural spaces contrast with findings in this study in which teachers' networks in the Cachapoal province are fragmented. Furthermore, teachers have indicated they lack the expertise to maintain organisations or struggle to receive support from peers.

Williamson (2003) has suggested that teachers in different rural subsystems, similar to the one of Cachapoal, have historically participated in a professional culture of collaboration rather than competition. A feature that for Ávalos (2004) is unique in the Chilean education system, since this professional culture stems from rural teachers' membership to school-based professional development programmes created by the Ministry of Education that were uniquely tailored for teachers in public rural schools.

According to Moreno (2007), Perry and Leipziger (1999), rural teachers in Chile are organised in territorial networks called 'Microcentros rurales' (Rural Microcentres). As part of the general programme MECE/BASICA/RURAL created in 1992, the microcentros programme aimed to improve

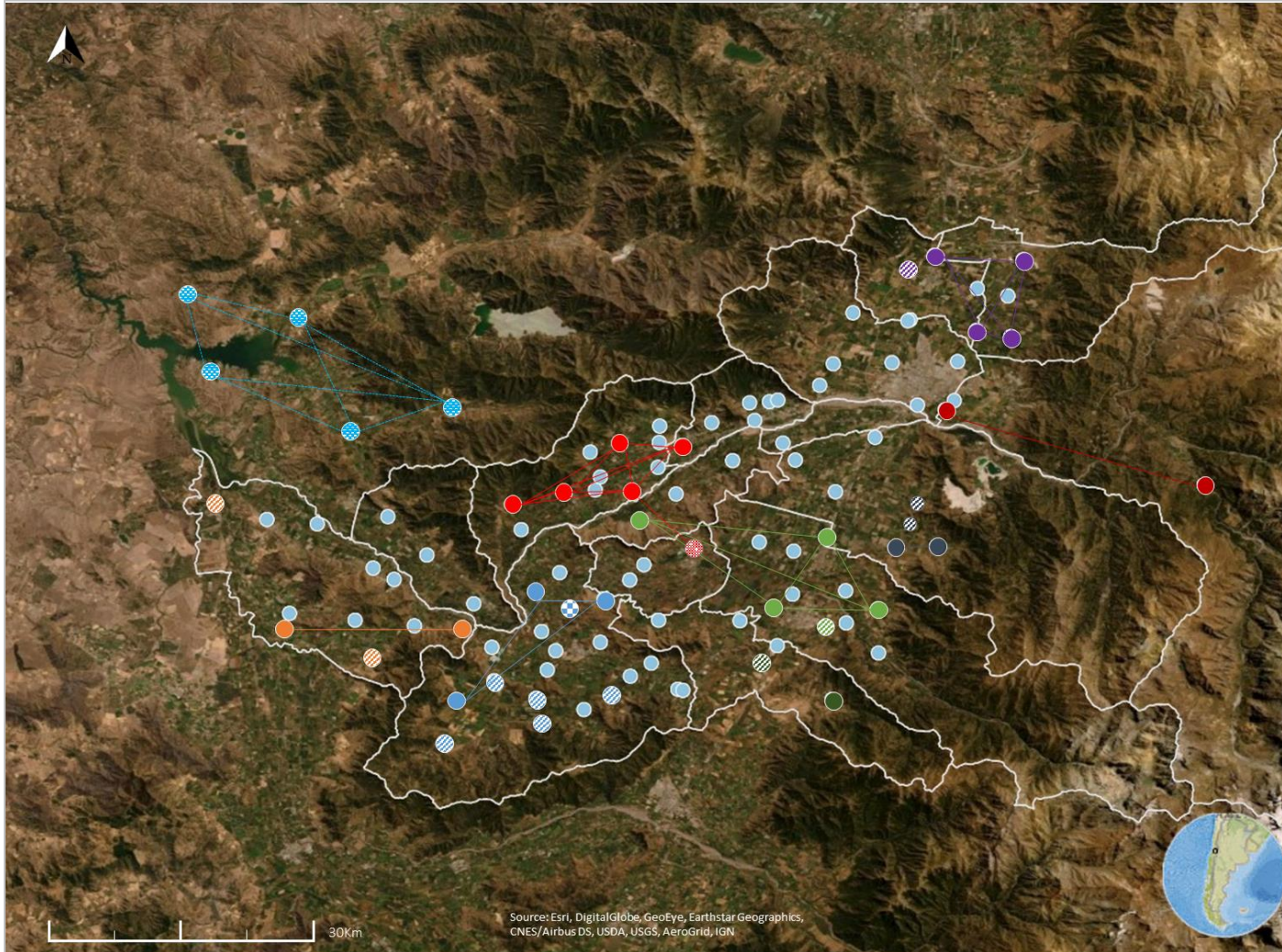


Figure 4.4 shows that between 2012 and 2020, nine microcentros were active in the Cachapal province.

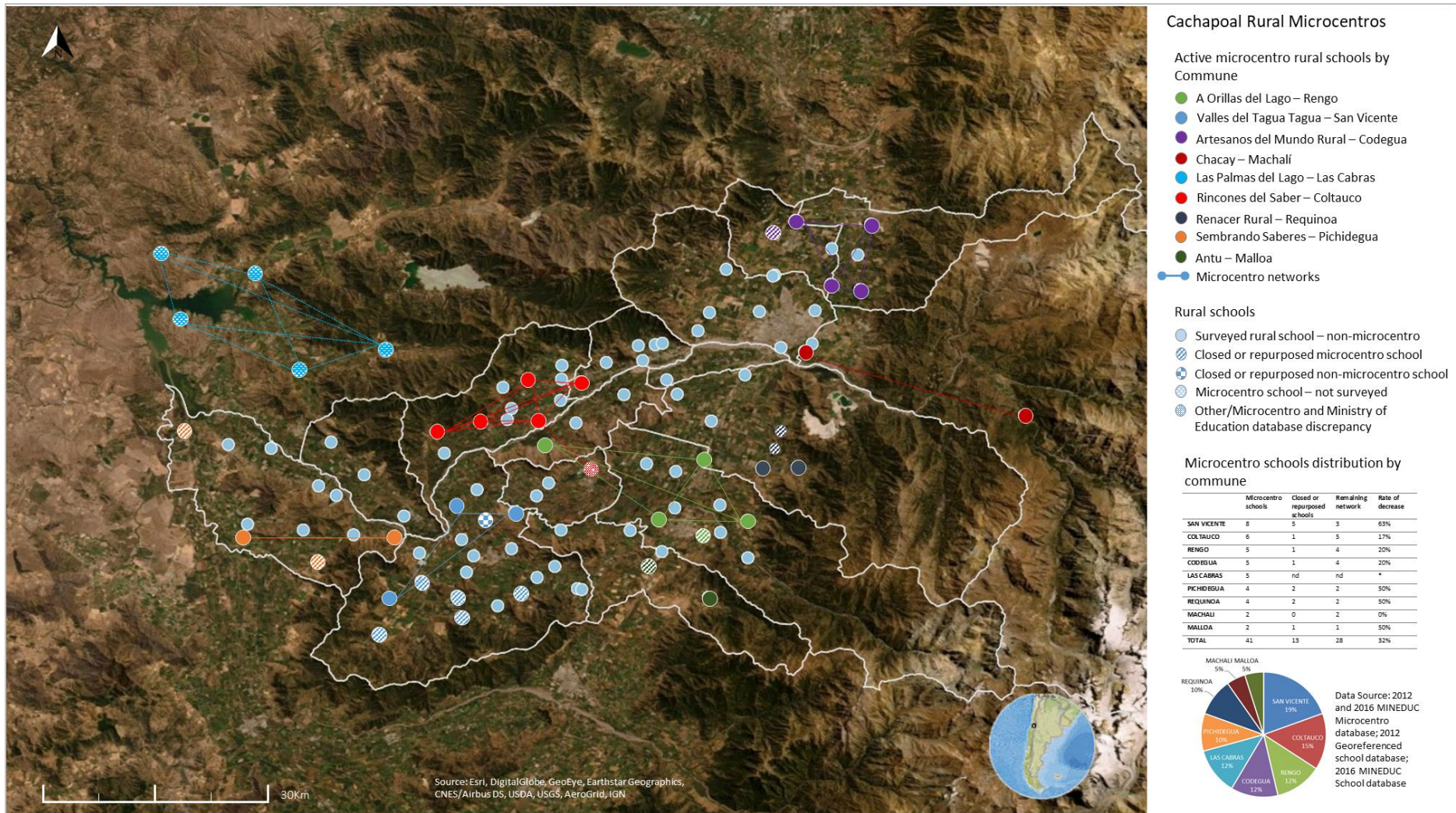


Figure 4.4. Microcentros in the Cachapoal Province.
Data reported by the Ministry of Education corrected with data from the 2018 Rural Teachers' Survey.

Microcentros have organised multi-grade schools of mostly one teacher in communal networks, as an effort of peer collaboration amongst teachers in different localities. According to Moreno (2007), this policy was grounded in three assumptions: 1) Every school context is different; 2) teachers' knowledge on their schools' situation is reliable; 3) teacher-supervisor relationship should be made using a facilitator's approach, which is key to overcome schools' challenges. Microcentros have become one of the few examples of professional development for in-service teachers still in operation in Chile. There is no nationwide CPD programme of this scale and scope for urban teachers in the country.

Since its implementation in 1992 the programme quickly became the norm for all single-teacher rural schools nationwide. The universities Austral and Playa Ancha (1998) reported 880 microcentros operating in the country by 1998. In 2016, the Ministry of Education registry accounted for 9 microcentros in the Cachapual province that clustered 41 rural schools (

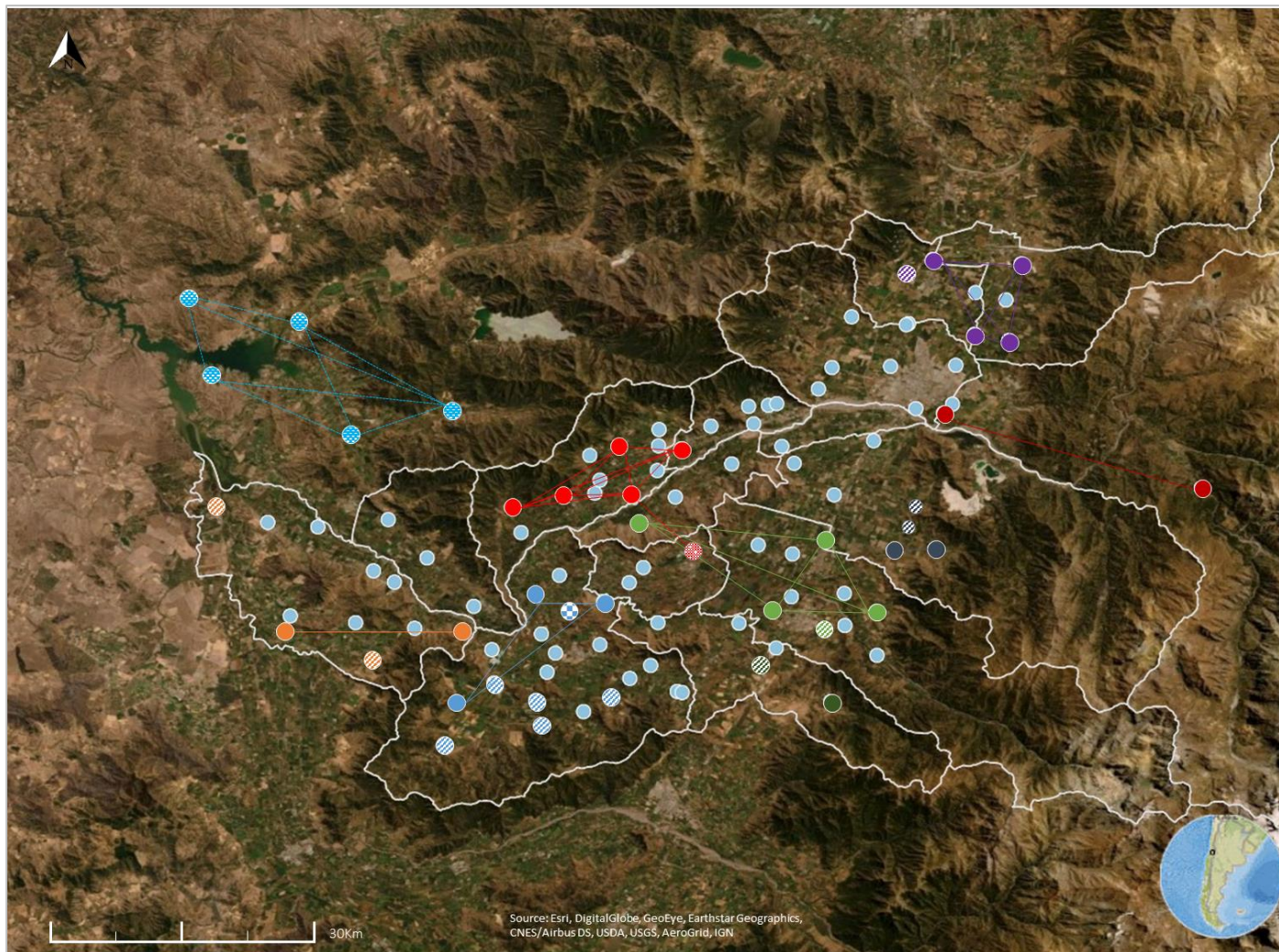


Figure 4.4).

However, according to the Ministry of Education data, the nationwide total has declined to 334 in 2019. The trend of decline is similar in the Cachapual province as surveyed teachers (2018 Rural Teacher Survey) rarely declared their participation in the microcentro, even though their schools were

registered in the national database. Furthermore, the changes in this dataset between 2012 and 2016 has shown the closure or repurposing of rural schools into nurseries or community centres, which has transformed large teachers' networks into collaborations of two or three schools in four communes of the province (

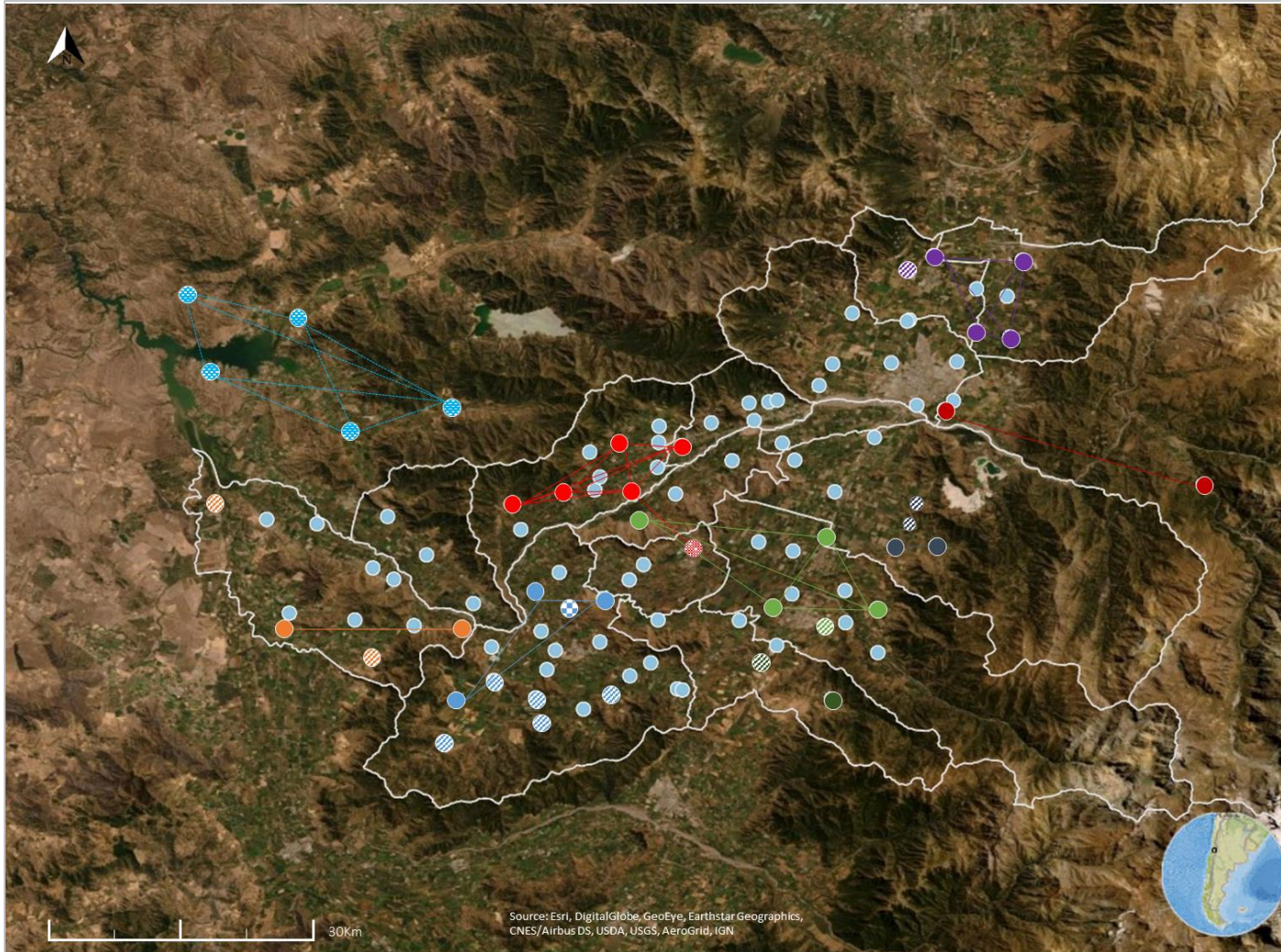


Figure 4.4).

According to Oyarzún (2020a) neoliberal restructuring in Chile since late 1980s has affected the forms of associativity in rural areas. In the Cachapoal province, this can be observed in conventional teachers' associations (Table 4.1), which are comprised by the National Teacher Union (Colegio de profesores, 35.6%) with its communal branches, and teachers' professional development programmes managed by the ministry of education on a central level (Microcentro, 18.4%; Red Maestros de Maestros, 4.6%). The small numbers of these associations seem to add to general trends of deprofessionalisation, that according to Nuñez (2016), are linked to processes of rural-urban out-migration. This is a common association that overlooks wider societal shifts and issues of rural governance that underpin that declining number and I will further explore on Chapter 5.

	Teachers	%
Microcentro rural	16	18.4
Red Maestro de maestros	4	4.6

Colegio de profesores	31	35.6
Other	14	16.1

*Table 4.1. Rural teachers' associations
Source data: 2018 Rural Teachers' Survey*

Nevertheless, these trends also suggest a shift in teachers' modalities of organisation. The 2018 Rural Teacher Survey has shown the emergence of other grassroots organisations funnelling teachers' diverse needs on the field (Appendix 24). These organisations are a good description of teachers' formal networked practices but also they indicate modalities and adaptations that teachers have developed to restructure rural teachers' professional development (Alexandre, 2016; Montecinos et al., 2014):

- **Communal Subject Department** [Departamento Comunal]. The communal subject department gathers teachers from rural and urban schools. It works as an updated version of the Microcentro, as it has replicated its structure using monthly meetings as main activity and its purpose of teacher collaboration and peer support. It only differs in its membership, which is conditional to the subject taught at school and its management depends directly to the local authority. This modality was only observed in the commune of Malloa in the south of the province. It represents a local adaptation to the CPD microcentros programme that considers new geographical for rural localities as they are no longer isolated in the province because of improvements in connectivity. It also responds to the increasing size of staff in rural schools which has being a motive for local authorities to close microcentros because they do not comply with the norm of only including single-teacher rural schools.
- **Teacher Welfare** [Bienestar Docente]. Teacher organisation that provides support to educators in the borough of Coltauco in matters of social and labour needs. Its organisation is similar to a mutual society, whose members come together with the purpose of raising funds to provide common aid or services. In Coltauco, its funds were used to support recently retired teachers to tackle with the undercut of pension funds and unexpected necessities for teachers in at-risk schools.
- **ARPA** [Activando la Resolución de Problemas en el Aula] It is a professional development programme that seeks to improve students' learning on problem solving skills by providing guidance and feedback to teachers. It was functioning on one borough (Rengo) but it was known to other local authorities and teachers in the province. It functions as educational consultancy in a partnership between the municipality and the university. The provider is Universidad de Chile, one of the leading universities in the country located in Santiago.

These grassroots organisations are important for rural teachers’ professional culture in a number of communes within the province. Most of these entities are novel organisations. The majority are informal, operated by volunteer teachers. ‘Bienestar Docente’ was mentioned by teachers in one commune (Coltauco) as an organisation that manages a collective fund from teachers’ donations in the commune and sporadic support from the local authority. Mitchell (2020) has described this type of teachers’ behaviour within accountability contexts as a process of ‘banding together’. However, their scope as organisations is circumscribed to a couple of schools and, furthermore, their scale is not similar to the microcentros that operated in multiple levels across schools in the province and national level with the Ministry of Education.

Teachers’ interactions with their peers required particular collaboration skills within the school in order for teachers to work in teams and school-based projects. The presence of teachers’ associations in the province is evidence of multiple interactions where teachers have collaborated in the implementation of initiatives between and within schools.

However, teacher collaboration requires the deployment of skills to receive and give support. Table 4.2 shows that less than half of teachers (48.8%) consider that they can easily offer their expertise in support for other peers. This has a stark contrast with teachers’ interest in local project participation (75.9%) which is likely a complex task than peer support. This suggests teachers’ interactions within schools require more effort than associating with others outside the school.

Teachers’ predisposition to collaboration echoes findings in studies observing the impact of accountability discourses in Chile (Oyarzún, 2020b) but not necessarily in every context as in-school support might vary in relation with teachers’ associativity culture. The individual drive of the teachers in the province can also be seen in their willingness to assume a position of leadership where more teachers stated that couldn’t do or struggle to do this. However, there is a large proportion of teachers that were willing to be on that position (43.7%) probably given the conditions of rural schools where teachers are more likely to be in route as headteachers than any urban school (Ávalos, 2004).

	I couldn't do this	I struggle to do this on my own	I do this with a bit of effort	I do this easily
Offer support to teachers	0 0.0%	11 12.8%	33 38.4%	42 48.8%
Interest in local project participation	1 1.1%	2 2.3%	18 20.7%	66 75.9%
Local leadership	5 5.7%	10 11.5%	34 39.1%	38 43.7%

Table 4.2. In-school support and peer interaction.

Teachers in the province seem certain of their capacity to receive support. However, Table 4.3 shows that nearly a fifth of teachers would have struggle in receiving support from colleagues from other schools and more than a quarter of teachers would have a similar experience in finding peer support within their own schools.

	I couldn't do this	I struggle to do this on my own	I do this with a bit of effort	I do this easily
Peer support from other school	1 1.1%	5 5.7%	8 9.2%	73 83.9%
Peer support from within school	3 3.4%	7 8.0%	16 18.4%	61 70.1%

Table 4.3. Out-of-school support self-efficacy.
Source data: 2018 Rural Teachers' Survey

There are a number of factors that could influence these results ranging from lack of communication channels to individual factors regarding to likeness amongst teachers. However, international studies (OECD, 2019; Paulo, Ariel, Sandra, and Thomas, 2017) have regarded Chilean teachers amongst the ones spending more hours performing classroom practice, a workplace condition that could negatively impact their capacity to associate with other peers.

Teacher-community relationship involves to organise and execute a number of out-of-school actions. Teachers' belief on their capacity to engage on this type of tasks is low since it is the item where most teachers have stated that they would struggle the most (Table 4.4), particularly to allocate external support. Kruger and Dunning (1999) indicate that this sort of behaviour could suggest that teachers that have collaborated or participated in activities have developed a level of expertise to assess the skills they require to accomplish a task without overestimating their own abilities.

	I couldn't do this	I struggle to do this on my own	I do this with a bit of effort	I do this easily
Support from the community	2 2.3%	18 20.9%	27 31.4%	39 45.3%
Allocate external support	2 2.3%	26 29.9%	28 32.2%	31 35.6%
Allocate local administration support	5 5.7%	22 25.3%	21 24.1%	39 44.8%
ITE institution collaboration	25 29.4%	15 17.6%	20 23.5%	25 29.4%

Table 4.4. Out of school engagement.
Source data: 2018 Rural Teachers' Survey

4.2.3. Rural teacher autonomy

It has been theorised by different authors in Chile (Martínez, 2017; Moreno, 2007) that rural teachers have more autonomy than their peers in urban contexts. This argument is based on single case studies (Salinas-Silva et al., 2016; Williamson, 2017) generating evidence that suggest less control from local authorities and more freedom in the process of curriculum enactment. However, the former argument implies less active engagement between teachers and local services which is highly criticised by Priestley and others (2015) because it suggests the idea of teachers developing as individuals with no interaction with society.

Teachers' autonomy presumes that geographical isolation in rural areas will situate rural teachers as less informed professionals which is an inaccurate assessment given that rural teachers' professional development programmes are well distributed across the country (Ávalos, 2004; Nuñez et al., 2016; Williamson, 2003), as well as the previously stated multiple channels of communication that teachers have with multiple rural stakeholders. Furthermore, in the following section data from the 2018 Rural Teachers' Survey shows how teachers in the province build relations with multiple counterparts from their positionality as teachers in rural schools.

However, more than 80.5% of surveyed teachers in the province consider to have more autonomy than their peers in urban schools (Table 4.5) which confirms this understanding amongst rural teachers. Since reduced control from authorities and geographical isolation cannot be situated as a practice, it is conceivable to assume that this is an evolving narrative that informs rural teachers' perception on their own professional practice.

Teacher autonomy				
<i>I consider to have more autonomy in my practice than a colleague from an urban school</i>				
	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	4	4.6	4.6	4.6
Disagree	2	2.3	2.3	6.9
Neither agree or disagree	11	12.6	12.6	19.5
Agree	18	20.7	20.7	40.2
Strongly agree	52	59.8	59.8	100.0
Total	87	100.0	100.0	

*Table 4.5. Rural teacher autonomy.
Source data: 2018 Rural Teachers' Survey*

Teacher autonomy can be a misleading conceptualisation on teachers' self-sufficiency (Danaher et al., 2014a). It functions under the assumption that teachers can be seen operating with independence from the school system (Gleadle et al., 2008a), particularly on the local level where teachers could

freely deploy their agency to contest regimes of self-regulation that were embodied in governmentality processes (Huxley, 2008).

However, teachers' perceptions on their own autonomy might accommodate practices that challenges overarching narratives. 60.9% of teachers in the province have disregarded curriculum guidelines to teach content as they think it should be taught (Table 4.6).

Curriculum-practice agreement				
<i>Sometimes I have disregarded curriculum guidelines to teach content as I think it should be taught</i>				
	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	11	12.6	12.6	12.6
Disagree	14	16.1	16.1	28.7
Neither agree or disagree	9	10.3	10.3	39.1
Agree	16	18.4	18.4	57.5
Strongly agree	37	42.5	42.5	100.0
Total	87	100.0	100.0	

*Table 4.6. Curriculum-practice agreement.
Source data: 2018 Rural Teachers' Survey*

The perception of autonomy and the practice of disregardment are approaches to practice that help to depict a rural education landscape where teachers can find different pathways to navigate overarching narratives in the rural education landscape as well as shifting trends in rural societies and localities. This involves curriculum enactment practices to adapt curriculum guidelines and make informed decisions (David Lambert and Morgan, 2010; Solem et al., 2013) but, moreover, it is more precise to link these practices with Roberts (1995) depiction of teachers' disregardment practices on guidelines and notions that do not accommodate to their preconceptions. In the Cachapoal province, surveyed rural teachers seem to align to that practice systematically.

4.3. Rural teachers' professional practices

In this section I have explored how teachers' practices (P. Roberts and Fuqua, 2021) contribute collectively to define a space as rural. The data suggests that the parameters that define a teacher in rural Chile: being employed in a public school, collaborate with peers and perform with autonomy should be expanded. Teachers might be located in a rural school but that situatedness does not suggest that they have become rural teachers. However, the scale of the collective actions of teachers in the province can be understood as a level of practice (Clare Brooks, 2021) that produces a synergy that is understood as rural but is sustained by a collective effort of unrelated, though intertwined, individuals.

4.3.1. Teachers' situated perspectives

Teachers' situated perceptions about their school contexts were explored considering a broad perspective on teachers' out-of-the-classroom practices (Clare Brooks, 2016). Here, the public understanding of the term territory (Duarte, 2017) became useful to help teachers think about their everyday practices with a situated focus (Kemmis, 2014). By asking about the territory, teachers were elicited to think about space on its most broad arrangement.

Table 4.7 shows teachers responses to several items indicating diverse perspectives on the territory. From networked (Sack, 1983; Milton Santos, 2017b) notions of space that considered place (PPTER22C), people and resources (PPTER22D) to notions where space could become a driver and motivation (PPTER22E) for action (Haesbaert, 2013b). Even a source of knowledge (PPTER22F) (Simon Catling and Martin, 2011; Martin, 2008c) that could enable professional practice and representational notions of space (Marcelo Garrido, 2013; H. Lefebvre, 1991) as a product that can be shaped in the impact (PPTER22B) and interaction (PPTER22A) of teachers with students and their community.

Variable	Question	Mean	R2
Meaningful places (PPTER22C)	It is the network of places that are meaningful to me or my students' everyday experiences	4.5	0.768378
People and resources (PPTER22D)	It is the network of people and resources that I have articulated to support my teaching	4.197674	0.629326
Motivation to teach (PPTER22E)	It is my motivation to adapt my way of teaching to my students' local needs	4.465116	0.601854
Spatial impact (PPTER22B)	It is a space where I can generate a positive impact	4.581395	0.542281
Source of knowledge (PPTER22F)	It is a source of knowledge for my professional practice	4.5	0.465068
School context (PPTER22A)	I see it as my school context, the space of my students and their community	4.430233	0.160054

*Table 4.7. How would you understand your territory here at the school?
Source data: 2018 Rural Teachers' Survey*

In their responses, teachers declared that at their schools they were part of a space where 'they can generate a positive impact'. As shown in Table 4.7, teachers agreed the most with this item in the survey. However, this response can be both the result of a performativity effect (Butler and Athanasiou, 2013) on teachers' answers or indication of teachers' high expectations (Seow, 2013) about the implications of their work at rural schools. The former indicating a fabricated response that is desirable in the context of education, the latter part of teachers' conceptions about their position as individuals and the school context in which they were situated.

Teachers generally agreed with these different perspectives, however, their views can be more diverse if certain perspectives are valued more or less by different groups of teachers in the province. The results on Table 4.7 (See R2 column) indicate that teachers' views on the territory as spatial impact of their practice, source of knowledge or as their school context were perspectives that were assessed similarly by different teachers, indicating a more common understanding. However, teachers' perspectives about their everyday experiences and places, people and resources, and teachers' motivation to teach divided teachers in the province. Figure 4.5 shows the different clusters of teachers in the province considering how similar their perspectives are.

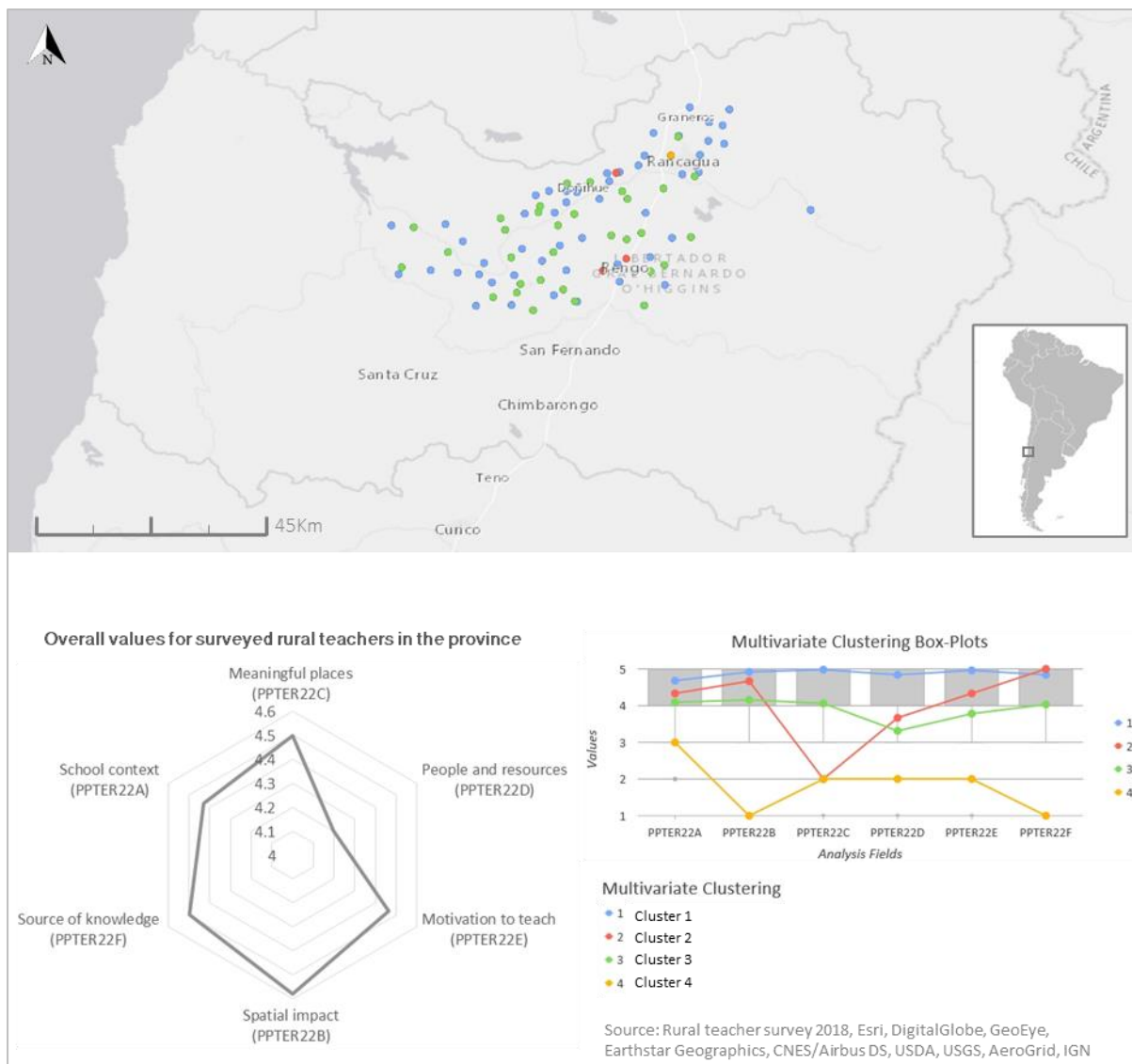


Figure 4.5. Territory multivariate clustering
 Source data: 2018 Rural Teachers' Survey

The following clusters have been left intentionally without a label since the focus here is to describe teachers' perspectives and not to categorise teachers according to awareness of the territory.

- *Cluster 1* (Blue). Teachers that declare multiple perspectives about the territory in which they are situated. For them the school context has a similar value as network of people or places as well as a source of knowledge for their practice. It is similarly, their motivation to teach and the space where they can generate a positive impact. Teachers in this group generally work in areas with less prominent urban centres nearby. They strongly agree with the entire range of perspectives and accounts for 57.47% of the surveyed teachers in the province.
- *Cluster 2* (Red). Teachers that show an above average attention to the spatial impact they can generate but are uncertain about the role of places in their territories. Their strong agreement on the meaning of the territory as a source of knowledge suggest that they understand the

importance of places for the everyday experiences of their pupils. The location of their schools in towns and cities peri-urban areas might indicate the more negative appraisal towards places that are generally marginalised in Chilean and Latin American urban areas (Henríquez et al., 2015). This group of teachers accounts for 3.5% of the surveyed teachers in the province.

- *Cluster 3 (Green)*. Teachers that generally agree with multiple perspectives but diverge by considering their territory to be less related with the people or resources that can be reach to support their teaching. Teachers in this group generally work in areas with less prominent urban centres nearby. This group accounts for 36.78% of the surveyed teachers in the province.
- *Cluster 4 (Yellow)*. One teacher in the province declare to disagree with the different perspectives on their territory. The teacher described the school was in the process of closure. Historically, pupils in the school were relatives to inmates in the nearby women's prison. However, changes in the location of the prison and decreased enrolment, impacted negatively in their capacity to allocate resources and maintain staff. The school was located on the outskirts of Rancagua, the capital city of the region.

The broad public understanding on territory as space was helpful to explore teachers' situated perspectives on school contexts. However, it is important to highlight that this observation does not necessarily provide data to indicate if teachers were able to produce territoriality in their own professional spaces or even if those perspectives constituted spatial practice. The following analysis chapters will present an in-depth exploration of these issues. Nevertheless, this data does indicate how dynamic are the perspectives of teachers about the spaces in which they are situated and how the interactions that teachers might have with other teachers and the community might be informed by issues that operate on multiple levels.

4.3.2. Teachers' professional communities

Teacher-community relations (Priestley et al., 2015) are commonly understood as a local level issue (Araya, 2011) in which teachers communicate with families of pupils or local officials in their everyday practices. However, the findings from the Cachapoal province indicate that teachers' practices operate on a rather multiscalar level than the local. Furthermore, 'the local' for rural teachers seems to be of a wider amplitude as it is not constrained to the locality but to the professional interactions that teachers build from the school. Teachers traverse the borders of the province by interacting with multiple out-of-the-school actors that shape schools as situated and complex social organisations.

The diversity of organisations and individuals in interaction with teachers in the province demonstrates the extent of teachers’ professional practices. Surveyed teachers in the Cachapoal valley have been interacting with 85 different stakeholders operating in the province, in activities that generated 187 pairwise interactions (For a detailed list see Appendix 24 and 25). The stakeholders shown in Figure 4.6 are divided in seventeen categories and five macro-categories. They are as diverse as the teachers’ agendas (Priestley et al., 2015) and the influences (Clare Brooks, 2016) of those interacting with the teachers, ranging from grassroots organisations and private businesses to public bodies.

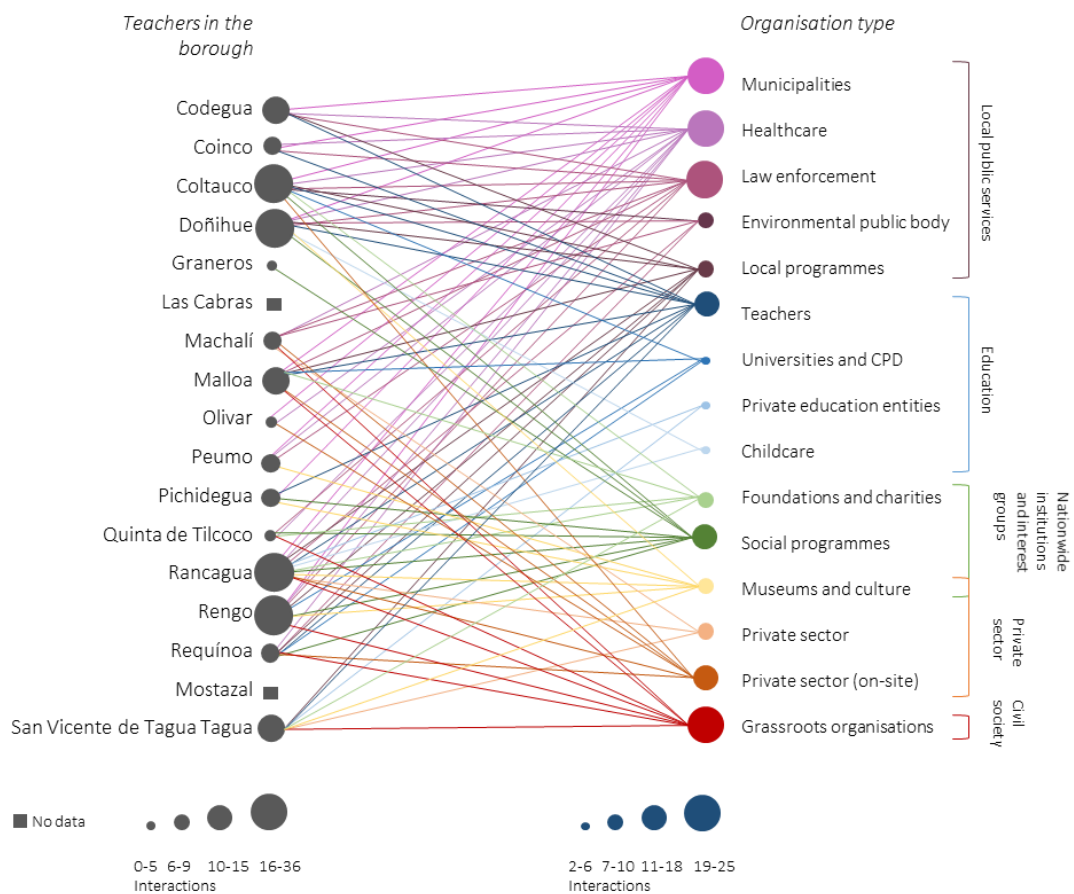


Figure 4.6. Interactions between teachers and organisations.
Bipartite network of teacher-community relationship. Source data: 2018 Rural Teachers’ Survey

Teachers’ interactions in the province have a particular focus on local governance. As the larger macro-category, it reflects rural education’s dominant municipal administration and public-oriented aptitude (Williamson, 2003, 2017). Local public services were clustered in five types of government and public bodies, which funnelled 81 (45%) unique interactions from teachers. The two most significant public bodies working with teachers are the local healthcare services and the police. Their interactions are based on locational proximity since schools, healthcare services and police stations are usually the representatives of public institutions in rural areas.

The third most recurrent public body that teachers take interest in is CONAF, the National Forest Corporation that runs national parks in the country. Their work is notorious in The National Reserve of Río Los Cipreses located in Chacayes. However, the bipartite analysis (Figure 4.6) shows that the extent of teachers' involvement with CONAF exists in the entire province, mainly through programmes of reforestation and environmental workshops that are jointly coordinated. This data on a province level supports previous observations from case studies in which the environmental issues on a locality occupied a central role in teachers' schools management (Salinas-Silva et al., 2016) as well as becoming the driver for teachers' practices (Bravo González et al., 2019; Guerrero and Reiss, 2020).

Nationwide public institutions, foundations and charities are part of the same category because, even though they have specific agendas in education, the implementation of their activities is similar. Teachers interact with them (13.3%) by participating or helping their students' families to receive the benefits of nationwide social programmes. The scholarship about teacher-community relations that engages with social services in Chile (Araya et al., 2013; Guzmán et al., 2015) positions the pupil and their families in Chile as subjects at risk and the sole stakeholder of the schools. These narratives visualise schools and teachers as intermediaries that facilitate access to a population that requires social (and sometimes medicalised) 'preventive intervention'.

However, the presence of the state in the different communes of the Cachapoal province is considerably limited in comparison with the local governments, a sign of decades of austerity measures and tokenistic decentralisation policies that have reduced its capacity (Avalos and Assael, 2006; Henríquez et al., 2015). Social programmes are generally managed by a central entity from Santiago – the capital of the country, as a part of a centralised regime in a unitary state. Most of the observed programmes have a focus on assistentialism and the CPEIP – the nationwide CPD official programme, does not appear as a partner for teachers in the province. The UNDP (2018) development report for Chile warns about the negative consequences that the political centralisation of the country has on the allocation of educational public services which are fully functional on Santiago but much restricted in the rest of the regions of the country.

Teacher interactions with the private sector (10.6%) are mostly focalised in specific spaces, particularly for those schools that are located in the area of environmental impact of a company. However, its influence as a sector is far larger if museums and zoos (5.6%) and, foundations and charities (5%) are accounted together as outreach strategies from private companies. On-site businesses have a particular stake in the province, as the region economy is driven by the agroindustry and mining operations on a larger scale than other regions of the country (OECD, 2014).

The education sector is a particular macro-category. Teachers working with their peers, accounts for 14.4% of the interactions, in combination with early childhood entities (nurseries) and for-profit organisations (education consultants) that are part of the education ecosystem but not formally part of the public education system. A number of teachers have differentiated themselves from private consultants by creating their own forms of organisation and informal gatherings that provide peer support. They have gathered around formal programmes or groups of colleagues with a same affinity. Teachers in different boroughs have created ad hoc groups to support each other in their assessment process.

Universities participation in teachers' interactions is marginal. This might be associated with the lack of universities in the region. Only one university (Universidad de Chile) supported by the local authority in one of the communes (Rengo) had a programme in implementation. ARPA (Activating Problem Solving in Classrooms) is a professional development programme that initially focused on Mathematical Problem Solving but it transitioned to a general skills programme focusing in problem solving for every teacher of any area and level (Felmer, Perdomo-Díaz, and Reyes, 2019). Thus, the programme gathers entire school communities and adds volume from teachers participating in different regions at the same time. However, this programme was conducted by one of the most influential universities from Santiago supported by one of the biggest and most urbanised municipalities in the rural system of the province. These two conditions are difficult to replicate and have not been observed for the rest of the teachers in the province.

Grassroots organisations have a significant participation in the practices of surveyed teachers (11.1%). Most teachers that have engage with these organisations have done it in leisure activities, which is relevant for teachers since these organisations are comprise by groups of people and neighbours whose activities constitute the basis of rural sociability. Rural sociability in the province presents itself through interactions with parents' association that organise social events or ad hoc committees such as the 'Christmas committee' that functions in a couple of communes to provide presents for all the children in an area or the 'wranglers clubs' that are particularly active for the Independence Day celebrations. These practices of rural sociability are similar in other international contexts (Corbett, 2020; Woods, 2010) and seems to characterise the relationship of rural teachers with their communities (Marcelo Garrido, 2013; Ifegbesan, Pendlebury, and Annegarn, 2009; Johnson, 1995).

People participating in grassroots organisations in rural areas consistently gather around problems that need a collective resolution (Woods, 2011). The Committee for Rural Drinking Water (APR) is an organisation that teachers in different localities have interacted with. The APR is arguably the most important association in rural communities. They are ad hoc committees comprised by volunteer

residents that aim to bring in drinking water to a local area within a rural locality. Their work involves applying to public funding, running fundraisers or searching for sponsors. Teachers from different places have engaged with the local APRs as a way to interact with the people that is active (G. White, Howell, and Xiaoyuan, 1996) in the area but also because APRs members are part of their students' families. According to OECD and UN (2018), civil society in Chile is not fully developed as a buffer between a large public sector and an influential private sector. Therefore, the presence of these organisations add dynamism and disentangle structural weaknesses that affect rural communities.

4.3.3. Teachers' out-of-the-classroom practices

The role of teachers performing activities in interaction with different stakeholders and agendas influences a combination of different practices. In this section I will elaborate on that combination of interactions as multi-layered practices (Childs et al., 2014) that show how teachers' professional practice (Clare Brooks, 2016) can be based on out-of-the-classroom practices and driven by a pedagogical focus on practice.

The surveyed teachers of the province show three major clusters of practices (Figure 4.7) based on the combination of activities, teachers' roles and stakeholders. I have grouped them together considering the extent to which an activity is initiated or led by a teacher.

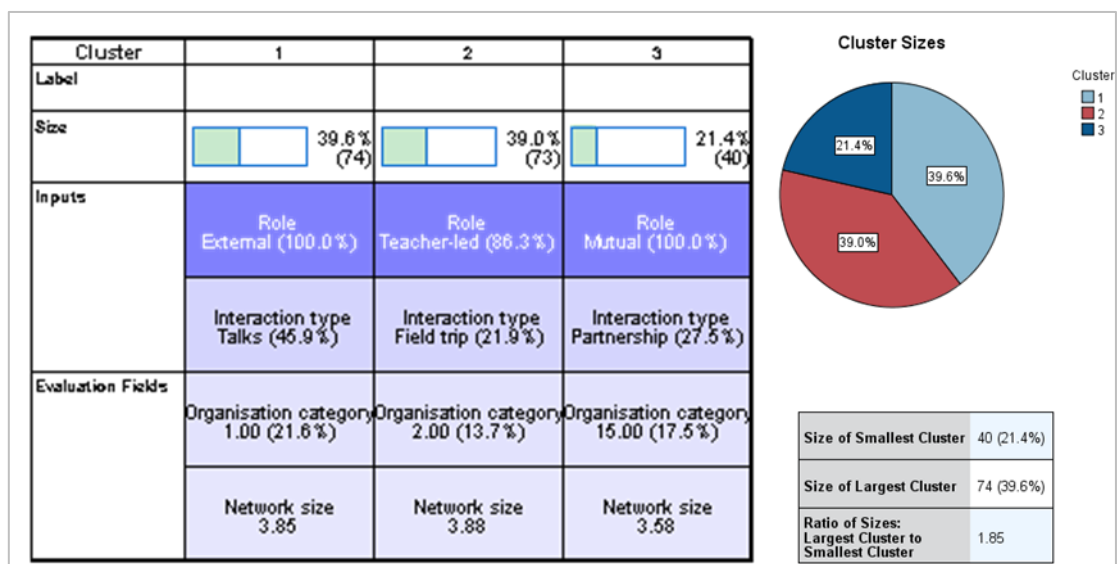


Figure 4.7. Teachers' practices cluster analysis.
Source data: 2018 Rural Teachers' Survey

Externally-led practices

Teachers' external-led practices involve the generation of engagement with the community mostly through talks as a strategy of communication developed by an external entity such as the local municipality which is the most recurrent counterpart of teachers in this case.

Figure 4.8 shows the most common type of interaction led by external organisations to the school: Talks are sporadic, non-recurrent actions and the preferred method of interaction (45.9%) of external organisations with schools which amongst other less-recurrent activities are frequently organised by the municipality (21.65). The police, private ventures that operate in the area of the school and, public bodies executing nationwide social programmes planned on a central level also participate in this group. These combination of practices accounts for 39.6% of teachers' interactions with others outside the school and amongst a group of teachers that in average have engage with 3.85 organisations as part of their professional responsibilities (See Appendix 25).

Teachers' engagement with external-led initiatives might generate further uncertainty on teachers as the management and control is driven by organisations that not necessarily act as partners but providers of a service. Furthermore, this type of practices can pose a complex scenario for teachers that do not possess local networks or knowledge of organisations operating on a particular area.

However, even though this type of practices are external-led, they require from teachers a certain level of embeddedness as part of the work of teachers for Garrido (2013) is to cultivate relations with families and people that might offer support to their teaching. In these cases, it is possible to consider that teachers are not necessarily 'waiting' for the organisations to appear at the school but more about teachers' capacity to learn about the situatedness of their schools (Lave and Wenger, 1991) the roles that expected from the teacher and what can be anticipated as possible support from the people and organisations working in a locality.

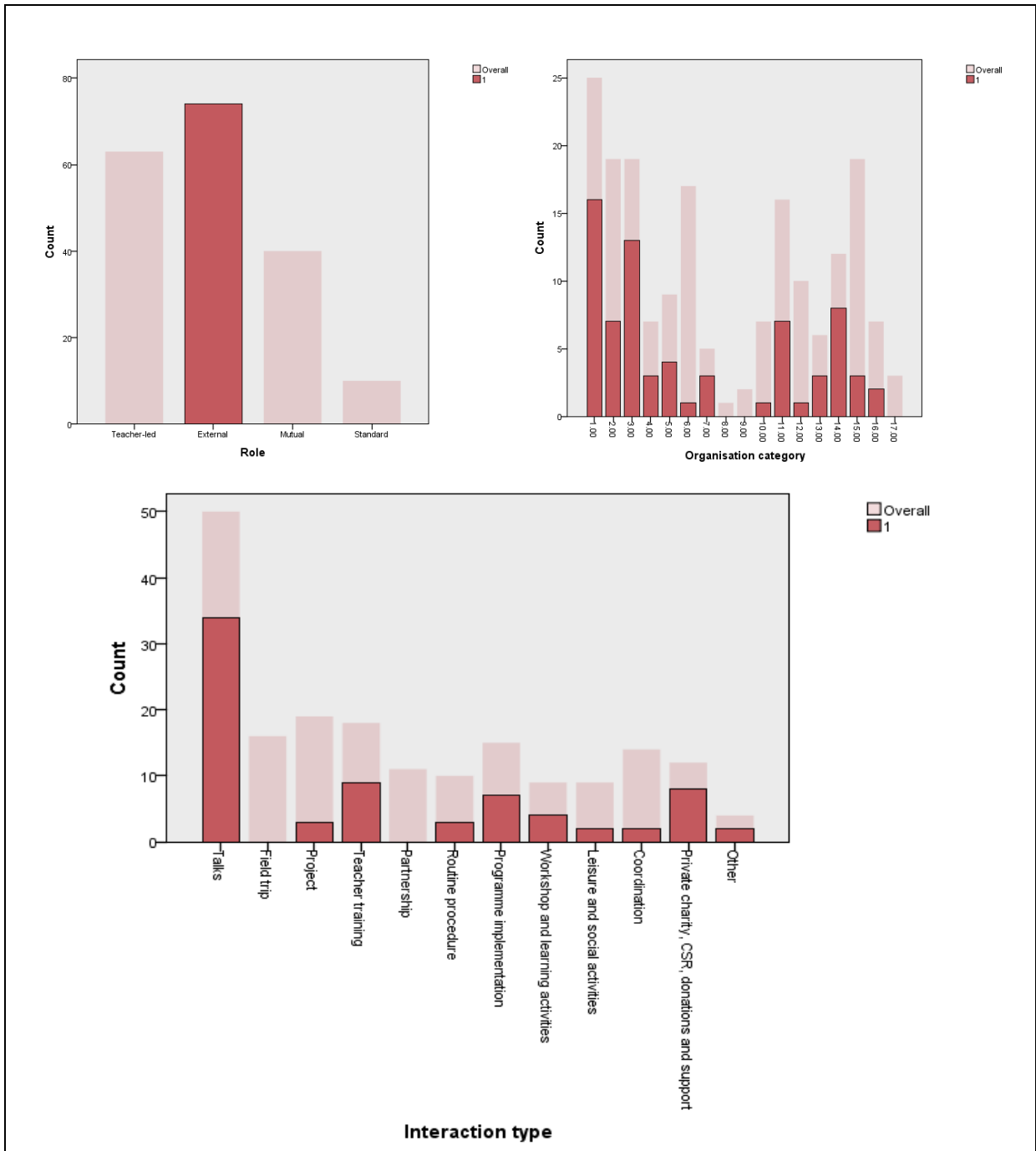


Figure 4.8. Teachers' external-led practices.
Source data: 2018 Rural Teachers' Survey¹

¹ For a detailed list of the organisation categories by activities performed with teachers see appendix 25.

Teacher-led practices

Teachers' practices in this cluster are teacher-led which involves initiatives that were created by the teachers but needed further support to continue. This cluster also includes teachers' routinised practices within schools such as clerical work or administrative responsibilities that require to contact other support organisations. The most common activity within these practices are fieldtrips. However, these practices are diverse in relation with the counterparts that teachers relate with which range for all the categories of organisations not just the municipalities.

This set of practices focuses on teachers' engagement with their communities. Although teachers focus on the completion of tasks at schools, this set of practices should not be mistaken with school administration practices. Some of the words that teachers used to describe their role were 'organiser, colleagues, collaboration, facilitator, coordinator'. Thus, it is about the realisation of projects or individual initiatives that teachers would like to accomplish in the exercise of their status as educators.

This might challenge underlying assumptions of the teachers-community scholarship (Blum, 2012; Simon Catling and Tanner, 2020; Willy et al., 2019), in particular the idea of the 'networked teacher' (Galdames and Gonzalez, 2016) which operates with the underlying assumption that – for teachers, linkages with the community are there for the taking. The practices declared by teachers in the survey indicate that rural dwellers' locational proximity to the school is no guarantee of interactions between teachers and other individuals. Furthermore, the limited interaction that was observed in the survey between teachers and organisations or individuals based on the same locality as the school, also indicates that different rural localities might not necessarily perform as the conventional images of rural sociability suggest (Corbett and Gereluk, 2020) or even rural communities might not necessarily exist on the first place and teachers are just interact with a collection of individuals without common history, shared experiences or kinship (Woods, 2011).

The practices led by teachers are relevant because of the scope of organisations and individuals in the rural localities that are centralised in the school. By doing this, the findings in the survey suggest that teachers in the province become providers of shared experiences for people in rural areas. The most common type of interaction in this set of practices are fieldtrips (21.9%) followed by other similarly frequent activities such as talks, projects, routine procedures and teacher training. These activities are mostly generated with the local GP and healthcare services (21.9%) such as the vaccination programme, that requires active surveillance and planification for rural areas but, for some teachers, are highly internalised activities as standard practice. Another similarly frequent partner is Conaf, the national environmental body which is followed by grassroots organisations and museums. These

combination of practices accounts for 39% of teachers' interactions with others outside the school in a group of teachers that in average have engaged with 3.88 organisations on recent years as part of their professional responsibilities.

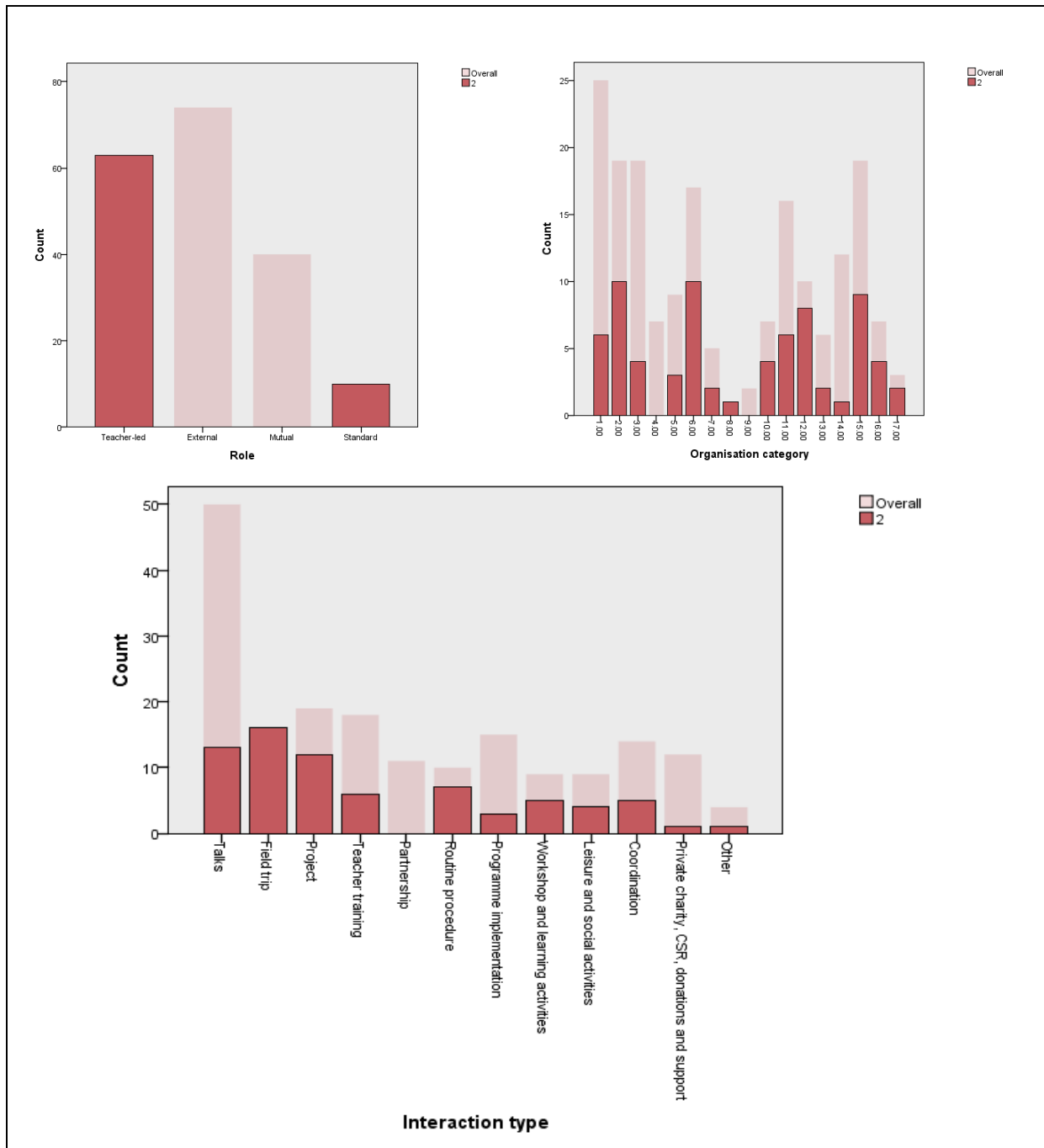


Figure 4.9. Teacher-led practices.
Source data: 2018 Rural Teachers' Survey

Co-led practices

Teachers' practices in cluster 3 are mutually organised between school stakeholders and teachers, it largely relies on partnerships as a way of interaction, and it further specialises in interactions with other teachers, grassroots organisations and other entities of the civil society.

This is a cluster of practices that is built on initiatives that indicate a balanced contribution on either side of what constitutes an interaction which suggests relations of reciprocity and solidarity (Herzog, 2018) between teachers and their partners.

The relevance of this cluster of practices is that it shows how teachers' expertise is recognised by an external agent. Collins and Evans (Collins and Evans, 2002, 2007) have argued that in the acquisition of expertise, there is a process of validation of a specific set of skills or knowledges in which an agent has been able to specialise in and demonstrate its further contribution to others. The group of teachers' practices in this cluster represent a complex set of procedures that require from the external partner a certain level of trust or reliance from the teacher.

The most common type of interaction in this modality are partnerships (27.5%) followed by coordination activities and programme implementations. These activities are collaborations between teachers and mainly grassroots organisations (17.5%) followed by activities in coordination with other teachers and Conaf, the national environmental body. However, teachers interact on a similar frequency with a wide array of other organisations ranging from local governments to the private sector with the exception of higher education institutions and education consultants. This combination of practices accounts for 21.4% of teachers' interactions with others outside the school in a group of teachers that in average have engaged with 3.58 organisations as part of their professional responsibilities.

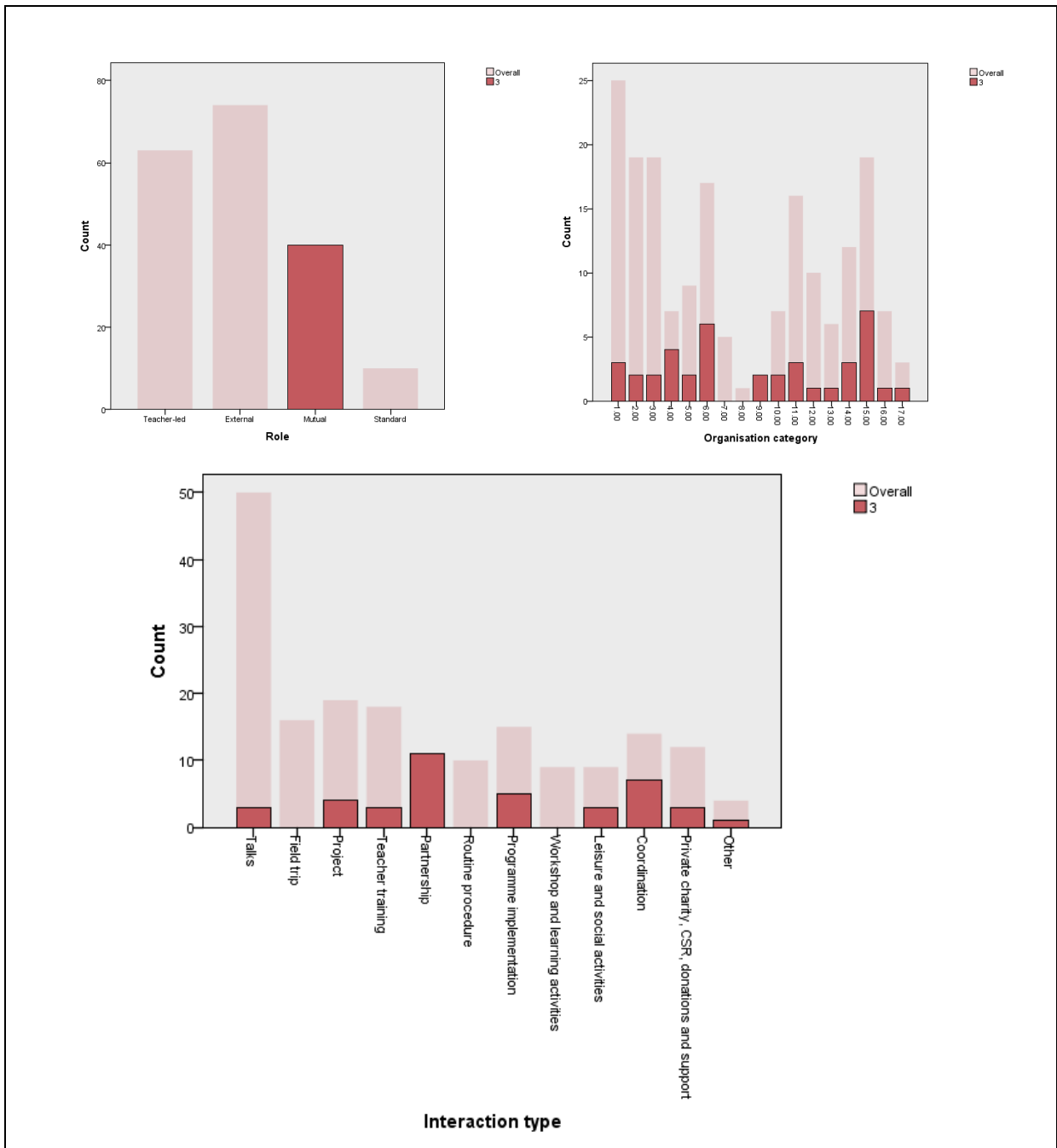


Figure 4.10. Co-led practices.
Source data: 2018 Rural Teachers' Survey

The three clusters are sets of practices that are not mutually exclusive and explore the scalar (Milton Santos, 2017a) notion of teachers' multi-layered expertise (Childs et al., 2014). The three clusters shed light about the simultaneity of roles (Clare Brooks, 2016) that teachers take within schools. Even though those roles and practices are circumscribed to what occurs within the classroom. The survey has provided then, with evidence of the multitude of actions, performed by teachers, that are needed in order for classroom practices to happen.

4.4. Discussion and conclusions

This chapter has explored how teachers contribute to define a space as rural. It involved unravelling complex relationship between being labelled as a rural teacher by the membership to a particular school subsystem and becoming part of multiple communities that expect teachers to perform accordingly to their role and status as teachers of schools embedded in rural localities.

Nevertheless, the analyses on teachers' perspectives and practices show that teachers are not unidimensional and how their practices are not confined to one single space within the classroom. By grouping practices instead of teachers, I draw attention to the problem of simultaneity that comes from educators' participation in diverse activities, sometimes in multiple and contradictory roles. This notion of simultaneity is key to understand the complexity of teachers' 'rural' interactions. Brooks (2016, p. 31) reflects on this notion, indicating that:

Individuals can operate within a culture without necessarily adhering to all of its practices and ideas. So whilst working within a school, teachers may not agree with all the policies and practices of that school, but that will not stop them being an active member of the school culture.

Brooks (2016) argument echoes Priestley's (2015) case for teachers' agency, as – he argues, teachers that imagine multiple trajectories are likely to achieve agency more readily than others that do not. Priestley (2015) sees this as matter of personal aspirations but Brooks (2016) elaborates on it in an imbricated system of interactions where different cultures of influence are overlapping in teachers' practices. The latter incorporates a non-linear understanding on teachers' professionalism that better serves the purpose of characterising teachers practices in South America, as a space of structural disadvantages where scaled up influences are normally seen as oppressing structures (Paulo Freire, 2017; Paulo Freire and Giroux, 1985) unable to be intervened by individuals' thinned agency (Klocker, 2007). Different groups of surveyed teachers in the province demonstrated how they were able to navigate structures seamlessness as they contributed to build practice architectures individually but had certainly an impact on the overall understanding of rurality in the province.

In the following chapters we will move from an overall view on the rural landscape of the province, as was described in this chapter, towards the processes that produce territories as the expression of situated practices (D. Britzman, 2003; Clare Brooks, 2016; Kemmis, 2014) and teachers' agentic role within their schools (Priestley et al., 2015).

These are multiple processes that reflect the diversity of practices within the province and that I have organised using Santos (1994, 1996, 2000) and Haesbaert (2013b, 2013a, 2021) approaches to understand how territories are built and rebuilt in simultaneous processes of territorialisation and

reterritorialisation. Each in-depth case studies will explore a different aspect of these processes in connection with the particularities and uniqueness of their teachers' practices.

4.5. Outline for the case studies

Three teachers from the Cachapoal province participated in the study to build the cases analysed in the following chapters: Carlos, Catherine and José (Figure 4.11). The main criteria to consider their participation after volunteering during the survey was their network size and the context in which their schools were embedded (Table 4.8).

	Carlos	Catherine	José
Network size	4	5	6
School location	Rural	Rural	Periurban
School size	71	26	380
Qualification	Primary teacher	Primary teacher	Secondary teacher
Multilevel classroom	Yes	Yes	No
Expertise	Generalist	Special Educational Needs	Subject specialist
Professional trajectory	Nearing retirement	First-time headteacher	Early career
Age	65	45	31

*Table 4.8. Case teachers.
Source data: 2018 Rural Teachers' Survey*

Carlos accounts about his own practice as a primary teacher were related to his expertise as a teacher with past experience in five rural schools of the two neighbouring communes of Codegua and Graneros. Carlos participated in multiple roles as headteacher, member of the microcentro and educational consultant, however, the stories he told gravitated towards the relationship with his peers in the microcentro. The interviews with his extended network reflected on this as well, as the officials that coordinated the two local school systems that neighboured the school recognised the work that has been done in the school by Carlos and his colleagues.

Catherine demonstrated a similar synergy with the municipal administration of the school. However, her network included different teacher-community relationships with rural dweller organisations, local companies and state agencies, her membership to the local microcentro did not appear with the same relevance as with Carlos. Catherine's interactions were connected with her position as headteacher of the school. In this position, she administered a network of partners and collaborators that were drawn to the narrative that Catherine and her colleagues created and appropriated from the history of the locality.



*Figure 4.11. Depiction of Carlos, Catherine and José by Julio Jeanmaire – local artist.
Artwork commissioned in 2020 for the return of results process.*

Contrary to Carlos and Catherine, José did not declare any relationship with teachers' professional organisations or official representatives of the local authority of education. His interactions were focused on grassroots organisations such as the steering committee for the Teachers' Union in his commune. José was new at the school where he was surveyed but he was also working in another rural schools of the province. José facilitated the interview with the president of the teacher union as he was José's colleague (and mentor) at his second school.

The demographics of the three case teachers are also relevant, as each of them is part of different age groups amongst the surveyed teachers in the province (Figure 4.12). Carlos was 65 at the moment of this study and initiated his process of retirement in 2018. Catherine (45) was taking the position of headteacher in her school for the first time in her career, and José (31), had recently found a stable position after working for several years as a supply teacher in different schools. This demographic data, although not generalisable, it is significant in the context of the case teachers, as it reflects different moments on their professional trajectories.

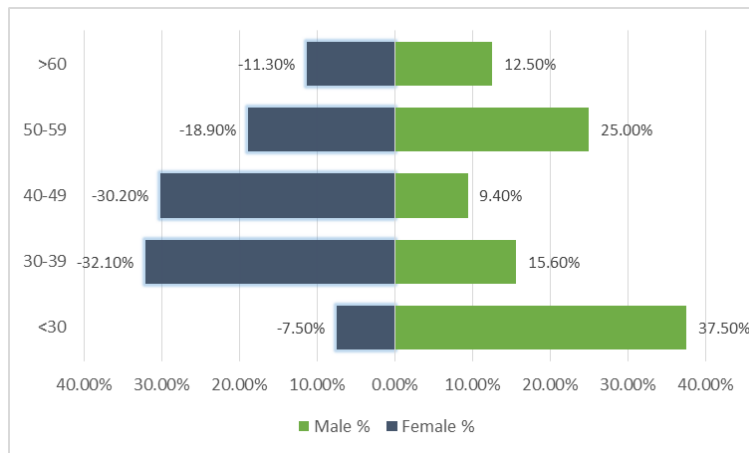


Figure 4.12. Rural teachers' demographics in the Cachapoal province.
Source data: 2018 Rural Teachers' Survey

The landscape of the localities in which Carlos and José are working have slight variations as they are both part of the central valley of the province. Carlos' school is located in the northern cone of the province and José's in the peri-urban area of the capital city. Catherine's school is a spatial outlier in the distribution of the rural school system of the province. It is located in a gorge in the 'pre-cordillera', an area within the Andes Mountains of low elevation (2034 metres above sea level), suitable to live in, cattle raising and next to a copper mining industry cluster.

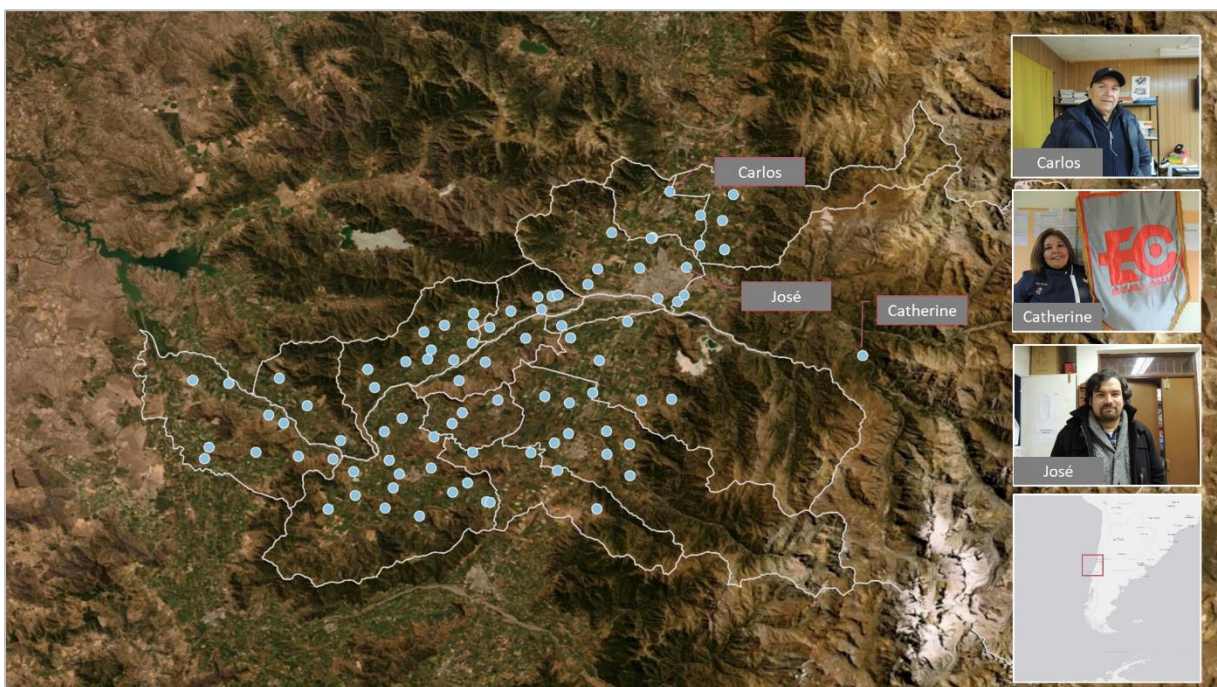


Figure 4.13. Rural schools surveyed in the Cachapoal valley - case selection.
Source data: 2018 Rural Teachers' Survey

The school context for the three case teachers vary in relation with their relative location in a rural-urban continuum (Núria García Ramón, 1995; Woods, 2011; Woods and Heley, 2017). Carlos (Figure 4.14– A) has taught pupils from two neighbouring communes in the school of Callejones located in the

old colonial road that demarcates the border of its communes' jurisdictions. This is a space of transit and rural-urban migration that has experienced rural school closures in recent years. Catherine's school is embedded in the locality of Chacayes (Figure 4.14– B), her pupils are relatives to the families of the historical settlers on the gorge and the sons and daughters of the park rangers for the natural reserve that neighbours the school.

José described his school as urban (Figure 4.14– C), even though until 2018 it was classified as rural by the Ministry of Education. The school is located in the fringe of the capital city of Rancagua and for the past four years the surrounded area of arable land was absorbed by the rapid urban sprawl of the capital city. According to José, both its students and teachers are from the capital city and the new developments in the area. José's school was reclassified as urban in 2018 during the fieldwork of this research. Thus, it provides an interesting insight into rural-urban transition as well as how the rapid changes and pressures that rural areas are experiencing in the country are affecting educational processes (Nuñez et al., 2016).

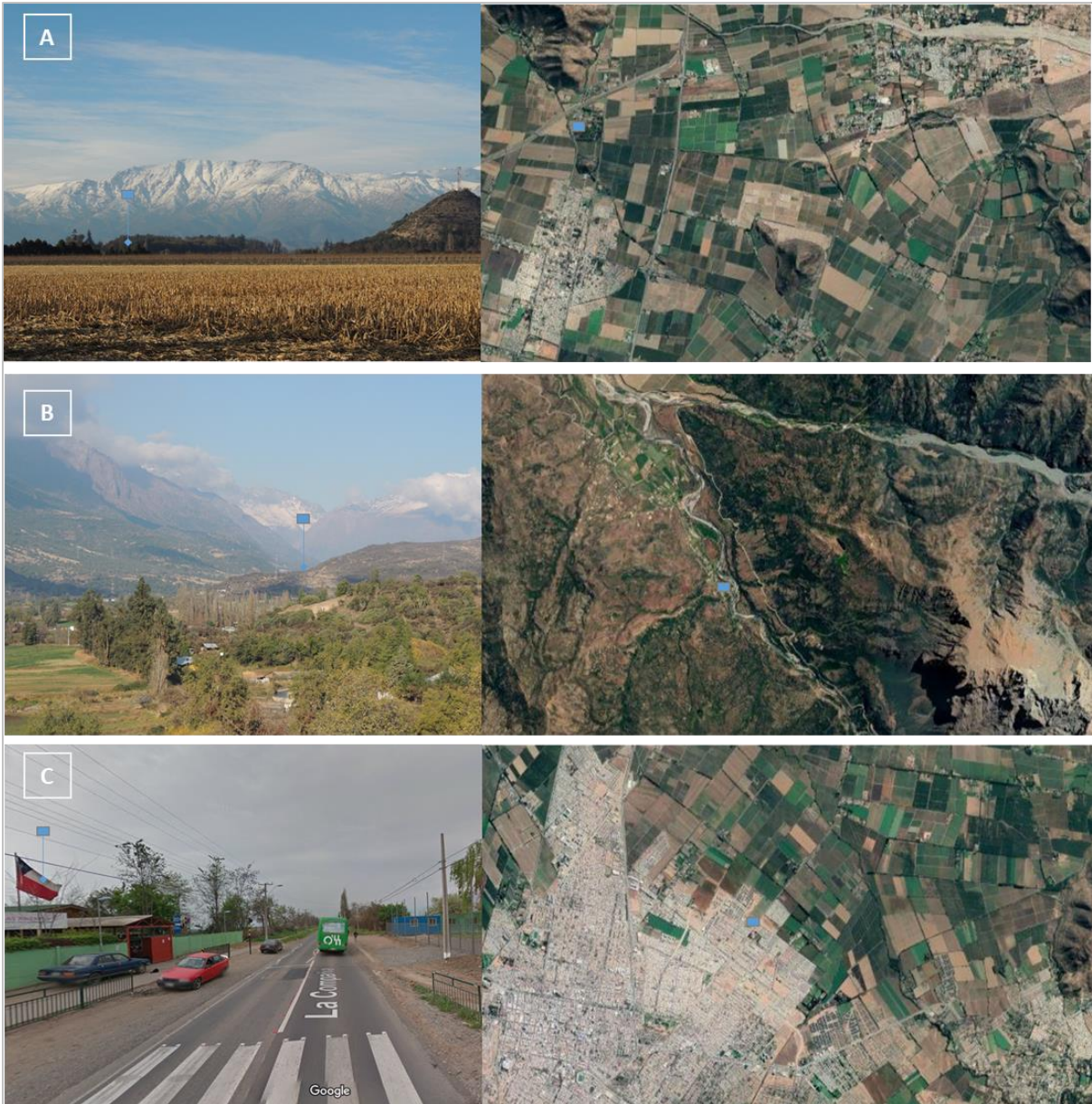


Figure 4.14. Teachers' localities.
José school location Image source: Google street view; Satellite images: Esri.

The rural-urban continuum describes the interface (Woods and Heley, 2017) observed in different spaces of the province, particularly in the relation with the regional capital. However, as established in the following analysis chapters (Chapters 5, 6 and 7), this understanding still builds on a rural-urban dichotomy (Henríquez et al., 2015) that differs from the hybrid rurality (Halfacree, 2009; Milton Santos, 2017b) that the case-teachers in this study have experienced and contributed to create.

5. Chapter 5 A professional culture at risk: De-territorialisation of rural teachers' practices

5.1. Introduction: Carlos

Carlos' case shows how a professional culture of rural teachers has been contested by a shifting new rurality that has deterritorialised practices and projects of education (Figure 5.1). The professional culture in which Carlos participated coalesced into the idea of the microcentro, a school-based CPD programme for rural teachers working in geographically isolated places of Chile. It functioned as an itinerant space with no fixed location that rotated from one school to another but it was depicted by Carlos as a professional space held tightly together by its participants.

Carlos has been a primary school teacher and headteacher in most rural schools located in the three northernmost communes (Graneros, Codegua and Mostazal) of the Cachapoal province. This is a globalised space with a new rurality (OECD, 2014) shaped by fluid links with the rest of the world due to its booming agroindustry and mining activities. Its improvements in infrastructure and investment have even challenged the conventional representation of rural localities in the province as isolated places (Henríquez et al., 2015).

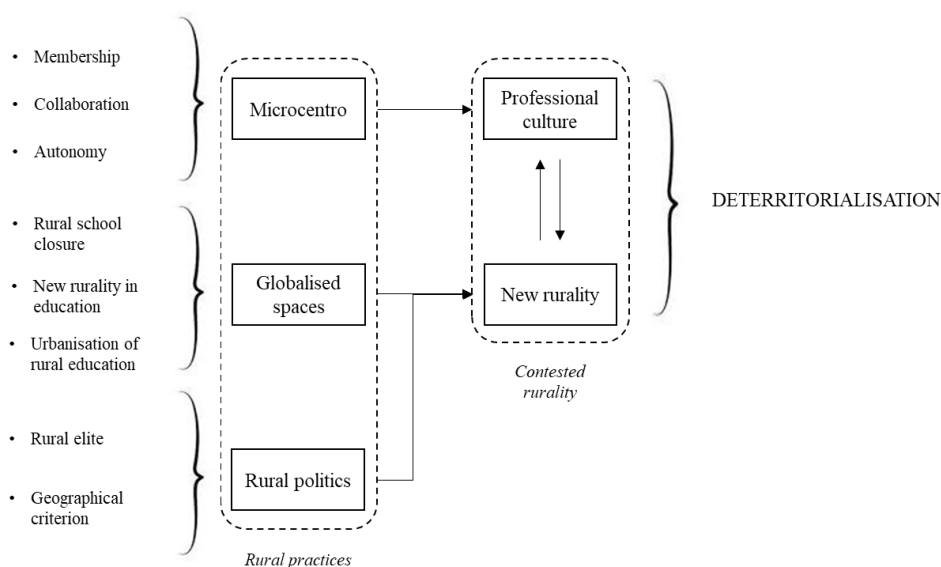


Figure 5.1. Deterritorialisation.

The interplay between the rural professional culture that Carlos depicted and the shifting society of a new rurality has been explored through the notion of deterritorialisation (Haesbaert, 2013b; M. Santos, 1994). The de-territorialisation process has been understood as a movement of general disintegration of the networks forming a particular space (Deleuze and Guattari, 1996) but, moreover, it is a process that shows a new territoriality (Haesbaert, 2013b). Findings from this research have

shown how the educational landscape of the Northern Cone of the province has sustained a receding process for rural schools with rural school closures and the microcentro being disbanded. However, the significance of the deterritorialisation process resides in how rural teachers, as part of these rural transformations, were ultimately incorporated in the spatial sphere of influence of other agents articulating the territory i.e. with the microcentros gone, teachers' professional development, and its resources, passes to the local educational authorities and a new generation of rural teachers who might not necessarily continue with the professional culture in which Carlos participated as a rural teacher.

5.2. Rural professional culture

The professional culture that emerged from the microcentro was hybrid – a product of interconnected flows similar to the conceptualisation of place argued by Massey (1994). Its connections echoes Brooks (2016) multi-layered notion of culture as Carlos teacher's practice was greatly influenced by the mesosystem of the microcentro, that fostered the creation of 'shared understandings and expectations, and agreed practices' (Clare Brooks, 2016, p. 29). Furthermore, Carlos practice exemplifies how effectively 'individuals can operate in more than one culture simultaneously' (Clare Brooks, 2016, p. 31). The microcentro facilitated the connection of teachers with other colleagues at different schools. These interactions generated a similar social dynamic to the one developed in subject departments at schools (Mitchell, 2016; Puttick, 2016), providing access to subject expertise and personal development.



Figure 5.2. Carlos Osorio Gonzalez, teacher at La Cantera School in Callejones, Codegua.

Carlos has been appointed headteacher in several public rural schools in Codegua at times when they were falling behind or were at risk of closure. His ability to turn the process around was recognised by the local educational authority that he worked with for several years. Carlos argued that most of his expertise had developed from, and was modelled on, his colleagues' experiences at other rural schools in the area.

Carlos was aware of other teachers' practices because of his professional journey working in various schools, but he came to know them mainly because he and his colleagues on the Northern Cone used to participate in a nationwide CPD programme called 'Microcentros Rurales' (Rural Microcentres). The microcentros were groups of rural teachers from schools in a local area that gathered once a month. The aim of the programme was to tackle rural teachers' geographical isolation by facilitating a space for them to share their experiences and contribute to their own professional development. The programme was developed in 1992 for rural teachers working in single-teacher schools and/or composite classes to foster rural students' learning. By 1995, the programme had spread across the country to cover all targeted schools (Ávalos, 2004).

In the 2000s, the programme reached national coverage as a powerful device that quickly became intertwined with what it meant to become a rural teacher (Moreno, 2007), as well as an object of pride amongst the communities of rural teachers as the rural programme serve as a positive example to other CPD programmes in urban areas of Chile (Williamson, 2003). Even though Carlos' career pre-dates the beginning of the microcentro programme, his narrative as a rural teacher is articulated by his experiences in this professional space. He confirms the positive assessments of previous research on the programme (Vera-Bachmann and Salvo, 2016), which is still in operation today, as one of the few programmes that fosters professional development through teacher autonomy in local areas.

However, the findings from this research suggest the development of a slow and concealed process of de-territorialisation (Haesbaert, 2013b) that is threatening the stability of the microcentros and, with it, the professional culture of rural teachers. The process is visible in the closure of rural schools but it is underpinned with contested notions of rural governmentality at play (Foucault, 2009). In the case of Carlos this unfolds as an interplay between geographical and efficient criteria of how to understand rural education.

5.3. The Microcentro

Membership, collaboration and autonomy are three distinctive components making rural teachers' professional culture possible. These practices were set and shaped in the particular site of the microcentro.

5.3.1. Membership

Carlos was a member of the microcentro “Craftsmen of the rural world” from Codegua. They held meetings on the last Tuesday of every month. On that day, teachers were allowed, by a ministerial resolution, to leave their schools and travel to the school that was hosting the meeting.

According to Carlos, even though the main activity of the microcentro was the monthly meetings, its influence extended much further than that. It was more than a CPD programme because it became the organisational embodiment of the group of rural teachers working in the surrounding area. As Carlos described it, a day at the microcentro involved a mixture of social and professional development activities.

We were rigorous with our plan for the day. We always followed a schedule. There was a moment to welcome every teacher [coming to the meeting]. The headteacher and the staff from the hosting school had to greet each arriving teacher, offering them some small present. We rotated the role of host every month. So, we generated some sort of a competition to make the next meeting nicer, bigger and more interesting. Then, we had a moment to be social followed by pre-scheduled technical work. We were visited by our assigned supervisor who communicated some official instructions, curriculum guidelines and facilitated lesson planning analysis. Then, we had one hour for lunch – lots of comradeship at this time. This was usually followed by lesson planning during the afternoon. We discussed what we were going to do for each school subject for the rest of the month. Sometimes we ended the meetings very late. Then, we wrapped-up with a farewell coffee. We used to take back several [resources] to our desks in our schools to work for the rest of the month.

Carlos interview

The teachers’ routine at the microcentro followed a specific sequence. The beginning of the day – divided into the greeting at the entrance and the social interaction, which was usually conducted around a communal breakfast, was recognition of both the host and the visiting colleagues. This moment was about the importance the teachers attributed to their group membership. The role of the host was to conduct the gathering with a sense of rituality that had to be followed, regardless of school affiliations. All the teachers were all recognised as members of the same territorial group. Nevertheless, their pursuit of distinction when they rotated the role of host emerged as a way of communicating their individuality within the group. Carlos signalled it with a playful note as a matter of “competition” that can be understood as a marker for a hospitable environment created by the interaction of peers and the teachers’ friendly mood in this formal space.

Not any teachers, nor can any rural teacher be part of a microcentro. Rural teachers working in schools with larger enrolment and more teachers – generally located in the urban-rural fringe, are not part of the programme as it is expected that more students will not require composite classes like in smaller communities. The composite class becomes then the marker that will define rural pedagogy.

The multigrade class, as a criterion of membership, has become more important than belonging to a single-teacher school. In the 15 boroughs that were surveyed in the province only one school in the locality of Los Maquis had a single teacher accompanied by a teacher assistant. Carlos' school has 10 teachers in its payroll for 71 students and is structured using composite classes. This is not uncommon as rural schools have received more resources in the past decade given its elevated number of students that are part of vulnerable groups. Rural teachers then are not necessarily isolated within their schools as they are accompanied by other colleagues or one or two itinerant teachers that move from one school to another to teach English as second language or Physical Education.

5.3.2. Collaboration

The significance of the microcentro for the teachers was distinctively associated with its potential to foster collaboration in the form of external and peer support.

After the social opening, a day at the microcentro continued with a period of "technical work" conducted by an assigned supervisor from the provincial authority. Carlos valued the role of the supervisor as external support for the teachers. They welcomed the supervisor to the microcentro, understanding his role not only as liaison with the Ministry of Education but also as a facilitator in a space that was under the teachers' control.

We had a supervisor from the provincial authority that gave us all the technical support we asked for. Every month, they came to teach us something so we could put it into practice, e.g., lesson planning, different types of lesson planning, assessment methods, how to assess mathematics, language, physical education. They always brought us learning materials. We used to come back to our schools with our hands full of learning materials. I liked this because when I go to a meeting, I like to bring something useful back – otherwise, it is just a waste of time.

Carlos interview

In this particular group of teachers, peer support practices were relevant and their purpose was two-fold. On the one hand, teachers shared experiences at the microcentro, and on the other hand, they made partners to make their ideas possible.

The microcentro granted teachers access to expertise on subjects they felt unprepared for or needed support and encouragement for. Initial teacher education for primary teachers in Chile is diverse. Even though it follows a similar structure across the country, there are differences concerning the emphasis that a specific programme might have on subject knowledge or teaching methods. In this case, teachers relied on the expertise that other colleagues had developed as part of their personal affinities towards a particular subject or topic.

C: I was always bad at composition. It was always my personal defect and I acknowledged that. But there were other colleagues – they were like poets. They did amazing things in the school subject of

language. So I was always asking them “Can you share this with me?”, “How can I do this and that...” So, I began by taking all that expertise from my colleagues.

V: Was it something mutual? What are you good at?

C: Sure, mathematics! We did problem-solving in mathematics ... So, I suggested they take the children outside the classroom and do measurements, to calculate standardise values and create their own types of measurement.

The teachers’ work was sustained in an ongoing process of mutual validation. The teachers’ experience-based expertise became relevant when it was recognised by another teacher or the group in the microcentro. This theme was a response to the teachers’ ITE flaws, but it suggested teachers’ had an interest in learning from each other. Carlos explained that the “technical work” at the monthly meeting could also be in the form of a workshop conducted by microcentro teachers who had been appointed to talk about one specific classroom problem or to offer insight into a specific topic in the curriculum. This circulation of knowledge amongst teachers at the microcentro represented a dynamic of professional development that tackled teacher isolation, just as it was originally intended to in the national aims of the microcentro programme.

5.3.3. Teacher autonomy

However, Carlos’ accounts of the microcentro activities suggested that the teachers had collectively moved forward from the original requirements that the Ministry of Education set out for the programme. Carlos’ narrative is populated with plans and jobs at different schools and places that were possible because of the nurturing environment created by his colleagues. Teachers made use of the social opportunities at the microcentro to find partners or seek help to realise their ideas and allocate the little resources that were available to them.

C: Our lack of resources was everlasting but sometimes we organised fundraisers – small events to generate some revenue. We sold fried fish, we organised raffles, etc. We generated resources so we needed some accountability to organise ourselves. We started to use an accounts book. We managed the accountability processes: how much we were going to spend from our money and where we were going to invest our resources ... Those resources were managed by each school but we rotated the meetings and shared the microcentro expenditure.

The teachers’ financial expertise seems to have played an important role in their experiences as rural professionals. The role of project manager was seemingly important in the way Carlos depicted being a rural teacher; words like “accountability”, “bookkeeping” or “investment” were not linked to accountability rationalities but to “rural pragmatism” as he mentioned during the shadow observation, as they needed the resources for the schools. As public schools were always underfunded, they did not expect the government to intervene. Thus, the microcentro became the place to make projects happen.

5.4. Teaching in the spaces of globalisation

Teaching in the spaces of globalisation has become particularly challenging for the practices and culture that Carlos has depicted as part of his professional career. New rurality (Nuñez et al., 2016; Ramírez-Miranda, 2014) has manifested in education as a deterritorialisation (Haesbaert, 2013b) process with the introduction of austerity measures that are 'efficient' in the use of resources but induce the closure of rural schools that have a reduced enrolment. This is perceived as an irreversible trend by some local authorities of education in the northern cone of the province that, in turn, generate further incentives to depopulate rural schools by transporting pupils from their original rural settlements to urban areas. The new scenario of better road connectivity and more accountability has been perceived as a process of urbanisation of rural education, as it produces a shift in the involvement of teachers in the microcentro. Carlos described this as a shift in the culture of newly appointed teachers as they no longer live in the same locality where they teach and do not possess the time to fully participate in the microcentro.

5.4.1. 'We were the only ones left': rural school closure

The microcentro "Craftsmen of the rural world" was closed in 2015. Carlos depicted the cessation of the microcentro as part of a receding process that affected rural schools and their teachers in the three neighbouring boroughs. He described a scenario of progressive territorial disintegration that started in (a) Mostazal then (b) Graneros and, finally, (c) Codegua, where he was working at the time (Figure 5.3). It was a process of territorial loss for rural teachers organised in the microcentros, underpinned by a sense of inevitability in which the closure of rural schools evolved as a narrative that contested the idea of having a CPD programme exclusive for rural teachers.

C: The microcentro from the northern area began to fall into decay. The northernmost area in the "northern cone", *Cachapoal Norte*, as they called it, was lost. Mostazal was the first one to be set apart.

V: Why, what happened?

C: Because there was a decline in school enrolment, one of the schools had to close. The same thing happened with Graneros. Graneros had two schools [Las Mercedes and Las Higueras], both with school enrolment or administrative issues.

C: Those two schools were also closed because the school population continued to shrink. So, it was better for business to arrange a school bus, pick up all the children from the sector and take them to the [town] school in Graneros. The [rural] schools in Graneros were terminated and we were the only ones left, in Codegua. Codegua was the only [microcentro] left. That situation continued for a couple of years until the rest of the teachers dissociated themselves from the microcentro.

... That happened some three years ago when we - the four rural schools from Codegua - were the only ones left.

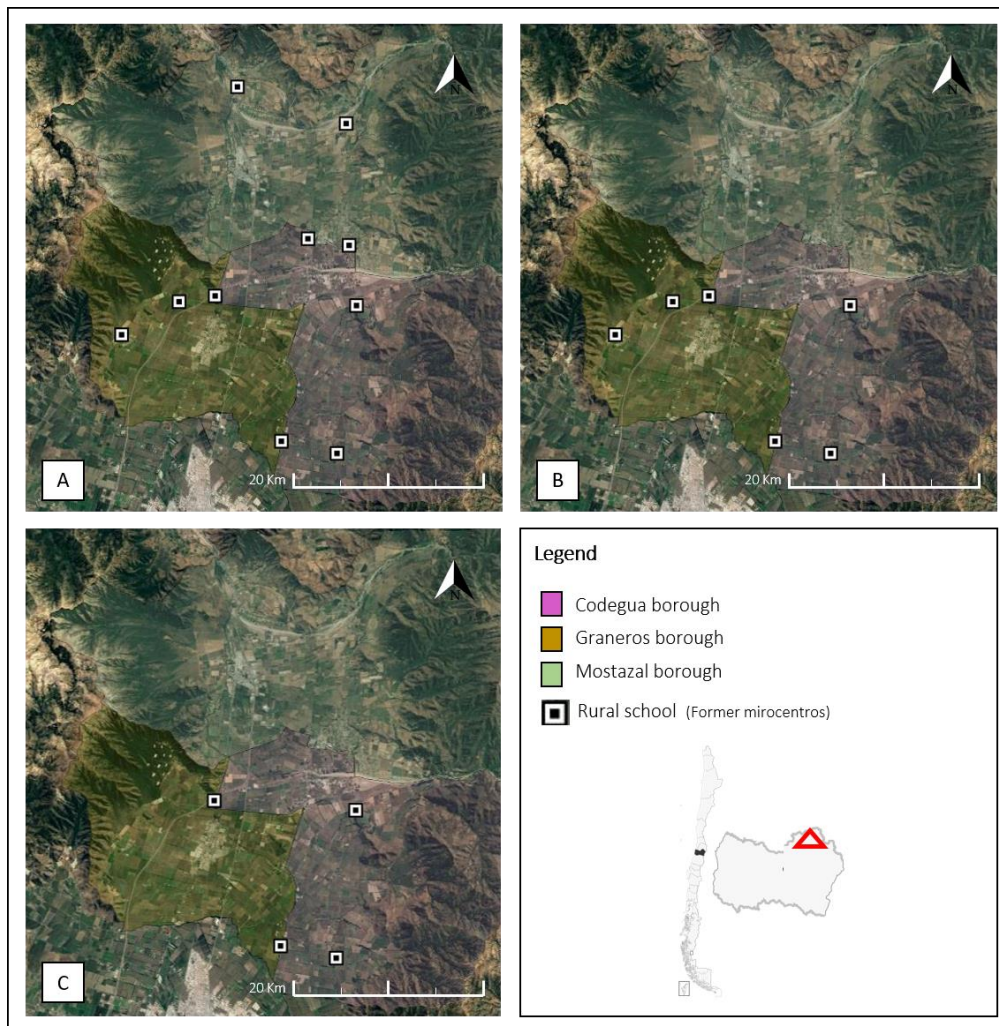


Figure 5.3. Microcentros receding process.

According to Carlos, the key factor on the microcentro's demise was the lack of enrolment at the rural schools. This was part of a nationwide trend that, according to Ministry of Education data (Mineduc 2020), by 2018, meant 92.3% of the country's school enrolment was concentrated in urban areas.

Mostazal's decreased enrolment resulted in Carlos' microcentro being set apart from its neighbours in the north. However, even though the northernmost school in Mostazal was converted into a nursery, most rural schools in the borough were not closed. The schools and the teachers are still there, only they do not form part of a microcentro. Rather than being a description of rural schools' closure, Carlos' depiction of the three boroughs charts the structural pressures placed on rural teachers.

A better insight into this concealed process can be found in Carlos' differentiation between the local authorities of Graneros and Codegua (Figure 5.4). This illustrates the different rationalities underpinning the theme 'rural school closure'. On the one hand, the local authority in Graneros closed its two composite schools based on an efficiency criterion that 'it was better for business'. On the

other hand, their counterpart in Codegua preserved its four schools and supported rural teachers, considering it a political necessity.



Figure 5.4. Local education authorities.
Andres Oses, DAEM Graneros (left); Teresa Rojas, DAEM Codegua (right)

The theme 'efficiency' is associated with an accountability rationale that creates incentives for private ventures in the educational system based on austerity measures that cut public expenditure (Mizala and Romaguera, 2000). Andres Oses, the education authority (DAEM) in Graneros, explains that the decision of his predecessor to close the composite schools was driven by issues of competition with the newly-generated private-subsidised schools, and the voucher system that provided school funding.

Our main weakness here is enrolment. In the last 10 years, our borough has lost 200 students per year i.e., 2000 this decade. That was because of the emergence of private-subsidised schools. They got better infrastructure, they are compelling for the parents because of their marketing strategies, so parents move their children to those schools and they do not trust in public education.

Andres Oses, DAEM Graneros

In the voucher scheme, the money follows the child. Thus, a family's decision to move from one school to another is treated as a matter of school choice rather than an issue of shifting livelihood, as Carlos noted. In Andres's accounts, families have the freedom to come and go, and the local authority seems powerless to influence this process.

I haven't thought much about it [schools closure] but it was because the population was shrinking. Workers left the area, a production plant was closed or some farms were eradicated and new developments were built. So, people migrated, those schools were closed and no one complained. It was not the municipality's responsibility as patron; it was not because of money but because people left.

Andres Oses, DAEM Graneros

However, by transforming families and students from inhabitants and learners to clients, the voucher scheme works as a system that is not only about a lack of funding but about the limits that public authorities have regarding their interaction with the community.

5.4.2. 'Dragging': New rurality in education

When a rural school is closed, they are replaced by a school-bus service provided by the municipality (Figure 5.5). The school bus requires less maintenance than a school and it can carry the remaining handful of rural pupils to urban areas. The same practice is used by private-subsidised schools to attract students from rural areas and multiple communes in a strategy that was called by the teachers in the province "dragging" ("Arrastre"). Unlike smaller schools, private-subsidised schools offer free transport to families to enrol their children into a bigger school. By bringing students out of their natural catchment area, schools can build up their volume of students and receive more funding from the Ministry of Education.

A: Public education in Chile is managed using subsidies delivered by the Ministry of Education. There are three or four state subsidies but they all use the same draconian scheme. We depend on the percentage of monthly students' turnout. They [the Ministry] pay you by student turnout against their enrolment... When you have a student turnout of 90%, 92% in this borough, we receive 10% less income. We have a deficit of 300 million pesos just because of that.

V: What about the rural schools?

A: Rural schools are under the same scheme. There is no difference between urban, conurbation or rural. There is only one procedure [to acquire funding].

Andres Oses, DAEM Graneros



Figure 5.5. School bus in Graneros.

Teachers who were part of the microcentros belonged to a small percentage of rural schools that organised their teaching in composite classes or were taught by a single teacher. These schools were created using geographical criteria as their location intended to provide public primary education to one particular locality within a commune. That rationale influenced Carlos' perspective of his school, as he stated during the shadow observation 'we are not called by the long official denomination, we are called by the locality' of our school.

You have to maintain teachers no matter what. Even if you have three students, you have to have a teacher. That is not the case for this borough because rurality almost does not exist. We have two schools that have the rural label because they used to be part of a rural locality. But today, connectivity makes everything different. [The schools] maintain a rural signature but we do not have schools with three students, single-teacher schools as they called them, where you can find a teacher for a few students.

Andres Oses, DAEM Graneros

Underpinning Carlos' narrative there is a globalised rurality depicted by Andres Oses with paved roads and better connectivity that has made invisible its inhabitants, pupils and teachers. There is a 'geographical dissonance' in the eyes of Graneros' local authority as rural dwellers, and its educators do not respond to the practices associated with the traditional image of underdeveloped-agrarian societies. As the local authority states, 'rurality almost does not exist'. In this perspective, rural dwellers have become an omission in the story of success of a new rurality (Ramírez-Miranda, 2014).

The image of Chile's new rurality is the one depicted in Figure 5.5. It represents spaces connected to the global markets: hence, the paved road in an otherwise isolated sector of Graneros. To the left of the image, there are cherry tree plantations that provide fruit exports to China. These plantations require vast tracts of land and have become an incentive for smallholders to sell their land and move to urban areas. On the back of the picture, there is an elevated motorway linking the agro-industrial complex of Agrosuper, the local giant company that extends its operation all over the Chachapool province (Figure 5.6) and competes for space with the wine industry. Winegrowers have a preference for this province as its soil and climate make it possible to produce red wine for export to Europe. In the background, the Chilean Andes hold the world's largest underground copper mine, one of Chile's economic drivers that structures the entire province and has its base of operations in the neighbouring city of Rancagua, the capital of the region. Latin America's new rurality (OECD, 2014; Ramírez-Miranda, 2014) is based on this type of commodity industry that in the case of Chile has driven the economic boom of 1990-2020. They are the reason connectivity exists in the province, and they lie behind the school bus moving rural students.



Figure 5.6. Agroindustry plant in Rosario.

The geographical dissonance theme can have adverse impacts on places and teachers' pedagogical practices by supporting activities that consciously or inadvertently encourage tokenism. The emphasis that the local authority puts on nationwide folklore or heritage tourism in the two remaining rural schools of Graneros can lead to an imbalanced or narrow understanding of what the rural 'signature' is at local schools by fostering ready-to-consume practices that might not represent the cultural identity of the area.

The Tuniche school maintains an artistic-folkloric signature. They recover traditions from the folkloric music of the region. They have a music classroom and this year they have a music teacher. We have delivered resources so they can accomplish their project. The school in La Compañía is part of a heritage path and maintains its traditional rural signature and an environmental signature. All our support is directed to the schools' signatures through our pedagogical technical unit

Andres Oses, DAEM Graneros

The 2018 Rural Teacher Survey indicate that the local authority's views might not be far from those of the teachers working in the urban-rural fringe. 11.5% of surveyed teachers in the province address a geographical dissonance between their school being labelled as rural and what they believe is the true characterisation of their school as urban. Rurality in the northern cone is one of the most urbanised in the province. Thus, it is expected that teachers at rural schools might have contested notions about what rural is, and their role in these communities.

5.4.3. Urbanisation of rural education

The 'urbanisation of rural education' was a common comment made by Carlos. It may be misunderstood by the improvements in connectivity and infrastructure that correspond with the image of a new rurality. However, it relates to a cultural shift in rural teachers that has been driven by a series of processes influencing the educational landscape of Chile. This cultural shift transpires in issues of governance and teachers' professional identity.

Carlos case at the microcentro is part of different processes occurring simultaneously. One of the drivers for what Carlos depicted as 'rural education urbanisation' has been decentralisation and deregulation in the country (Henríquez et al., 2015). These processes come together as one. Since the late 1980s local governments have the responsibility to administrate the local school system but they do not have the resources to do it, much less to compete with the private system (Treviño et al., 2016). According to Mizala and Romaguera (2000), this is translated into a performance-based system that has contributed to a general process of deprofessionalisation for teachers in Chile (Apple, 2006; Oyarzún, 2020b).

The microcentro in Codegua was disbanded by the local authority and it was replaced by regular meetings managed by the Technical Pedagogical Unit (UTP) from the municipality. This unit oversees education in the borough and manages training courses for teachers and communicates curriculum changes mandated by the Ministry of Education.

A: The UTP has to oversee the mandatory curriculum compliance, as well as extra-curricular activities, training workshops and all of that. They have monthly and fortnightly meetings with the school teams. They are part of a communal network that is also supported by the provincial department to oversee curriculum planning, educational projects progress, and timeframes set by the Ministry of Education. All of that. That is technical work that they do directly with the schools.

Andres Oses, DAEM Graneros

The microcentros represent an issue of governance as they are a multi-layered organisation. As a programme, the microcentro was created and sponsored by the Ministry of Education at a central level but they were represented by a supervisor from the provincial authority who facilitated the microcentro meetings. This is mid-level position in the territorial administration of the country. However, rural schools have been managed by the municipalities in the local boroughs. Teachers are hired by the municipalities and require resources from the local authority to keep the school running.

I have to organise, lead and administrate the educational system of the borough under the requirements from the superiors at the Ministry of Education and the communal authority. We don't have to forget that when it comes to the technical and pedagogical [issues] we have territorial autonomy ... we are at the middle level between our patron – the mayor, she gives us broad

guidelines to implement and the ideas that she has towards the system, and the policies set by the Ministry of Education.

Teresa Rojas, DAEM Codegua.

In the late years of the microcentro programme in the Northern Cone, teachers from the four rural schools in Codegua were a majority that prevailed over the ones from the one single school left in Graneros. This might have increased the influence of Codegua over the professional development of teachers from Graneros, generating possible issues of overlapping jurisdiction between the two local authorities.

However, the mixture in control and management of rural schools was beneficial for rural teachers' autonomy. As Carlos suggested, they were able to navigate the state's bureaucracy to negotiate with multiple agencies informed by different rationalities. Moreover, teachers at the microcentro possessed something unusual for classroom teachers: a direct line of communication with the Ministry of Education that bypassed local authorities. Teachers at the microcentro had the support from their supervisor at provincial authority and they could report back to the unit of Rural Education on a central level. The Ministry of Education is currently involved in setting the curriculum and defining the policy on education. Thus, the Rural Education unit is one of the few offices in the Ministry of Education that has had a direct relationship with teachers. Rural teachers collaborate with them to create tailored learning materials for composite classes and host an annual national seminar of rural microcentro coordinators that is attended by one representative from each microcentro in the country.

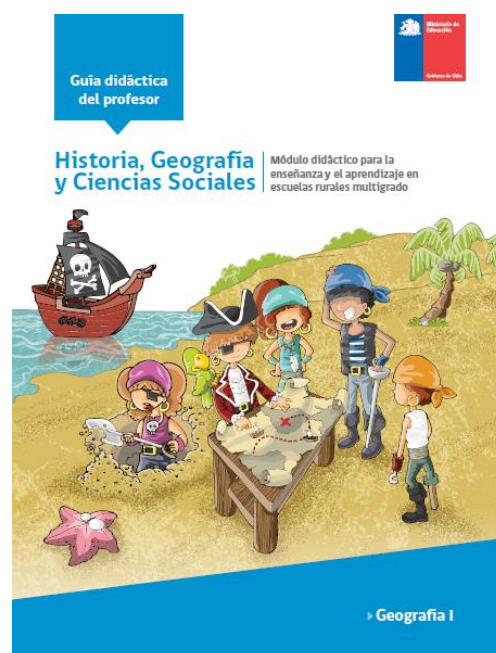


Figure 5.7. Rural module for multigrade lessons.

The cultural shift in rural education is driven by neglected governance but it is based on rural teachers' professional identity disintegration.

In the years previous to his retirement, Carlos noticed a shift in teachers' professional identity that created the conditions for an internal collapse of the microcentro. The structural pressures that they endured within the boundaries of the microcentro came back naturalised by new arriving teachers. According to Carlos, novel teachers had a different approach on rurality, they were subject to a normative environment and, less prone to build spaces of collaboration.

V: Why do you think the microcentro was closed?

C: The boss took that decision. But, it was because new people were coming and they were not imbued with the rural spirit.

The new teachers were not that into "horse riding" ["a caballo"] as we were.

They saw it as a social rather than professional experience. They attended [the meetings] to eat the food. We eat so much food [at those meetings] [laugh].

We used to have our CPD training in Pichidegua [costal locality 2 hours away] but we did not have the time to see the sea. We were in training the whole day, working on edge technology ... We had supervisors on subjects such as language, mathematics and leadership. We were pioneers in that [last] area.

We worked hard but we had fun.

And the children moved forward.

Carlos interview

Moreover, the culture that the microcentros cultivated was based on the idea of belonging to a locality. However, it is likely that current rural teachers live in the city and travel to the school by bus or car (Figure 5.8). This might not be a problem for a professional association, however Carlos microcentro's emphasis on identity might have developed a committed culture that put additional pressure on its membership.

The microcentro culture emphasised social interaction to facilitate collaboration. Even though teachers were able to access training and CPD through the microcentro, this required time to be convened and socialised the decisions amongst its members. This might have not been taken well by the younger teachers, not accustomed to this deliberative style of decision making. Moreover, during the questionnaire interview, other teachers from Codegua stated that attending the microcentro meeting had become a burden that was taking time from their other increasing responsibilities.



Figure 5.8. Rural school at Cantarrana in Malloa on a schoolday.

Teachers' responsibilities at school have increased in the past decade because they have more access to public funding by a special law of Preferential Educational Subsidies (SEP). Since 2007, additional funding was allocated to rural students because of its "social vulnerability" and their "territorial particularity". Rural areas in Chile generally concentrate low-income population and are considered areas that have hindered the opportunities of its inhabitants (PNUD, 2018; Rimisp, 2020).

Access to funding was celebrated by Carlos, as it involved resources that could be applied for directly from the Ministry of Education by the headteachers and were funnelled back to the school through the municipality. This simplified the practices they were already performing at the microcentro such as fundraising or project management.

We went crazy when the SEP resources arrived. We made good use of it ... we started to equip the schools. We geared up well. We started to stockpile materials for the school –things that we never had-. We finally had everything we needed for every child: sketch books, rulers, painting, notebooks.

Carlos' interview

The SEP solved many everyday issues for the teachers. As a public fund that requires application and accountability, the SEP has been criticised to encourage a managerial style of practices in education. However, the problem with the SEP is that it generates two contested cultures informing rural teachers' practice. SEP standardises the professional practices of school improvement (Galdames and Gonzalez, 2016) and, as this case illustrates, isolates teachers by reducing their interactions with other

schools locking them in a closed circuit of accountability. The SEP can be understood as a public policy effort to foster teachers' autonomy by providing access to funding but it is contested with the previous microcentro version of autonomy. In this particular issue SEP has a neoliberal rationality that discourages communal management, influencing rural teachers to move away from collaboration towards individual capacity building.

5.5. Rural politics

Carlos professional practice as a rural teacher has been intertwined with the rural politics that comes with inhabiting a rural locality. School in rural areas have an important role as community centres and places that build rural sociability, an aspect that is not unaverted by local politicians and elected officials. According to the UN Development Programme in Chile (PNUD, 2018; UNDP, 2008), the school's role and teachers' position as one of the few professionals in rural areas situates them as part of a rural elite that facilitates the communication of local demands to different actors. In the case of Carlos, this has been framed by him as a geographical rationality informing rural education in the commune in which, each locality has its own school in an interdependent relationship.

5.5.1. Rural elite

The new rurality scenario created a narrative of rural school closure and several challenges for rural teachers but also set the emergence of a new stage of teacher autonomy. Carlos stated that at some point, after the closure of the last school in Graneros, they recognised they needed to do something. Their outcome was a second-generation type of microcentro, an organisational upgrade adding the tools they needed to continue their work as rural teachers.

Teachers used their professional space at the microcentro as a platform to consolidate their position by bolstering their legal rights as well as expanding their membership to incorporate all types of rural schools in the commune: single-teacher schools, multigrade and monograde schools. It is unclear how many of the teachers at the microcentro were involved in this process but Carlos stated these actions as part of a collective effort from the teachers represented in the microcentro. Both, his colleagues at La Cantera school and the local authority corroborated the new direction that the microcentro took at the time.

C: We have made history here. We were the "vanguard" as they say here. We moved forward in the SIMCE test [standardised national test], we created a radio. The community radio in Codegua was born in the rural schools. We even had to represent the schools at a conference in Santiago at the Catholic University [prestigious university in Chile]. The Codegua microcentro was powerful. It was boosted in such a way that the [students] results confirmed that as well.

Carlos interview

The consolidation of their platform involved recognition of the microcentro as legal entity. Technically, the microcentro and its legal entity were two different organisations as they could not be merged but for Carlos they worked as one single body. This allowed teachers at the microcentro to apply for funding for new development instruments design for the regions. This practice has a direct precedent in the financial practices that teachers had already in place when they were in need of resources. They needed the legal recognition to apply to this funds because the microcentro was not an organisation but an association of teachers, and as public schools they could not legally receive resources outside the municipal budget. Thus, they needed this additional branch of the microcentro to manage their new projects and support.

The expansion to incorporate all type of rural schools in the borough was an important step for Carlos. He was acting as headteacher at the rural school of El Carmen at the time. This school was not part of the microcentro because it was a “plain rural school”, which meant a similar educational structure to a urban school. They had several teachers and their pedagogy was not structured in composite classes. According to regulation they were not part of the microcentro but the school had an educational project focused on students from rural areas. Moreover, it was part of the same circuit influenced by the microncentro. The role of Carlos on this is relevant as he created a connection between this “plain” school and the other rural schools articulated at the microcentro.

C: [Some of us] were not part of a single-teacher school. We were considered just plain rural schools. So, we organised ourselves, like three years ago, to be recognised as a legal entity.

C: We did the paperwork, the whole thing. We got the legal recognition so we could apply for funding from regional projects. We did not want to trouble the municipality. We did this so we would be able to help the municipality because the Codegua borough is poor. We wanted to help the municipality so that is why we took all the trouble managing the application. Those deeds might have been misunderstood [by the local authority] at the time because they might have thought we wanted to be independent.

V: Like self-governing?

C: Something like that, I think they might have taken it like that. But, we achieved so many things. Once we got the legal recognition, things were running very smoothly. One fact that says much about this is what happened with those rural schools that were part of the microcentro. They are still in place today. We keep seeing each other sometimes at the rural schools’ meetings. We have scored high results at the SIMCE test. We have scored better than any other schools by far. Even more than – for example- the central school of Codegua. The [rural] school of El Carmen, which is a big school with simple classes [not composite class], is run by us, in its pedagogical sense. We graduate good students and we have scored better results than any others ... We have evidenced that this year when we got the statistics from 2014 to 2017. Rural schools where little resources are allocated have better results than central schools where more money is allocated, more people are hired, and they hire tutors, specialists and more professionals.

After the closure of the microcentro, its influence remains relevant in the professional practices of the rural teachers in Codegua. When Carlos states that a particular school is “run by us” is quick in explaining that is in a pedagogical sense, as they as teachers know what involves to deal with the rural

context. Thus, regardless of the changes in administration, when Carlos comments on the merits of this school, suggests that there is an underlying professional culture informing the pedagogy of rural areas.

5.5.2. Geographical criterion: One school, one locality

The role of the teacher in its local community is a theme that is highlighted by Carlos, as well as by his direct local authority in Codegua. As Carlos suggested, the authorities' approach to rural education influenced teacher practices in different spaces. He understood that rurality in these two boroughs could be different, but was also appraised differently. In Codegua, one school meant one locality. The failure of a school could be the demise of its community.

To us [rural schools] are important because they are the heart of each sector. Codegua is a borough that is very scattered. Thus, that is one of the reasons why we have never closed a rural school. Rural schools have remained here since I got here [to her current position].

Teresa Rojas, DAEM Codegua

Teresa Rojas, local authority at Codegua argued that Carlos' school at Callejones had experienced several financial issues in recent years but the decision to keep the school open was based on a political rationale informed by the possible consequences the closure of a rural school might bring to the community. Her depiction of the aftershock of the 2010 earthquake illustrated this rationale:

The school at Callejones almost disappeared, together with its community, because we did not have a building for the school after the earthquake. Callejones required us to make a decision. If we considered its finances, we would say that the school should be closed. Most students at the Callejones school come from Graneros. They are people that have migrated to Graneros. At this moment, 30 out of 60 students from that school are from around the area of the school. The rest are from here [Codegua]. That school has remained open because of the efforts of the Mayor. I personally attended several meetings where the parents stated that they did not want to lose their school.

People love their school. When there is any activity, they attend and they collaborate. In Callejones, there are lots of people that have migrated to Graneros, but they are conscious of their children. We were talking about this with the headteacher because we have to invest in sending transport for those children. So, for us, it is an investment because we have a territory. Our local council in our borough have voiced their concern about the expenses this involves. However, we do not want to lose the school, and we are aware of the people. Those people that left, but they have children. They have their roots here. They want their children to finish their studies here and they have remained with us.

We have been close to the point of closure with that school because it generates a financial deficit but it was a political decision to keep it open.

Teresa Rojas, DAEM Codegua

In Codegua, the rural schools were important for the survival of the localities in the borough and, in turn, the municipality was dependent on the role that rural teachers had in their localities. This brought teachers closer into the cycle of rural politics as the relationship between the Mayor and the

local communities was mediated by the sustainability that the educational structure provided to the inhabitants of the borough.



Figure 5.9. La Cantera school at Callejones, Codegua.

Carlos' school location, lying on the border between the boroughs of Graneros and Codegua, generated contested notions on what was the territory of Codegua. For some local politicians, the school at Callejones was extending their outreach beyond their jurisdiction. However, by arguing that 'they have remained with us', Teresa understood that their responsibility was to the people that identify themselves with Codegua as a community. Carlos' school was the embodiment of Callejones concerns on environment and popular religiosity (Figure 5.9). This is what was at stake when she said, "we have a territory". It was a statement about space and community entangled with her agency as local authority and the shared beliefs with the teachers at the school on what was the focus of local education.

Carlos was not foreign to this idea. The northern cone is a fluid space, connecting people and resources. Carlos' career as a rural teacher started in the two rural schools that were closed in Graneros. Before their closure, he moved to Codegua, where he spent most of his career as a rural teacher. Moreover, his participation in the microcentro also enabled this as it was a space that facilitated the interchange of ideas beyond local boundaries.

5.6. Discussion and conclusions

The importance of studying how the process of de-territorialisation (Haesbaert, 2013b) relates to teachers professional practices (Clare Brooks, 2016; Kemmis, 2014) is that it ultimately affect the *project of education* (P. G. Biesta, 2020) that was been produced at the microcentro. This professional space carried a form of rurality shared by the individuals that followed the pathway of the microcentro to become a rural teacher.

If we are to understand rurality (Woods, 2011) as a collective project fostered by the microcentro, it is relevant to consider how, without the microcentro encompassing shared understandings and practices, rural narratives are replaced by mainstream notions on what people in these spaces should look like, known and behave.

Membership to a microcentro is conditional to teachers' workplace location. This geographical feature creates a tacit acknowledgement amongst teachers, identifying their own actions to a particular area, therefore developing a distinct local identity. Carlos portrays a strong sense of social solidarity in teachers' interactions within the microcentro. In particular, mechanical solidarity (Durkheim, 1997), as participant teachers are relying on a high level of common understanding and values that conform with the idea of a community. There is a notion of sameness as all the teachers in one microcentro had to demonstrate their belonging to a contiguous local area.

Young (2019) has recently criticised this type of mechanical solidarity assuming that this type of organisation do not develop forms of innovation and abstraction. His argument re-introduces the notion of organic solidarity to highlight the importance of interdependence as people focused more on specialised fields of practice. Therefore, in his rationale, a teacher organisation like the Microcentro – heavily based on local experiences and the identity of sameness, might be impeding the purpose of schools to provide access to knowledge students would not be able to acquire at home (M. Young, 2011).

The key problem with mechanical solidarity is its openness to abstraction in order for teachers to communicate across individualised groups. However, Carlos accessed his colleagues' expertise through a professional space that was mediated by teachers' mechanical solidarity. For Collins and Evans (2007), in a context of 'normal science' the process of knowledge transfer can occur in a two folded process that develops interactional and contributory expertise. In Carlos' case, this was firstly achieved by the means of interaction with the ministerial supervisors or/and learning from his own colleagues. It required a sub-process of peer validation that involved to recognise the expertise of other teachers participating in the same community of practice. Secondly, by contributing with his

own expertise in the field of Mathematics, Carlos acquired a position within his community. He also reported that he participated as a speaker in courses for their own superiors in this matter. Even though the epistemic quality (Maude, 2016) of Carlos' interaction is uncertain, his focus on specialist subject knowledge was clear. As Morgan and Lambert (Morgan, J. and Lambert, 2018, p. 36) suggested, Young's theory on knowledge itself is incomplete 'many of the social relations of contemporary schooling – issues around performativity, assessment and teachers' control over their work are acknowledged, but not substantively explored' i.e. without the emphasis on identity, locality and belonging, the Microcentro – as a space created by social interactions (Henri Lefebvre, 2013), would not have become a platform for teachers' professional development

The 'microcentro' was a special modality of professional development for rural teachers that was relevant in Carlos professional career. The programme aimed to improve pupils learning opportunities through a focus on teachers' school-based professional development. For Carlos this was a space to share experiences with his colleagues from other rural schools in the borough to 'learn and build something' in which microcentros fostered a culture of collaboration based on social networks. Carlos's microcentro does not longer exist but he considered it part of the 'rural teacher DNA' and the living memory of what constitutes being a rural teacher. According to Carlos and his colleagues in the school they achieved better levels of teacher autonomy because of the microcentros. This was their platform to position rural students at the top of different national assessments as national statistics confirmed it.

New generations of rural teachers might not have the same type of professional development experiences that Carlos cohort had in the past. Rural schools have received more funding in the past few years which have allowed them to hire more teachers per school. Since the microcentros were part of a policy that was aimed to foster traditional single-teacher schools in rural areas, they are no longer favoured by some authorities and new generations of rural teachers are subject to more pressures and regulation which, for Carlos, was the actual reason of the cultural shift underpinning the microcentros decline.

6. Chapter 6 Teacher-community relationships. A school-based territory in the Andes Mountains

6.1. Introduction: Catherine

Catherine Cuadra is a Special Educational Needs teacher. She has been working for the past six years at the rural primary school in the locality of Chacayes. The only school of the locality with 26 students. Catherine is her real name as she requested it because her statements during the interviews and lesson observations were ‘her own words’.

Catherine’s professional practices have been underpinned by her deliberate and authoritative effort to shape her students’ learning environment. This has been her signature in the school’s locality and also what constitutes her territory (Figure 6.1). Territory not as the setting for practice but what is made from the practice of a particular agent in space (Santos, 2017).

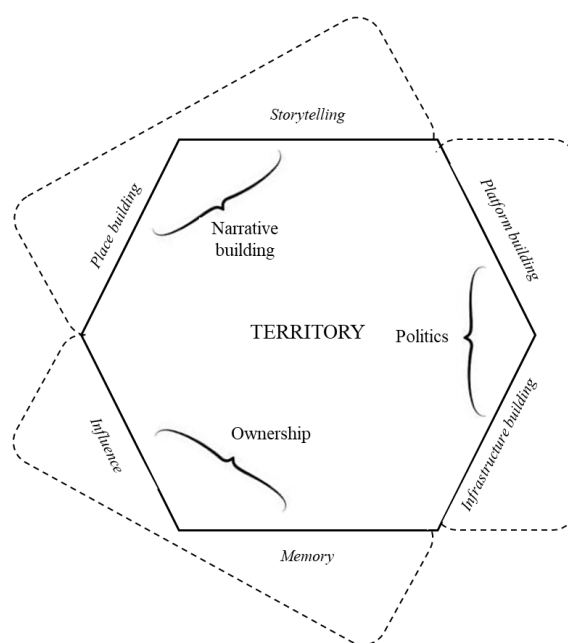


Figure 6.1. Territorialisation.

The key issue on territoriality is who constitutes the territory. It is, therefore, an issue of power (Haesbaert, 2013b). Power, as Maude (2018, p. 180) argues, ‘implies an ability or capacity to do something that has an effect or outcome’. Figure 6.1 shows the different themes that structure this chapter and have enabled Catherine to position herself in the locality at the centre of an intricate network of places, people, stories and agendas. By performing her work as a teacher, Catherine’s professional practice (Brooks, 2016) provided the working connection to build and preserve the support network that constituted her territory.

Catherine and her colleagues were active creators at the school. For them, working in the only school of the locality meant that their area of influence (Mojtaba, Hashem, and Aliakbar, 2017) was geographically defined with clear social and natural borders, known places (Garrido, 2005; Massey, 1991) and stakeholders (Ainscow, 2015). Any activity they did was likely an activity of the locality, school ceremonies attracted several members of the community and likewise, in the major local festivities, teachers at the school were accustomed to assume a leadership role.

Catherine's territoriality coexisted with a multiplicity of alternative and simultaneous territorialities (Forer, 1978). In Chacayes there were as many agendas as different actors overlapping in the locality. However, Catherine enacted the school's agenda demonstrating a cautious practice of school politics (Ball, 2012; Ball, Maguire, Braun, & Perryman, 2012). Teachers' public role at the school provided legitimacy to their actions but also status to their position as spokesperson of Chacayes and the knowledges encapsulated in this space. Catherine and her colleagues were able to incorporate traditions, places and local understandings about nature in the school curriculum that latter influenced the local narrative that their partners used in their own activities.

6.2. Teacher-community relationship

For the past 22 years Catherine (Figure 6.2) has taught in all three rural schools situated in the mountain landscape of the commune. She resides and commutes to Chacayes School by bus from Coya, the closest neighbouring locality to Chacayes. This is a rural locality that is more urbanised than Chacayes and with several offices from the mining companies operating in the area. Although Chacayes has a wranglers' culture, several parents at the school are employed as mining operators or work in services for this cluster.

The locality of Chacayes has a dominant wrangler culture (Figure 6.3). The locality is situated in a small valley at a gorge in the Andes with access to the pasturelands in the highlands for the cattle during the summer season. Claudio, former colleague of Catherine and previous head teacher at the school, describes the locality as the classical representation of rurality in the country. The presence of wranglers, their social and religious festivities, clubs and the awareness that the students have of nature constitute a place that is unique.



Figure 6.2. Catherine Cuadra, Teacher at Chacayes School.



Figure 6.3. Wranglers 'Arrieros' in Chacayes.

Although Coya and Chacayes can be considered part of the same mountain landscape they are separated places. When Catherine first came to teach at the school she learnt from its people. Even though she was born in Coya in 1973 and worked there for 17 years before going to Chacayes, Catherine declared she did not have enough knowledge about the locality. She explained that at that time Chacayes was more isolated from Coya, roads used to be dangerous in winter and the new bridge that connects the two localities did not exist.

Although Chacayes has a history of isolation it is socially well connected. Catherine has learnt that the parents at the school and the people living in Chacayes are close to each other. She acknowledges they are skilful in organising events, especially when there is someone in need. Non-locals are also welcomed in Chacayes. Public services such as the local general practitioner and the police coordinate efforts with the school, the only public institution in the area. Companies mitigate their environmental impact in the area supporting the school, an interaction in which Catherine acts as the school gatekeeper for these relationships.

Catherine and her peers at the school had recurrent conversations about their 'neighbour', the Cipreses Natural Reserve. The School and the reserve have had a longstanding partnership. Catherine recently became head teacher at the school and has made the relationship with them a priority. She almost considered the park rangers as members of the school. She counted them as part of the team and they planned activities together.

Associativity and collaboration were important in this school. Catherine has been working with other two teachers at the school, Lili and Ismael. An early childhood educator and a subject specialist. They divided the six school years they covered in three levels, so each of them taught in a multigrade classroom. Catherine has worked with year 1 and 2 and she has had the support of a teacher assistant from Chacayes. The other local at the school is the 'aunty' cooker that served breakfast and lunch for the students as she is part of one of the different family clans that attended the school. The janitor is also a parent at the school. Two other teachers of English and Physical Education that are based at the public school in Coya also come to Chacayes on specific dates. However, the three main teachers are the ones that have been there every day and shared the weight with Catherine of planning and running the school.

The following section expands on the way Catherine has conducted her work as rural teacher. It shows how her knowledge of local places and rural landscape (Simon Catling and Tanner, 2020) has been re-signified in an agentic practice (Priestley et al., 2015) that has positioned the school at the centre of a series of social and spatial networks (Santos, 1994; Santos, 2017). This is what we are going to understand as Catherine's school-based territory. Its construction as part of a series of agentic

practices can be identified in three concomitant themes (Figure 6.1). First, a process of narrative building that help others imagine Chacayes and share a common vision of its past and future; second, Catherine's exercise of politics to enable multiple and dissimilar people to live together, and the ownership that Catherine and her colleagues adopt of their work at the school.

6.3. Narrative building

6.3.1. Storytelling

Catherine was particularly active in organising activities at her school. These activities were coherent because she also used to link them to an overall narrative about the locality. Catherine thus created what Lovel (1998) has identify as a narrative of belonging in which the locality provided a sense of unity and purpose to the students' learning experience. Catherine noted that,

It depends on the link that you try to do with the students' prior knowledge. It is actually in that moment when you start to play with what the students are. It depends on the content, I don't know. For example, if we are working with a legend. So there are some legends in the community, and then some stories and then we have the activities that we have work with. We have tried to recover that. Its –let's say– the identity of the locality. We'd like to recover that and make it our signature. So the children can value what they are. For example, they are very knowledgeable about everything [around here], their environment, but also because of our signature as school. So you try to recover that.

Catherine Cuadra interview

The work of the teachers at this school involved the mobilisation of stories. They used the stories such as local legends to connect the identity of the locality with the knowledge that was locally produced. This was identified by Catherine as part her classroom practice eliciting students' prior knowledge.

The meaning of the word "play" in Catherine's account is relevant as it conveys a sense of novelty in her actions and those of her colleagues at the school. In her native Spanish, 'play' connotes a game. Similar to the process of learning the rules of a new game, Catherine indicated her desire to attempt different initiatives so that she could be certain before arranging the next activity for her students. When she said, 'you start to play', she communicated an intentional effort to understand and create something for her students.

The mural in Catherine's school (Figure 6.4) demonstrates both the narrative that she and her colleagues were creating and the recognition of this work by external actors to the school. Julio Jeanmaire –the artist involved in the creation of the mural– regarded the work of teachers at the school as important and he created a visual representation of that.

The mural shows the fauna that the children know so well. To the left you have the Cougar, to the right the Guanaco [Camelid similar to the Llama]. The cougar hunts the Guanaco but here they are both portrayed in a more subtle way. There is the Condor, an emblematic bird from the place. The Tricahue parrots that fly everyday there. All of these surrounded by petroglyphs that are up in the rocks [of the

mountain]. I wanted to depict the theme of the fauna and the Chiquillan in a simple way. He is the guardian and main character of the mural in between the fauna and the petroglyphs. I wanted to show the identity surrounding the children and the community.

Julio Jeanmaire interview



Figure 6.4. Mural at the Chacayes school.

Photo credits: María José Olguín – parent at Chacayes School, 15 July 2017

The mural was a project funded by the municipality in collaboration with Julio Jeanmaire. It took three months and was a participatory process where Julio collaborated with Catherine in the classroom. They created a workshop to talk with the students about the possible topics of the mural and accompanied them in the painting and creative process. This collaboration generated a positive image of Catherine at the school. When Julio was asked about the role of the teacher at the school, he replied that:

It is fundamental. Nowadays the school does not have many children. But, there is something that inspires hope to me. I have been to the school several times to meet with the head teacher because of several joint projects. It is so good what has happened during this time, the teacher keeps teaching the children about this topic of identity. Almost all the children know what the petroglyphs are and then this starts to be communicated to others. It generates an information network. There is a child that learns and then goes to his or her family and he communicates [what he or she was taught]. Then that family already knows about it. It is incredible how - little by little - a mural or a workshop generates this information network across the entire community. That is what is happening.

Julio Jeanmaire interview

Murals were visible in several schools visited during fieldwork. The mural in Chacayes was located at the threshold of Catherine's school welcoming visitors and visible to the whole school community. For Catherine, the mural was a visual representation of the narrative that she and her colleagues were creating. By portraying relatable places, artefacts, characters and native animals, the mural was an

expression of art and the aim of promoting local identity. It was -to some extent- internal propaganda within the school considering the mural's purpose to communicate ideas and messages.

6.3.2. Place building

During the shadow observation, it was noticeable how easy it was for Catherine to list the different places her students visited or that she used as examples in her lessons as form of locational knowledge (Catling & Tanner, 2020). However, she showed a different expertise in recognising how meaningful those places were within the context of the locality. These were places loaded with meaning (Tuan, 2011), symbolising the collective experience of living in the locality and naturalised as something permanent in time.

Catherine encouraged her students' connection between narrative and place by fostering local traditions. Thus, while such spaces situated within the locality often had different meanings, Catherine pinpointed those that had a cohesive effect on its people. Narrative building then, in the case of Catherine, comes together with the production of space (Lefebvre, 1991; Massey, 1991), in particular the places that were inhabited or those that were appropriated by Catherine as part of the creation of a network of meaning for her pupils.

The Heritage Day celebration (Figure 6.5) is an example of such process of acknowledgement and appropriation of places by Catherine. This is a one-day commemoration in which public or private entities in Chile come together to raise awareness about the cultural and natural features of the localities. Catherine and the rest of the teachers were involved in the 2018 celebration in Chacayes, spearheading its organisation.



Figure 6.5. Heritage day.

The theme of the event was “Los Apestaditos” (see Box 1), a story about a place within the reserve. The “Apestaditos” story plays a special role in Chacayes because it generates a sense of identity among its people. The story was known by most of the pupils at the school. During the lesson observation

they acknowledged that they knew the story because it was told by their own families and they have had visited the shrine that commemorated the story.

The pupil saw the 'Apestaditos' story as part of Chacayes' history. Although it not clear when the events of this story occurred – some believe it occurred during the colonial era while others point to the mid-twentieth century – the importance of this place nevertheless lies in its connection with the past, specifically when the locality was part of an estate (Hacienda). According to Catherine and some of the parents at the school, the oldest families in Chacayes can claim a direct link to this past though their ancestors having been workers at the property or having lived in the housing located in the estate complex. The shrine became a landmark that made these stories seem real.

The Heritage Day event arranged by the school displayed both the importance of the place and Catherine's capacity to capitalise on such an event. She and her colleagues were able to mobilise the locality. They organised this event in collaboration with the park rangers to ensure that it coincided with the opening of a new path to the shrine of the 'Apestaditos' within the reserve. The day started with the teachers at the school singing folk music and a play about the story of the "Apestaditos" that was prepared by the students from Catherine's class. Thereafter, the attendants, students and teachers moved to the reserve in pickup trucks to attend the ceremony, which was presided over by regional authorities. A mass was then conducted by the local priest, who was invited by the people of Chacayes, which was followed a reception at the reserve educational centre.

Catherine highlighted that this was a collective effort that was only possible because of the support that she and her colleagues received from others within the locality. The event was an expression of what the place meant to the "Chacayino", the habitants of Chacayes, and for Catherine it was linked directly to the work that they were doing at school. She stated that,

We wanted to do it in social sciences [the presentation] because it is related with the school subject as we want to recover the history of the area. For example, how Chacayes came to be. So [the students] can salvage their history and the one of the grandparents. How they got here, how was the settlement process and in the case of the second level students, they salvaged all the living heritage, their grandparents and those old stories. That's where the story of the Apestaditos comes from.

Catherine Cuadra Interview

The significance of the story was framed by the questions that Catherine highlighted as key learning outcomes. This set of questions was eminently spatial as they aimed to understand why people were living in the locality and how they got there.

Box 1. The Apestaditos



Picture. Mass at the Apestaditos shrine

The shrine of the Apestaditos

The “Apestaditos” is a shrine (image) located within the natural reserve. This type of shrines in Chile are called “animitas”, small memorials for people that died in tragic circumstances built on the site of the tragedy. It is believed that the person’s spirit resides in the “animita” and it helps the family to communicate with their loved ones. Hence the “animitas” are generally maintained by relatives of the deceased. However it is common that this memorials become a shrine with religious connotation for a wider community where the spirit of the person helps people communicate with the Christian god to request favours.

The story of the Apestaditos

The Apestaditos story is about three children that were killed in the locality on an undetermined year in the past. Catherine’s told the story as follows:

A long time ago, some children had a skin rash after playing in the hills. People were ignorant and they did not know why these children had wheals appearing in their bodies. At that time it is possible that the children had the plague. We do not know if it was cholera or the black plague that was transmitted by the mice. No one knows but it was certain they had the plague... people was afraid of the children because they might be contagious and spread whatever they had to the other children in Chacayes. They took the three children and some people say that they buried them alive in some remote spot far away where the shrine stands now.

Catherine Cuadra interview

Catherine also added that people currently say that the cause of the swelling and itching could be because of the Litre tree (*Lithraea caustica*) an endemic plant to central Chile. ‘People at that time did not know about the allergic effect that the secretion of the tree could generate’ (Catherine Cuadra Interview).

In this case, infusing a place with a narrative took the form of a recursive process. The teachers in the locality helped keep a local story alive and, in the process, they made the places of the story meaningful. At the same time, the families' local traditions influenced the views of the students and informed teachers' decision to incorporate this narrative into the school's activities.

6.4. School politics

6.4.1. Building infrastructure

The term infrastructure is used to refer to the support and capacity the teachers had to enhance their students' learning experiences. Its use is also to emphasise the difference from a support network (McNamara et al., 2014) which might put the teacher in a passive role to receive support, whereas infrastructure is something that you can build. In Catherine's case, infrastructure meant the community. She relied on the different members of the community to further her plans and those of the school.

However, even though the school was placed within a certain community, this does not necessarily mean that the community was also involved with the school or that the social links that make a community (Blum, 2012) existed on the first place. There was thus an explicit effort from the teachers at this school to cultivate links with the parents and others within the locality. In her interview, Catherine expanded on how the school capitalises from the social networks and kinship of the people from Chacayes ('Chacayinos'):

The Chacayinos are very close with each other. And even more the people that is native from this area. I have become aware that they are all very united, for example, when someone needs help. They are capable of organising an activity on very short notice. There are few of them but I think everybody knows each other. I believe several of them are related, they are family. I think that aspect in particular speaks about the unity that they have.

Catherine Cuadra Interview

The role of head teacher at this rural school has given Catherine the opportunity to meet different individuals living or working within the locality. On Heritage Day, the ceremony at the school showed the ability of Catherine and her colleagues to bring diverse people together. Figure 6.6 shows the people attended the ceremony. These included old partners, elected officials such as the mayor for the commune and people that had recently become involved with the school. Not all partners were necessarily from Chacayes, but all of them had an interest or a role in the locality. According to Claudio, Catherine's predecessor as head teacher, the 'locality is completely rural and the school is the only public institution on site' (Claudio Contreras Interview), which suggests its relative importance within the local school system and for the community. He framed it as a point of access to public services provided from the municipal, regional and national level.



Figure 6.6. Heritage Day celebration at Chacayes School.

Image: [1] School Teacher; [2] Park manager Reserva Nacional Río Los Cipreses - CONAF; [3] Chacayes Community leader; [4] President Parent Association for the school; [5] President Chacayes Neighbourhood association. (*) Individuals referenced in the picture consented for their image to be taken and to be mentioned by name and role in the community.

The school also represented a strategic partner for some of the attendants. The presence of the head of the regional office for the National Forest Corporation (CONAF) was equally significant because this organisation was already represented by Alvaro Aguilar, the park manager (Figure 6.6, n. 2). The teachers and the park rangers collaborated in the environment workshop initiated by Catherine's predecessor. According to the park manager, this reserve-school partnership was part of CONAF's development plan, but the model was not followed everywhere in the country. This case was unique in that although it was a formal collaboration, it was framed within a paradigm of mutual support as 'neighbours', a term employed by both Catherine and Alvaro. They helped each other using the tools at hand to foster their relationship.

The presence of a community leaders and the president of the neighbourhood association (Figure 6.6, n. 3 and 5) also suggest that the school was perceived as neutral ground in local conflicts. These two residents of Chacayes had past differences as community leaders and represented different groups within the locality. The former was part of the original settlers of Chacayes, families that worked in the old estate, and the latter newly arrived settlers that bought land for their retirement or seasonal homes as part of a process of rural gentrification (Smith, Phillips, Brooking, Duer, and Kinton, 2019). The former was grandmother to several students, who formed a 'clan within the school', as described

by Catherine, and was accompanied by the priest, her guest to the ceremony. The latter had no family within the school but was there on official business as president of the association.

The president of the parents' association was also present at the ceremony (Figure 6.6, n. 4). Teacher-parent relations was an important sub-theme, with an additional layer of complexity in Chile. School choice depends on the families in Chile (Cal et al., 2019; Mizala and Romaguera, 2000), which, in conjunction with a voucher policy for funding (Treviño et al., 2016), means that having the trust of the parents is imperative to ensure the school remains open in the future. As Head teacher Catherine was aware of this dimension, but her interactions with the parents suggested that was not the primary driver of her work. Moreover, she acknowledged that local knowledge used in her lessons was mostly learned from her students' parents, which in turn helped her to build trust between the parents and the school.

In addition, teacher-parent relations were driven by a sense of support and complicity. The parents' association was important in supporting Catherine's work. It is from this association that the teachers received informal funding to maintain the school, in light of the spending restrictions they had as a public institution. The former head teacher, Claudio Contreras, described this underground but necessary practice as follows:

For example, with their resources they fund the trips of the parents, school trips, gifts and also presents to the teachers recognising their work. Within the constitution of every parents' association, they have an item that says support to the education management and so on. There are items in the budget that as a school we are not able to perform. For example, if we need 2 gas cylinders [for heating] the parents association buys them. If we need garden appliances for the school yard the parents' association buys them. All of those resources come from the parties we organise together. This is something relevant, they invest 1 million pesos and they got back a million and a half pesos of profit.

Claudio Contreras Interview

These different actors interacted with Catherine positioning her as spokesperson of the school. They recognised her importance and the local narrative that was built around the school. When Catherine was asked about who the most important partner was, she replied, 'All of them. Everyone contributes in their own way' (Catherine survey interview). The different stakeholders constituted the infrastructure necessary for Catherine's and the rest of her colleagues' activities at the school.

6.4.2. Building a platform

A platform is understood here as a driver devised by teachers to bring people together. The theme includes projects, workshops and small activities that acted as opportunities to work with others and set common aims. As part of teaching practices but also indicating how schools do politics and

transform certain agendas in policy (Ball et al., 2012; Ball, 2012). In this case, the politics involved to be able to live together in one locality.

The activities that Catherine and her colleagues organised at the school had an internal consistency that came from a defined learning programme. The teachers devised this programme as a framework for the learning activities. It enabled them to create concurrent activities for each of the six different levels they taught at school.

The platform consisted of three signature initiatives for the school, which acted as umbrella guidelines for the learning activities at the different levels. The signature initiatives were:

- **Valuing the Chiquillán legacy** (see Figure 6.7, n. 1). The Chiquillan were indigenous people who were mountain nomads. Their archaeological remains were relevant to the culture in Chacayes given the location of the current settlement on a gorge in the Andes. Their petroglyphs were only accessible by a horse ride with a local guide.
- **Recovering our roots** (see Figure 6.7, n. 2). This initiative focussed on the oral and recorded history of the locality. Several family members of the students were original settlers in the modern Chacayes and recording their family history became a relevant activity for the school.
- **Fostering environmental awareness and conservation** (see Figure 6.7, n. 3). The school's proximity to the Cipreses Natural Reserve provided a learning opportunity fostered by both park rangers and the teachers at the school. Students were aware of the local biodiversity and teachers were able to work with their prior knowledge. The students' environment included native species endemic to the mountain areas of Chile such as mountain trees (cipres, for example) and endangered animals (such as trichahue parrots) among other mountain species (including the puma and the guanaco).



Figure 6.7. Students' posters on the signature initiatives at Chacayes School.

Catherine's use of the signature initiatives had drawn attention to sensitive issues within the community. This was a key feature that positioned the learning framework as a platform for the teachers. It operationalised the larger narrative about the locality into manageable sub-narratives. Each of them important to the locality but appealed to different people. For instance, Catherine stated that,

The inauguration of the path at the reserve was an annex to the students' presentation at the school. For us it is related with our work fostering the second of our "signature initiatives" (sello) which is "recovering our roots". We wanted to do it in social sciences because it is related with the school subject as we want to recover the history of the area.

Catherine Cuadra interview

The signature initiatives also helped communicate the work that Catherine was doing within the school subjects to other stakeholders. In terms of the school's relationship with CONAF, the initiatives provided common terminology for two groups using different professional languages. Additionally, they helped Catherine accommodate the agenda of another organisation (CONAF) with the school's own agenda, which was focused on the learning programmes at the school.

We have the gap hours (“Horas de libre disposición”) from the Extended School Day programme (“Jornada Escolar Completa”). Two hours [per week] aimed to the environment workshop. This is related with our signature. We were granted an award as Outstanding Environment School. This is also related with our environment certification. Furthermore we have our plans linked to the school subjects such as Natural Sciences. For instance, especially in the first level, we teach everything related with living beings. In the second level we move forward to trophic cascades. Our plans are linked with the content from school subjects.

Catherine Cuadra Interview

The platforms used to enable teachers’ work had different modalities. For instance, while the Heritage Day celebration was a single event, the teachers at the school had been working on another initiative, the environment workshop, for several years. It was a joint initiative organised by the teachers and the park rangers, framed within the third signature initiative.

The workshop was one of the drivers of the school-reserve partnership. It was carefully curated, which suggests the importance of this partnership. The workshop had the features of a programme rather than a small project. It was an initiative that was fostered by two leaderships at the school. It had periodicity – running every Thursday – and a permanent status since Catherine became head teacher. It involved different teachers at the school and park rangers from the reserve with specific and prearranged tasks for each of them. Lili, one of Catherine’s colleagues, was the coordinator of the workshop and acted as representative of the school to the CONAF. Lili was the welfare officer at the school and she considered this workshop as part of her duties to foster students’ and teachers’ wellbeing at the school.

The teachers organised the workshop – part of its merit being that it was not part of any external requirement. They had autonomy in the design and implementation of the workshop. Lili explained that they used the gap hours (‘Horas de libre disposición’) that were limited but available to each school in the country, which are less regulated by the education authority or the national curriculum.

The importance of creating this type of platform had an additional financial value. As explained by Lili, the activities at the workshop helped teachers at the school to attract funding from public and private stakeholders, having the support from one entity facilitated a snowball effect on others.

We have some support from HidroPacific, so we can get some things from that side. CONAF also help us, and through our DAEM [Local Education Authority] we can also access something, for example the transport is now going to be provided by PacificHidro...

So, in other school trips we can use the funding from DAEM, CONAF to help with the food. So, everything is interconnected.

Lili Arriola Jofre interview

6.5. Teacher's ownership

6.5.1. Influence

Catherine's expertise delimited the extent of her territory as a teacher. It constituted her area of influence, as it was tied together by the actions and authority (G. Biesta, 2018) that the rest of the community in Chacayes recognise in her. Consequently, Catherine's actions were thus bounded in this regard by the professional responsibility that she had in the school. An indication of a professional ethics (Brooks, 2016) that regulated her actions as teacher but also justified her position at the school and locality.

However, teachers in this case study demonstrated different territorialities overlapping on a same space. Teachers' work was aligned with organisations within the local community rather than only the local authority. This was dependant on teachers' autonomy, which was also limited. In Chile their access to resources depends on local administrators and high-stakes assessments. However, an interesting feature of Catherine's practice was that she was able to bypass this issue by accessing other resources at her disposal safeguarding her professional decisions from external constrains.

The expertise of Catherine and her colleagues was recognised by others in the locality. These teachers had an understanding of the students' learning processes in the locality and knew how to manoeuvre the curriculum to make room for initiatives such as the environment workshop. This was recognised partially because it was part of the professional field of the teachers. The park manager recognised that, 'teachers at the school contributed with their pedagogical knowledge. We did not have that and we needed it to make the workshops work' (Alvaro Aguilar interview). Previous iterations of the environment workshop were conducted by the park rangers, but Alvaro suggested that without the coordination and insight of the teachers, the reserve workshops were isolated initiatives. The teachers' input into the design of the programme for the environment workshops solved issues on learning progression and the periodicity needed to achieve learning outcomes. For Alvaro, this recognition was thus not only of the intrinsic value of education but also of the teachers' specific contribution.

The teachers' expertise was also used for narrative building. Catherine was clear that her school was concerned about their work with parents and partners: 'We have worked as little ants without rest... [and] it has taken us so much time, it is something we have been doing from before, not just now' (Catherine Cuadra interview). Teachers at the school were not looking for recognition but rather aimed to recognise the locality in their own teaching.

The teachers' professional expertise thus provided them with a role within the community that extended beyond the school. Claudio, who was head teacher at Chacayes before Catherine, later became head teacher at another rural school within the same borough. He spoke of the differences between that new school and Chacayes, stating that "here" (at the new school) they participated in the celebrations for the day of independence, but 'up there', in Chacayes, they were the ones organising it (Claudio Contreras survey interview).

It was something that I implemented in 2013 and now is in its fifth year... we always do it. "We" as I was still there [correcting himself]. We organised it on the first week of September. The first Saturday of September was the "Chilenazo" of the Chacayes School. We cooked a spit roasted lamb, you can think that it was expensive but it was the first thing that was sold. It was like a traditional party. But with a muleteer touch. Muleteer because people up there work as wranglers. So their food is about that... this year's theme is going to be Latin America.

Claudio Contreras interview

The school activities had a gravitational effect at this rural community. For instance, the same artist that worked at the school was asked by Catherine to create the graphics for the September event (see Figure 6.8). The visual narrative that previously belonged to the school was now part of a community event.



Figure 6.8. Independence Day advertising.

Acknowledgement: The picture is reproduced in this document with permission of the artist, Julio Jeanmaire.

Both, Claudio and Catherine, positioned themselves at the centre of the Independence Day celebrations. Being a teacher at this particular school came with a communal responsibility, suggesting the importance of their role within the locality.

Conaf brings their people to cut the grass [at the site of the event] and do some maintenance. So it is community work. Everybody works at this: the parents' association, people at the school, the teachers, Conaf is supporting as well, the Wranglers Club ("Club de Huasos"), the football club takes other responsibilities, and the private company gives snacks to the students in the [Independence Day] parade. We involved all the people that it was possible to have a good organisation for the parade.

Claudio Contreras Interview

I think the people at the locality value their school. I think they value the work one is delivering. I think that is important... but this has taken time. It is not something that happens now. It is something that was gradual and our signature. For example, when we organise the activities for the "Creole Saturday" or "Chilenazo". We have support from the people. They are accustomed to the school organising the event. They prepare themselves to that. Even if we have bad weather, like last year when there was heavy rain but the party was full of people. The people shows up to support the school.

Catherine Cuadra Interview

The teachers also show a sense of ownership of their work. Catherine's and Claudio's accounts of the Independence Day celebrations indicated what they were capable of doing in collaboration with the people from Chacayes. In turn, the centrality of their role at these celebrations facilitated their work at the school – not only because they received funding to support students' activities but because it was also a source of legitimacy for their professional practice, in that people in the locality were depending on them to run these activities.

6.5.2. Collective memory

Catherine showed how she was aware of the school's history as well as the genealogy of her predecessors at the position of head teacher. Catherine's territorial outreach was possible because of the work started by previous head teachers, Biesta (2018) has suggested that this type of historical knowledge can enable agents to build trust within their own communities as part of the political work that is required to sustain different groups aligned with a particular project.

Catherine's and Claudio's accounts of their initiatives in the Independence Day celebrations were significant because of their emphasis on the importance of the continuity of their work. Catherine highlighted that such work 'took time'. As such, she recognised the work of her predecessor and the foundations that made possible her activities as head teacher.

Although Catherine was aware of the positive momentum of such activities and their reflection on the school, she was also aware that this could change. For instance, the 2010 earthquake left the school using containers (see Figure 6.9) and problems in the coordination between the regional and local authorities and the head teacher created a sense of distrust among the people of the locality. There were families that moved their children to the school in Coya, the closest locality, and there was a discussion about closing the school.

Teachers at the school and the local authority thus campaigned for a better facility for the students. When word came of a Canadian emergency building that was in disuse in another area, collective efforts were undertaken to bring it to Chacayes. The municipality finished the installation with emergency funds. Even though this provisional building was still in use by 2018, the earthquake became part of the history of the school, providing a lesson on how an event of that magnitude can help to bring people together to achieve a common goal. Catherine and Claudio also both observed the importance of cultivating good relations with the neighbours as they got word of the emergency building from “friends of the school”.



Figure 6.9. Multi-purpose containers in Chacayes.

A separate issue is the memory about the places in Chacayes. The old school building and the containers were reminders of previous periods for the school and a particular moment in the history of Chacayes. However, other places such as the ‘Apestaditos’ shrine were part of legend. As a place, the shrine persisted over time. Moreover, no one in Chacayes could date the events that prompted the story, but they knew it happened at some point in the past. The place thus represented a legend, almost separate from time, which was important in creating a sense of community within the locality. Catherine was able to recognise the meaning of this place. Moreover, she helped to establish its social importance within the locality. However, there was a potential problem in that for some of the community leaders and grandparent of several children at the school, the story of the ‘Apestaditos’ told by the school was only one version of it. Catherine managed the situation by acknowledging that

each family told the story in a different way. However, the community leader noted that the school's version of the story could be transmitted to people outside the locality and that was of importance. In doing this, the community leader was positioning the school version of the story as the official history of this event.

It was also important that this story was taught at the school. The story traces back to a time when Chacayes was not a locality. Since then, a group of workers at the estate created the 'Siempre Verde' society, which collectively purchase part of the land from the Chacayes estate. This decision shaped the locality as it legally bonded any decision made on the land to a collective rule based on the shares of the land held by each member. The members of the society became small-holders called 'comuneros'. They have since sold sectors of the original land to create new developments and some have lent or subdivided the property to accommodate later generations of their families. The majority of the students at the school are the third and fourth generation of these families. Today, the construction of the memory about the place explains the origin of the ownership of the land today and shapes future changes in the locality.

6.6. Discussion and conclusions

Catherine's case has shown an operational school-based territory. In this regard, the professional practices that Catherine performed as a teacher in the school created a professional space that articulated different spatial networks in the locality.

Catherine's case shows how teachers work involves more actions than the ones conventionally understood as classroom practice (F. Araya, 2005; N. J. Graves, 1983). However, there are few studies that explore this phenomenon from the classroom point of view such as Brooks (2007; 2016) and Arenas (2009) that develop a professional approach without necessarily framing the phenomenon of interacting with the school context as a leadership and management issue.

Ball's approach on micro-politics (Ball, 2012; Ball et al., 2012) was key to describe how teachers negotiated their practices with other stakeholders and maintained control of their agenda within the locality. However, Ball (2012) focus on conflict and domination is not accurate when the default setting in power relations is asymmetrical. Teachers' perceived autonomy at the school had the downside that their success or failure was dependent on their own efforts. Catherine and her colleagues had to maintain good relations with most of their stakeholders because the scenario could shift in any moment. Even though the teachers at the school attracted parents and partners with activities and narrative building, it was easy to lose their support if the circumstances shifted, as the memory of a

catastrophic event such as the earthquake demonstrated. Catherine's leadership carefully managed the status quo of the recent gains they had as school to sustain it in the future.

In addition, this case contributes to further develop Brooks (2012, p. 305) argument on being a professional, 'this continual reworking of the professional project, which enables the professional to draw upon their "epistemological authority"'. In Catherine's case, her professional project intertwined her subject and pedagogical knowledge with the locality. It created a storyline on 'Identity' as a discourse that allowed individuals to internalise their everyday practices as part of an evolving story about the locality (Geertz, 2000). The simple process of storytelling, by learning the names, places and stories of the land meant that students "progressively identify with the territory they inhabit and [made] it socially and experientially 'their own'" (Arhem, 1998, p. 96).

In that process Catherine evidenced themes on how space can be produced but also how knowledge was structured to be communicable to others. Brooks (2012, p. 307) has argued that 'by emphasising the significant contextual factors, researchers will enable local experts to interpret for themselves the transferability to their local context'. The themes evidenced in Catherine's case are connected and illustrate Collins and Evans (2007) argument on how a particular pocket of information can be granted the 'knowledge' status by being shared with an epistemic community. Those epistemic communities are situated and what applies in one context might not very well apply to another (Kuhn, 1996). However, the shared understanding that comes with the generation of knowledge is not bounded only by a notion of situatedness (Lave and Wenger, 1991) defined by relations of proximity. Neither by universalistic narratives (Santos, 2017) that generalise every day experiences and practices (Catling, 2014; Roberts, 2014). They require an active and continuous production and even appropriation of different narratives. When spatially encapsulated by an agent these practices of narrative building create a particular territory.

Defining territory is currently an issue in South American geography. Santos's (2017a) theories guided the analysis as an approach to the phenomenon. But only recently Haesbaert (2013b) contributed to state that this was a problem for research, as more descriptive language from the field of geography is needed to further this type of studies. This chapter seeks to contribute in this discussion and also pioneering its application in educational settings.

Even though territory has many similarities to the concept of place (Massey, 2008; Tuan, 2011), the decision of using the term territory stems from Catherine's organisation of her own practices. Places were important in her practice but were subsidiary to her overall narrative about Chacayes. Furthermore, she was invested in the production of this space (Lefebvre, 2013) through the knowledge and expertise she had as a teacher.

The decision of using territory instead of place also addresses the need of epistemic justice (E. Anderson, 2012) within the research, as the term territory helps to describe and communicate the importance of Catherine's work. Territory is an important threshold concept in South American geography that is also part of the everyday geographies of people.

The issue of ownership is important in a territorial practice. As Lovell (1998, p. 12) argues 'the production of territory is itself embedded in the production and reproduction of knowledge, both processes being also simultaneously intertwined in the creation of highly localised modes of settlement and in the ... transcendence of localised discourse'. Catherine's colleagues, parents and partners seemed to associate her territory as an agent in itself that influenced her practices as a teacher, as well as considering her territory as a ductile space influenced by Catherine's actions.

Finally, in approaching this type of argument we should consider a cautionary approach because the teachers' practices were, to some extent, social engineering the locality. Brauchler (2017, p. 439) evokes Popper argument on piecemeal approach to explain it:

The piecemeal approach does not believe in an 'absolute and unchanging ideal', but operates at various smaller 'building sites'... As Popper emphasises, 'piecemeal social experiments can be carried out under realistic conditions, in the midst of society' and allow for continuous readjustments; they don't aim at perfection or the greatest ultimate good, but at fighting the most urgent 'evils of society' and at finding a 'reasonable compromise' with democratic means.

The production of space (Lefebvre, 1991; Santos, 1994) puts an ethical strain in professional ethics as producing a territory involves to socially manufacture it. The teachers at Chacayes School were skilful in narrative building and their authority influenced the collective memory of the place. They shaped and managed key features of the locality for a common good. However, Popper's argument illustrates how territories are powerful spatial entities in the hands of teachers when the conditions allow it.

7. Chapter 7 Developing an activist teacher identity.

Reterritorialisation of political projects and imagined geographies

7.1. Introduction: José

In the previous chapter, we focussed on the process of building a territory, as expressed through a teacher-community story. Catherine's professional practice in her school in the mountains represented an agentic process of narrative-building based on school-community relations and driven by the locality's imagined geographies. In this chapter, I will focus on José – a subject specialist secondary teacher, in a school located in the valley on the edges of the region's capital city. While, Catherine's practice represents the quintessential example of a territory operated by a teacher from its own school in a process of production of space (Lefebvre, 1991), José's case is a counterexample.

José's case, however, suggests a different approach that is realised in the political project that he foresees for the territories in which he participates. The relevance of José's case rests in how – during the early years of his career, he has reterritorialised (Figure 7.1) his professional practice (Deleuze and Guattari, 1996; Escobar, 2015; Haesbaert, 2013b) to make possible a scenario where he could accommodate his multiple professional identities (Brooks, 2016) and spatial trajectories (Pumain and Sain-Julien, 2014).

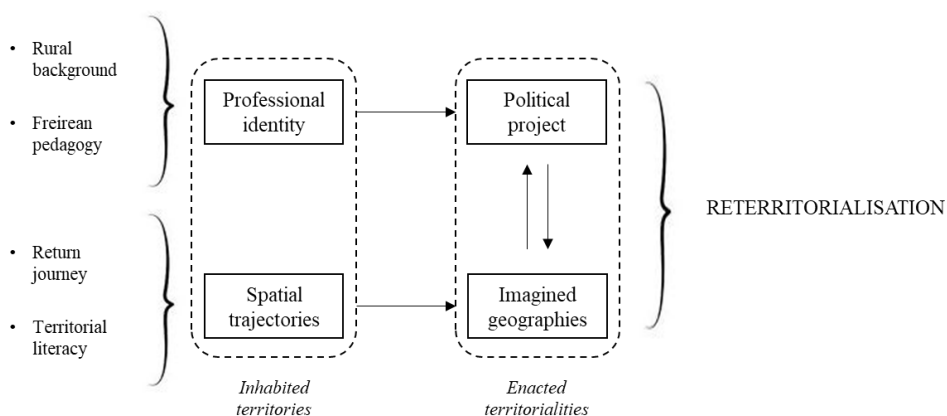


Figure 7.1. Reterritorialisation.

7.2. Teacher activism

During the shadow observation, José was active around the school, passing information to the teachers about the upcoming vote on the negotiation with the Ministry of Education. He is one of the History and Geography teachers and the representative for the teachers' union at the Augusto D' Halmar school in Rancagua. In the picture (Figure 7.2), José is in the teachers' lounge alongside the ballot box used to vote that morning. He later commented that in doing these same activities, he had lost his first position in 2012 as a teacher in the secondary school of his hometown in Doñihue. In the

car on the way back home, José explained that his political views, activism and the support that he has shown to the unions are seen as disruptive practices by school administrators.

José was not on a full contract in Rancagua, and divided his time with another school 40 minutes south, in Quinta de Tilcoco. Roberto Vasquez, José's colleague in this school and president of the Teachers Union in the district, described José's involvement with the union as an advisor with expertise on public policy.

José provides data about educational policy to the Teachers' Union because he is up-to-date about what is going on. This is a result of his studies. He has more connections with the academic world than I do, particularly because of this position in which I am as a teacher in the public system that constrains your time to specialise and maintain your academic knowledges up-to-date.

Roberto Vasquez's interview

Despite having only a few years of experience, after a year working in Quinta de Tilcoco and a couple more in Rancagua, José was taking responsibilities because of the expertise his colleagues recognised in him. After several years working as a substitute teacher, he was hired by the school in Rancagua and then in Quinta de Tilcoco. This regime kept him mobile between the capital city of Rancagua, the town of Quinta and José's home in the town of Doñihue. Each place was located in different districts, 40-minutes' drive away from each other. This was a regime he was used to as his rural childhood having kept him moving from his native Doñihue to the nearby towns of the area and then, when he was older, travelling daily to the city of Rancagua to access secondary education.



Figure 7.2. Jose Villagrán. Teacher in Augusto D'Halmar school in Rancagua and Liceo República de Italia in Quinta de Tilcoco.

José's experience in rural contexts is about moving in the landscape interface between town and country. His activism was located in a hybrid rurality that contested the urban-rural dyad (Corbett, 2013). On the one hand, the primary school in Rancagua was reclassified as urban in 2018 because of the urban sprawl of the capital city. Located in a peri-urban area, on the edge of the region's capital city, it has more than 376 students and 21 teachers. On the other hand, the secondary school in Quinta is located in the urban centre of a rural commune which makes it a local hub for 680 students and 29 teachers, catering for all the young children in the area that transition from primary to secondary school.

7.3. 'I know where I come from': Developing an activist teacher identity

'I know where I come from' is a statement that José mentioned to his students in lesson observations and then again in the interviews with him. He continuously stated this as an internalised story that provided an explicit rationalised understanding of his position as a teacher.

J. My driver is that I know where I come from, so I know where I am and where I should go. Because of that, I feel interpreted by the work of Paulo Freire and the School of Frankfurt. I am being obvious but that is my line of action.

José Villagrán's debrief interview

The statement 'I know where I come from' was a device used by José to link his professional identity as a teacher and his personal history. In this way, he built a professional narrative where Freirean pedagogy and his family history converged in a single story of political activism.

7.3.1. Identity on the fringe of society

José established a direct relationship between his professional identity as a 'critical – left-wing' teacher with his family history. In the debrief interview, he stated that 'he had been working with the oppressed' on the fringe of society because 'he is one of the oppressed'. He included his students from public schools in this group as his observations were entangled with his beliefs for a need of change in the material conditions in which his family and other people in the same socio-economic group have had to live with.

My mom is a teacher. She began her studies as a teacher when she was 40. We had issues before, economic issues so she could not do it before. When the opportunity presented she began studying because of me. So I could study. I come from a family of rural seasonal workers [temporeros] and my mom worked while she was studying. She had a vocational qualification.

José Villagrán's interview

The influence of José's mother on his professional identity is multi-layered. It involves defining José's family background as seasonal agricultural workers, José's choice to be a teacher and the influence on his political activism.

José's family experience as seasonal workers suggests further connections with rural agricultural labour and what that role implies to the specific conditions of rural poverty (Berdegué, Carriazo, Jara, Modrego, and Soloaga, 2015). Being a seasonal agricultural worker in Chile involves participating in an informal and sporadic occupation, particularly concentrated in the summer months for the harvest season. During the winter months, when work is in short supply with only occasional winter jobs and harvesting (Figure 7.3), the drop in the permanent farm labour force is particularly severe. Labourers are unemployed and left to pass the winter relying on their summer savings and operating small family businesses.

Rural poverty affects the youth in rural cities and smaller localities alike. José's work in the secondary school of the remote locality of Quinta de Tilcoco was no different.

We need to release the pressure valve that is building up in the neighbourhoods [poblaciones] for the sake of our youth. On a territorial level, the drugs [pasta base] are already here in Quinta de Tilcoco. Drug dealers have taken advantage of the vulnerability of the people because of the structural violence that they have suffered from their childhood. In Quinta de Tilcoco, the violence is from early childhood: the detachment of the parents, broken families, kids living with their grandparents or only one of the parents. The kids later reproduce the violence that they have learnt ... [they] have been left behind by the world and neoliberalism.

Roberto Vasquez's interview

José's understanding of the realities of his students and his personal involvement as a member of a rural family is considered a relevant experience by his colleagues, with multiple ramifications for his professional practice.

You cannot stay only doing classroom practice but you have to move forward toward the communities to integrate with them. This is the way to understand the context. To know about the people that we are going to educate.

To know about the communities involves entering the territories. To know about their problems and possible solutions. It involves turning around the vulnerability that exists in Chile as a tool of emancipation for the people. That is the territorial work that one should try to do from the classroom and on a union level as well.

Roberto Vasquez's interview

During the lesson observations, José voiced his concerns about seasonal workers and communicated to his students how his family, which was still employed in the countryside, had seen recent changes. 'My uncle' says Jose in one of the lessons, 'has seen how the migrant seasonal workers are treated'. Seasonal agricultural work is a job that has been historically performed by an aging population of rural dwellers.



Figure 7.3. Seasonal work - Potato harvest in Coinco.



Figure 7.4. Seasonal workers in El Tambo.

New groups of seasonal workers have become increasingly heterogeneous and mobile (Ramírez-Miranda, 2014), travelling around the valleys following seasonal work. They include nationals from intermediate cities and newly arrived migrants (Figure 7.4), particularly from Haiti, whose lack of job security stems partially from the xenophobia and discrimination they experience (Audebert, 2017). José continues in an informal conversation after the lesson reflecting on how Haitian workers ‘represent a new precarious class that students should know about to reflect on their own class privileges’.

Overall, the conditions of rural agricultural labour have negatively impacted the expectations of rural youth, which has moved out of rural spaces (Rimisp, 2020) or have sought permanent, but precarious, jobs as operators in the agroindustry. In the globalised rural landscape of the Cachapoal province, that means working for one single transnational company (Agrosuper). In some of the province districts, including the ones that José has worked in as a teacher, up to 96% percent of the surveyed teachers declared in the questionnaire that their pupils’ parents were working for Agrosuper. José had witnessed this shifting rural landscape and he voiced his concerns in the interviews on the environmental and social impact on the rural countryside in which he grew up.

José is also following the legacy of his mother as a teacher but in a different and more challenging professional context. People studying to become a teacher in Chile are likely to be the first college-educated generation in their families. This implies higher expectations in terms of social mobility (Orellana, Guzman, Bellei, Gareca, and Torres, 2017), and a professional status that José’s mother had been able to achieve. However, in José’s case, achieving the professional status is even more challenging as young people in rural areas is less likely, by at least half, to complete HE studies (Rimisp, 2020). José had to leave his home region to become a teacher, which involved additional living costs. He mentioned in his interview that he had had to interrupt his studies several times because of family and economic reasons, but he finally completed them following a two-year delay.

In achieving a professional qualification, José unlocked a first challenge. However, the professional status of a teacher has changed since José’s mother started working as a teacher. José lived through the expansion of higher education (HE) in Chile during the 2000s, a process that increased access to ITE programmes nationwide. As Orellana and others (2017) have argued, access to HE in Chile is built on the promise of a professional qualification and its implications for class mobility. However, like others of his generation, José has had to face the challenges of an unfulfilled promise. José has been rotating around different schools since he graduated in 2012. The unregulated HE expansion resulted in an oversupply of teachers in the school system (Araya-Ramirez, Quiros-Arias, and Ruiz-Hernandez, 2015) which negatively impacted on an already low-paid job (OECD, 2019). Since 2012, José has come

back to work as a seasonal worker a couple of times when he was not able to find a position as a teacher. At the time of this study, he seemed to have achieved some sort of work stability but at a personal cost. He was working part-time in two schools in Rancagua and Quinta de Tilcoco, which are two cities 39 kilometres apart, and each school is one hour away by car from his home in Doñihue.

Furthermore, José described himself as being in debt at the start of his career because of the high tuition fees and being employed in a stagnated profession without job generation and poor contractual conditions. José painted the conditions that described himself as a newly developed college-educated working-class person, which is a professional experience that was significant in conjunction with his seasonal agricultural worker background and his family narrative of political activism.

[My granddad] was never in jail but he had to hide amongst the Mapuche [indigenous people] near his home city in Los Ángeles. My family was, to some extent, a victim, directly affected by the dictatorship. I lost some of my relatives during that time. So, because of that, I would hardly be a person that belongs on the other side of the aisle. So, maybe because of that I studied what I did. It was my destiny, as the forces of Mother Nature [pachamama] took me there.

José Villagrán's interview

José's reference to his family experiences during the dictatorship of 1973-1989 is key in his self-identification as a political activist. He also incorporates it as part of his professional story as a history and geography teacher. José is the only case teacher that openly spoke about this. The depiction of the traumatic events that his relatives suffered might have happened before he was born or when he was still a baby but they are significant because they are part of the living memory of his family. The return to a tutelary democracy (Lechner, 2002) in 1990 did little to bring closure to the families that were affected in this period and, according to Stern (2002), an important part of the population just went silent about what had happened so that they could move on. Just as the lives of some of his family members were terminated, José suggests that the political projects that they represented were cancelled as well.

My mom was raised in Santiago, my grandma was from Doñihue. So, she kind went back to her origins when she left Santiago. Everything was quieter [in Doñihue] and people did not see what was happening in Santiago during the dictatorship. She brought some books with her that she later buried in our garden because she was afraid someone could find them. Now those books belong to me.

José Villagrán's interview

By recovering the books, a piece of family history loaded with a sense of censorship and prosecution, José inherited a piece of history of the country where political ideas and projects were put on hold during the dictatorship but were still achievable to him in the present. Much of these ideas about Freire, Marxism and social justice are still considered, to some extent, to be contraband by people who had had to live through the years of the dictatorship but, having been raised during the times of

return to democracy, José articulated those ideas freely during the interviews and shadow observation, indicating their importance for his own professional practice. Doñihue, his hometown and a rural village in Cachapoal province, had its own agency in this story as well, as a place of refuge and connection with José's past and the ideas that have articulated his professional practice.

7.3.2. Freirean professional identity

José's professional identity coalesced in the understanding that his practice followed a Freirean pedagogy. For him, this was threefold. First, it involved an interpretation of teaching as a political practice. Second, he considered teacher practice should be informed and, therefore, organised by a way of thinking. In his case, critical thinking. Third, he considered that that particular way of thinking should be transformative, and critical of the political and economic system.

Jose positions Freire's pedagogy as the mediating link between his rationalisation of professional identity and the notion of politicised practice.

V. What do you mean by feeling interpreted by Paulo Freire?

J. I keep asking myself about this but [it is because] I feel I identify with left-wing politics and critical thinking. I am drawn towards Freire's proposal of collective involvement and the notion that you are not alone in the struggle.

Jose Villagrán's debrief interview

José's understanding of politics goes beyond party politics as it involves a particular notion of professional ethics that informs his teaching practice. In his understanding, 'every educational practice implies a concept of man and the world' (Freire, 1970, p. 205). Ideology plays an important role in defining an individual's worldview but, moreover, it outlines his collective involvement with others – including his students.

Your political position is the way you face life. Your political stance determines your way of living. It is not just the way you present yourself to your students but a need to be coherent in the collective actions that you take with your students. This is a way of life as a human being. It is the values, ethics and morals that one communicates to others. This is linked with your own worldview or your ideology, if you would like to call it that.

Jose Villagrán's debrief interview

In José's narrative, the relationship between politics and teaching involves understanding everyday practice as the embodiment of political ideals. José's views on pedagogy involve paying attention to the political nuances of his stance. José's political position 'as a way of life' echoes a particular version of South American politics which draws from Che Guevara "new man" (Martinez-Saenz, 2004), a notion of class struggle that involves developing a new consciousness driven by moral rather than material goals. José highlights the importance of 'professional commitment' by becoming the

embodiment of the political changes that society requires. He reinforces this idea by stating in the interview that his views belong to this “old guard” notion of socialism. This acted as a framework to Jose’s Freirean perspective of pedagogy which, in turn, is no coincidence, as Freire was influenced by the same theoretical matrix when he elaborated his pedagogy of the oppressed.

Similarly, José places critical thinking as an important facet of his professional identity. He considers himself responsible for fostering this particular type of learning with his students. He circumscribes it within the scheme of his subject knowledge, and his views resemble Lambert and Morgan’s (2010) argument about school subjects as embodiments of different forms of critical thinking that are mediated by specialist disciplines. However, critical thinking here has its own particularities since José thinks of it as ultimately defined by its identification with the community of the oppressed. This understanding shapes his identity as a teacher, and even as a subject specialist.

What it is most beautiful about this profession is that it gives you a unique understanding of humanity. Not only an academic understanding but in the appreciation of people’s everyday practices. By having this understanding and tools one has the obligation to make them available to the excluded, the dominated, the poor, and the exploited. I am a tool that serves a deeper form of critical thinking.

Jose Villagrán’s debrief interview

Jose’s interpretation unfolds a distinct example of Latin-American critical thinking in education. It is quite distinctive from the OECD’s competence-based (Vincent, 2008) approach or even the capabilities approach (Solem et al., 2013) because Jose’s argument is about purpose and the one of his school subject in the service of a specific community that has been historically marginalised. José’s depiction of his first position as a teacher contextualises his concern about educational inequality and marginalisation by linking it with an overarching narrative about municipal state schools:

When you enter the classroom, you face challenging groups of students that carry stigmas with them. The school was called the ‘municipal kennel’ because it received all the cases with behavioural and academic issues. Young people attended that school just to get their secondary education certificate – with no larger expectations. It was like the song ‘The Dance of those left behind’

– *“There are some that are taught secrets and you are not”* [singing]

Those that were not taught the secrets came to that school. Those that did not have any life expectations to become something or continue their studies at university. This was a *liceo* that was marked by the legacy of the dictatorship.

José Villagrán’s interview

In a world of dominators and dominated, Jose argues, ‘I am with the latter, I got my degree to teach in the places where those people attend school, so they cannot be dissociated or alienated. That is my driver to be a good teacher’ (José’s debrief interview). In Jose’s understanding, critical thinking is important. It is a liberating tool because marginalisation creates alienation and lack of awareness amongst people about their own conditions, of their relegation in society.

Jose's critical thinking notions are also informed by philosophers' interwar critiques of contemporary capitalism. He declared that philosophers from the school of Frankfurt, Habermas and Adorno being the two mentioned in his interview, were a profound influence on his understanding of the world. They also provided the analytical tools to comprehend dialectic as a method to unfold the inherent contradictions of education in Chilean society.

As a form of analysis and understanding of the world, dialectical materialism makes sense to me. Dialectics, as a form of knowledge, enables us to understand the world as it is. I also grasp historical materialism as a tool of analysis to understand society in all its facets: economic, social, etc. I believe that these forms of analysis converge in and influence the work of Paulo Freire in his seminal ideas about pedagogy. His claims about society and the involvement of certain actors are appealing to us in that they come from socialist social movements and the leftist old guard.

Jose Villagrán's debrief interview

José's interpretation of the School of Frankfurt's influence on Freire's ideas enables him to criticise 'content-delivery pedagogies'. Freire's reception in Chile comes from his work in the country during his exile from the dictatorial regime in Brazil (Gajardo, 2019). At that time, he developed part of his literacy training method in rural areas of Chile which were taken in consideration when developing national literacy campaigns and were later associated with the 1960s' process of agrarian reform that politicised the countryside in Chile (Freire & Giroux, 1985). It is unclear the extent of José's understanding of Freire's work, but he directly appeals to Freire's method of alphabetisation to criticise the curriculum. He considered illiteracy as the problem with education. At the end of the day in the school of Rancagua he commented that the problem 'was not teaching content but the content in the curriculum was empty' making his students 'political illiterate, ill-prepared to face the social challenges of today'.

In José's case, enacting (Mitchell, 2020) critical pedagogy is an important form of classroom-based teacher activism (Oyler, Morvay, and Sullivan, 2017). In linking the use of dialectics and Freire's rationale, José is describing a set of tools for practice which he deployed to understand the context of teaching and working in socially and politically challenging contexts.

Contextualisation is a key theme in José's understanding of pedagogy. It involves approaching learning as a dialogic process with students, where teachers learn about pupils as agentic counterparts. In this framework, context is approached by José as territory: a space to be understood as the reservoir of the students' situated meaning. This notion of educational space is multi-layered as it intersects different dimensions of the students' everyday experiences. The students' territoriality has a steering effect on José's practice as it is the starting point in the process of didactic transposition, a practice of scaffolding students' learning processes (Wood, Bruner, and Ross, 1976). In this case, didactic

transposition takes the form of situated practice (Lave and Wenger, 1991) to make José's teaching practice meaningful to his students.

I think educating goes beyond teaching a particular subject. It is an art. It is a profession about getting involved with people –working with people. That, for me, involves more than just a question of what to teach but how, why and what for. I understand this because to be able to do something, something basic like the didactic transposition, in order for learning to make sense, you have to make it meaningful, meaningful in a territorial context. A cultural, historical, social and economic context where the student is situated and positioned. This is what we study, this is teaching in a school subject.

José Villagrán's interview

In José's understanding of contextualisation, students are historical agents who have their own forms of knowledge. By presenting students as part of a historical narrative, José is highlighting their role and capacity to make history on the same statutory level as the 'founding fathers' of the country or other political figures. Children, in José's understanding, have the capacity for transformation.

I have to understand the situation. I have to understand that the student is a historical subject [sujeto histórico] with its own historicity. You can conceptualise students' prior knowledge taking this into consideration. Their feelings, drivers and everyday reality.

José Villagrán's interview

José uses his professional knowledge to read his students' context. He deploys his subject expertise on history and geography to elaborate a theory of understanding that envisages students as both historical and situated agents.

There is a relationship between the students and their everyday experience and nearest kinship. So, I propose that in whatever subject you are teaching there should be a connection between a broader national history and children's sense of belonging – a relationship with their personal and family stories, their local history, personal and social memory. You have to move from the personal memory of the individual, move beyond its psychology towards social psychology and then to look it from a social point of view from the social sciences and humanities. Only then can you see all the elements. It is a fun jigsaw puzzle that you have to put together in your daily practice as teaching is also a craft.

José's interview

This elaboration has two main features. The first one is that students cannot be understood as individuals operating on a vacuum, they are part of a collective. Second, the notion of students as a social agent requires a process of understanding that requires moving away from individualistic and psychologised interpretations of what students do. José's statements do not suggest he is elaborating on a hierarchy of knowledge but is operating in a dimension of teaching as a craft, a form of professional knowledge that he and his colleagues might deploy at school as part of their daily practice. It unfolds as a territorial mastery that builds on the students' sense of belonging across the multiple spaces they populate every day.

However, understanding the students’ territory is a passive ability that is part of José’s classroom-based activism. The key for a ‘liberatory practice’, as José argues in his interview, concerns the questions that compel the students to make links to their social reality and avoid alienation. In his final lesson of the term about the “encounter of two worlds”, he guided his students using the following questions transcribed in the same order as were asked in the lesson:

<i>Lesson episode</i>	<i>Scaffolded questioning</i>
<i>Recap from previous lesson</i>	<ul style="list-style-type: none"> • Why did Christopher Columbus travel for the first time to America? Why were new trade routes important? • What kind of economic system existed at that time? • How can we characterise the landscape that the Europeans saw at that time? • Why is this continent majority Catholic?
<i>Extended recap – focus on how and why Europeans came to America</i>	<ul style="list-style-type: none"> • How did the Spanish conquistador perceive the indigenous people? • How did the indigenous people perceive the Europeans? • Can you imagine what it means to have a dialogue with a person that speaks a different language?
<i>Plenary</i>	<ul style="list-style-type: none"> • Have I told you about my experience in Quinta de Tilcoco [José’s second job]? • Have you met a Haitian here [in Chile]? • Can you imagine what it means to be poor, black and to speak another language here in Chile?

Table 7.1. 'Encounter of two worlds' Scaffolded questioning. Lesson observation 05/07/2018 Year 8 class, Augusto D'Halmar School, Rancagua.

In this history lesson (Figure 7.5), José aligns his questions to elicit compassion from his students and use this sensitivity as a vehicle to inquire about the reality of migrants in the country. The intended outcome of the lesson is about generating empathy towards another human being. It starts with the title of the lesson ‘the encounter of two worlds’. Furthermore, he moves through content-related questions towards a critical appraisal of the perception of the other: Europeans and Indigenous people. The body of the lesson focuses on this and how perceptions can be deceitful. The lesson culminates with Jose appealing to his student to reflect on what it means to be ‘the other’ in somebody else’s mind. José acknowledged in an informal conversation after this lesson that this line of questioning was not entirely planned but that he wanted to end the term with a more reflective lesson. He declared he was committed to the idea of making his students sympathetic towards Haitians as they represent a newly marginalised group in other rural places in the province where he and his family had been working recently.



*Figure 7.5. 'Encounter of two worlds' lesson. Lesson observation 05/07/2018.
Year 8 class, Augusto D'Halmar School, Rancagua.*

7.4. The return journey: Teacher spatial trajectories

The return journey is a theme within José's professional narrative with multiple meanings. It refers to his return to his home region after completing his ITE programme. It marks the beginning of his professional career and triggers a manifold process of negotiation by which he comes to terms with his own multiple spatial identities as both a native and an outlander teacher. This understanding later comes as an advantage in his professional trajectory since it enables him to advance through the early stages of his career.

7.4.1. 'Revisiting the territory': reconciling professional knowledges

Jose's first professional experience is – notably – to relearn about the place that was his home. He got his first position as a teacher in the secondary school of Doñihue, his hometown. While rural youth is internationally dominated by a narrative on 'learning to leave', in which rural communities are places to be left behind (Corbett, 2020), José's experience depicts the inverse process of learning how to come back.

In the coming back journey, however, José engaged in a professional process of adaptation where his identity as a native of Doñihue collided with his self-image of an adult becoming a professional.

You have to understand that I was several years away, so that is like a double-edged sword ... There is an entire generation that I met as a child that now are teenagers. I can see that. You have to picture that when I left, reggaeton was just starting and now it's a classic!

José Villagrán's interview

José called this double process of negotiation and adaptation 'revisiting the territory', a conscious practice of reconsidering a place that he already knew but from a different perspective. It served as a place-based induction period to his own homeland while he was embodying his role as a teacher. He

found himself doing this when he first came back to Doñihue, but then he acknowledged that he had to repeat this process every time that he started working at a new school.

I understood several things that I hadn't realised about [Doñihue] before. It was meaningful because I revisited the territory where I used to live and where I was raised. I took another look at it from the perspective of an educator. I was not looking at it as the child I was but as the adult that I am now, older and more knowledgeable. I am looking at it from this academic distance, I don't know, from the bubble that involve me being at university. That's what happened to me with the territory, returning to the people.

Jose Villagrán's interview

In the process of 'revisiting the territory', José noted the importance of his subject knowledge to understand the places that he had known his entire life. He highlighted how this knowledge provided him with enough 'distance' to 'judge objectively' and to expand his understanding of this territory based on the additional conceptual tools that he had acquired at university. However, this also presented José with a professional dilemma (Brooks, 2016) that involved generating the skills to handle different pockets of knowledge that were generated in different places.

José acknowledged the importance of subject-academic knowledge but, by doing so, there was room to contest previous knowledge generated in the niche that he had as a native teacher.

I know about the divisions, for example, between Lo Miranda and Doñihue. What it means to have Agrosuper at your doorstep, the place reeking of pollution. I know [people from Doñihue] mock people in Lo Miranda because of that; they say they smell like chickens. It is the naughtiness of the working class. It is part of the local culture that I am used to and know about.

Jose Villagrán's interview

The process of 'revisiting the territory' involves balancing professional knowledge that informs or supports José's professional practices. In this process, the knowledge elaborated on José's formative years in Doñihue should not be taken lightly.

José's connection with his home locality is part of a spatial cycle. His responses in the questionnaire show that; even though his mother was from Santiago, he was born and raised in Doñihue. He attended the primary school of the locality and then participated in the rite of passage of many rural teenagers that had to travel or migrate to the urban centres and cities of the province to access secondary education. He received his initial teacher education (ITE) in a different region, only to later come back to Doñihue, where he currently resides. This spatial cycle has deeply influenced José's current professional identity as his positionality is informed by the product of years of socialisation in rural spaces.

It is not just that José is indigenous to Doñihue, but his background is so rooted in his home locality that is necessary to make a differentiation on the degree of connection that he, as a teacher, has with

his school context. As Bednarz and Kemp (2011) assertively argue, being a local does not necessarily involve local expertise, neither locating two people or objects next to each other will involve a geographical connection (Bednarz & Lee, 2011). However, José's active participation in the production of local spaces as part of his rural childhood (Robson, Bell, and Klocker, 2007) and youth (Hammond, 2019) can be described as a state of 'teacher endemism', a measurement of intensity where a teachers' unique background is influenced by geographic location.

Figure 7.6 shows a similarly structured life cycle for all the surveyed teachers in the province. It describes 'teacher endemism' as the proximity of teachers' life cycles to the locality of the school where they were teaching at the moment of answering the survey. Over a third of teachers show a similar cycle to José's after considering parents' origin, teachers' birthplace, teachers' primary and secondary education, HEI placement and current residency. Amongst teachers in the province, the processes vary extensively, particularly concerning secondary education, where the out-migration process of rural dwellers typically starts. However, it is interesting to notice that a majority of teachers had a spatial connection with the places where they had been teaching at some point in their lives, which could have had multiple implications on their situated practices. As José previously described, his endemism brings understanding to the otherwise considered 'naughty' behaviour or endurance to environments that require 'being used to' their harshness.

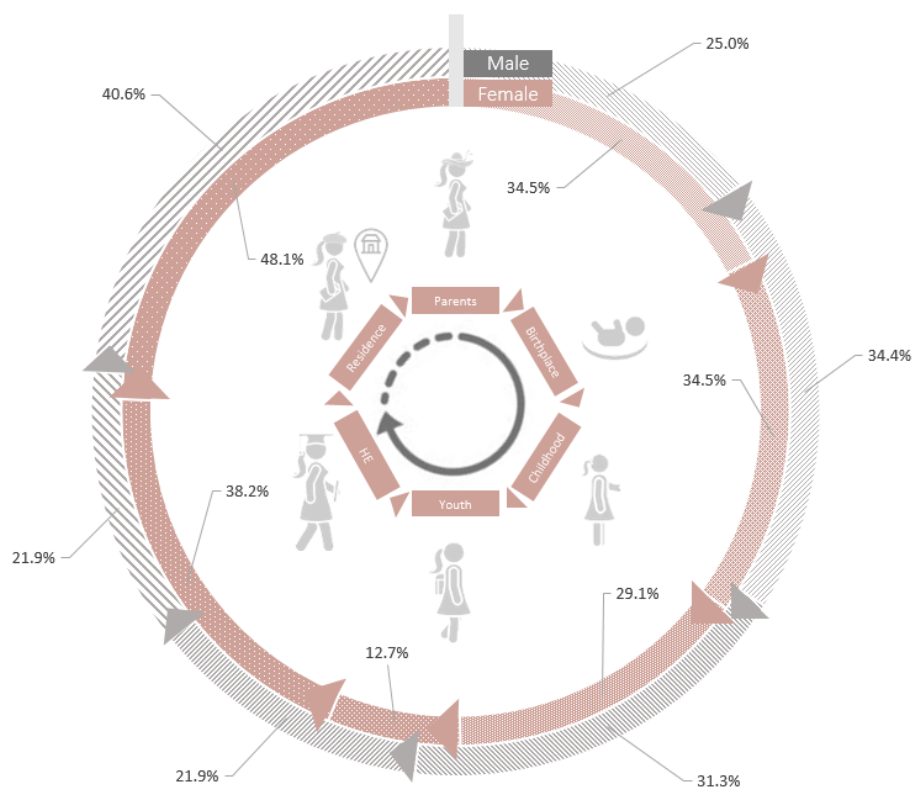


Figure 7.6. Rural teachers' lifetime trajectory in their school localities.

Source data: 2018 Rural Teachers' Survey. Percentage of male and female teachers of the Cachapoal province per life cycle.

José's metaphor about the 'double-edged sword' accounted for a professional knowledge dilemma. On the one hand, he recognised that understanding how people behaved in his hometown gave him a significant advantage as a newly qualified teacher. On the other hand, the process that involved accessing other valuable knowledges involved experiencing a moment of personal de-attachment from his home locality. It is important not to misunderstand this dilemma as an issue of a theory-practice gap. José never expressed it in that way. Moreover, by performing this act of 'revisiting the territory' he imprinted a spatial attribute to both his native and university knowledges. It is a differentiation of the spaces where those knowledges were produced. This spatial differentiation has enabled José to integrate dissimilar knowledges as both valid and functional professional knowledges, equally important to his teaching practice.

José's interplay between spatially informed knowledge and professional practice is based on a geography of movement that is significantly articulated along with the story of his return journey from university. He did his studies in the city of Chillan, five hours south of Doñihue. This is a significant experience that many surveyed teachers in the province shared with José (Figure 7.7) as they had had to leave their home region for at least five years to be able to access ITE at universities. As Table 7.2 shows, teachers from the region that went to undertake an ITE programme outside the region accounted for more than a third of the surveyed teachers in the province. They left, only to later come back to their home region.

	ITE in the region		ITE outside the region		Subtotal	
	Frequency	%	Frequency	%	Frequency	%
Teacher from the region	42	48.3	34	39.1	76	87.4
Teacher not from the region	1	1.1	10	11.5	11	12.6
Subtotal	43	49.4	44	50.6	87	100.0

Table 7.2. Teacher Initial Education mobility.

José explained his decision on 'leaving to study' was two-fold. On the one hand, it was related to his own expectations of accessing a quality ITE programme. Following the advice of his mother regarding this, all the options he mentioned in the interview were elsewhere but home. On the other hand, he understood that the lack of quality ITE programmes in his home region was an outcome of the 'centre-periphery' relationship between his region and the country's capital. In José's story, 'leaving' and 'studying' go together, a decision not necessarily informed by opportunity but by expulsion factors

that affect rural and urban youth alike (Rodríguez, 2019). Together, contextual factors, educational expectations and lack of access create a mindset that compels the youth in the province to leave.

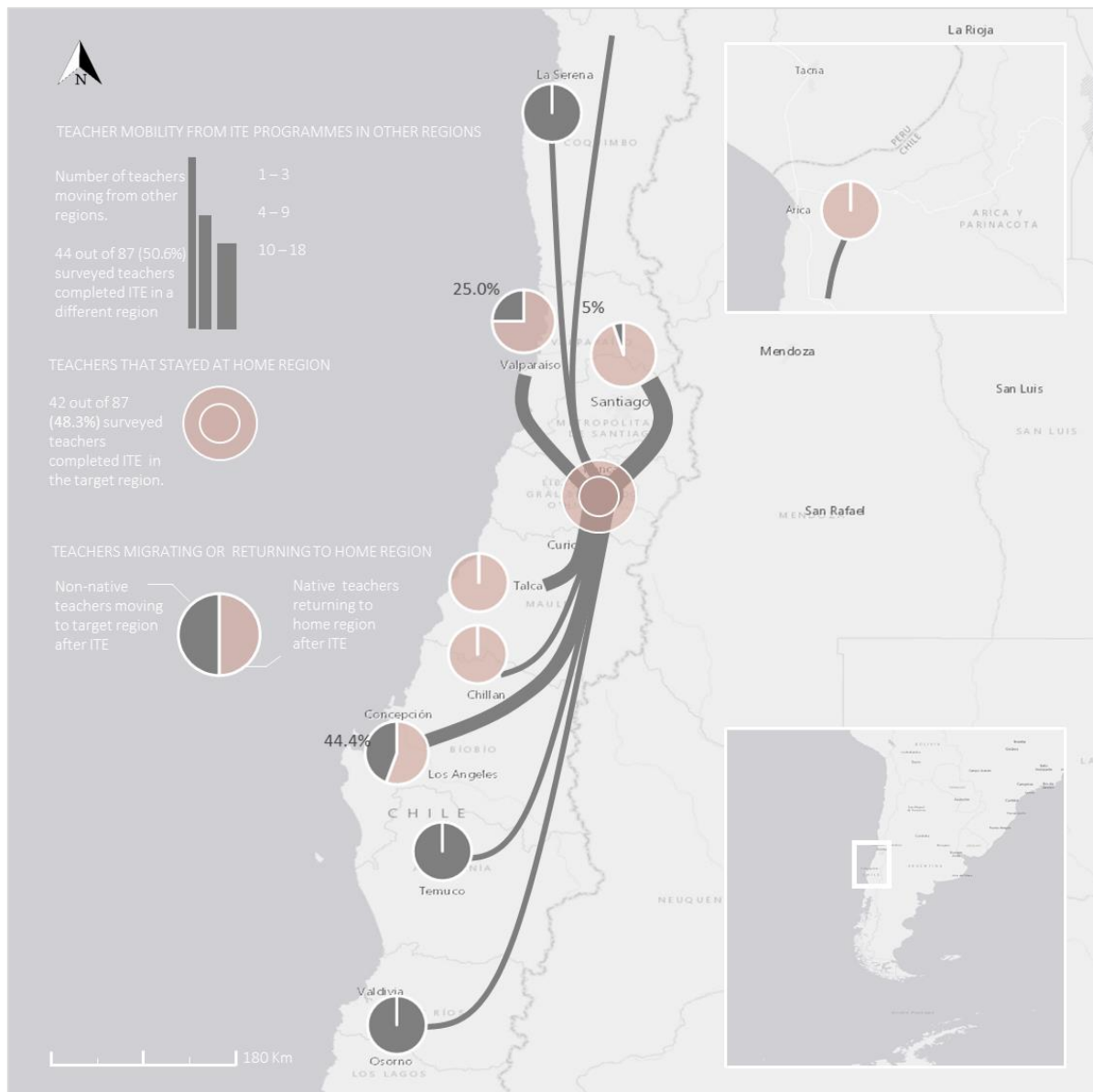


Figure 7.7. Teacher inter-regional mobility.
Source data: 2018 Rural Teachers' Survey. Teachers' ITE programme and school location relationship.

Until recently, this southern region next to the capital of the country offered no incentives (Maturana and Rojas, 2015) for universities to provide another form of teacher education rather than short vocational courses or b-learning training. As Figure 7.7 shows, almost half of the surveyed teachers stayed to study in the region under these circumstances. According to the United Nations Development Programme (PNUD, 2018), Chile has developed areas that are educational deserts, a

particular form of spatial inequality as there is no element of choice in a region without access to quality HEI.

7.4.2. Territorial literacy

It is important to recognise José's 'revisiting the territory' as a process of territorial literacy as well since he utilised it several times to read and understand his school context, particularly in the early period of his career. José deployed it in multiple spaces and school contexts, which suggests it has the attribute of being a transferable skill (Harte and Reitano, 2015), applicable to different locations.

In the development of a territorial literacy, it is unavoidable to recognise that being a native enabled José to access networks and information that provided him with a better understanding of what it means to teach and be a student in the area. However, this understanding is entangled with a situated notion of professional identity that empowers and holds accountable a teacher to a particular territory.

It empowers me with a deeper understanding because I used to live there [Doñihue] and because people know me, they know my personal history, and many of the people in the town know my family, and other acquaintances have met me as a child and know the shenanigans I did in my youth. All of these brings me closer to the people ... this involves a degree of self-awareness as well, and constant study to be knowledgeable. It involves a permanent state of learning that comes with the status of being a teacher. A teacher cannot –ever – stop studying. A teacher should always be a literate person, up-to-date with the national and local news ...

Jose Villagrán's interview

This type of literacy is not 'local' but 'territorial'. It is not confined to a particular location (Simon Catling and Tanner, 2020) but to José's expertise in understanding localities as places (Brooks & Morgan, 2006) and clustering groups of places in unique spatial entities that he denominated as territories. Even though José draws expertise and energy from his identity as 'native teacher', in his teaching practice he only worked in his hometown for the first couple of years of his career. He then moved to work in other schools. At the time of this study, he was teaching in a peri-urban school of the capital city of the region and in an urban secondary school (Liceo) in the town of Quinta de Tilcoco. These were different contexts that did not share the same type of rurality that José had experienced in his childhood.

I started working in 2012 as a substitute teacher for six months in Doñihue. I was able to return to my hometown. Then I went to the agricultural school San Vicente de Paul which is known as the school from Quimavida. This school is territorially – culturally and historically - linked to Doñihue. Its administration and politics is part of Coltauco. However, [students] come to study in this school from all over the valley.

José Villagrán's interview

The importance of José's territorial literacy is its focus on professional learning. In his professional trajectory, José moved from one local area where he had no social connections to another. In each area, he acquired new pieces of geographical information that were organised in different territories. This structuration was important in his territorial literacy development. José was able to accommodate more information as his process of professional growth moved forward, using this literacy device. José described three territories that were the result of his professional trajectory: a) Doñihue-Coltauco; b) San Vicente-Peumo; c) Caupolicán. Figure 7.8 illustrates the interplay between these three territories and the places within them.

José's understanding of what constitutes a territory stems from his early territoriality in the area near his hometown (red dotted area in Figure 7.8). José approaches this description using a cultural focus on people's spatial practices. He highlights that this type of understanding encapsulates the political and administrative boundaries of the two local municipalities in which he initiated his professional life as well as his childhood.

You have to understand that Coltauco and Doñihue are two different boroughs but they are one single territorial entity. Lo Miranda can be an exception amongst these two boroughs but it belongs to the municipality of Doñihue. So, overall, people take the same public bus, from the beginning in Doñihue in Punta de Cortes to the slope of Idahue. People from Coltauco move through Doñihue. Amongst those from Doñihue and Coltauco that have to travel to Rancagua to study, everybody knows about the territorial issues of the centre-periphery relationship with Rancagua. We all know each other. We have all lived through the same issues. People from Lo Miranda and Coltauco go to the local clinic in Doñihue. People from Coltauco vote in Doñihue. It is a bit messy but it is like that.

José Villagrán's interview

José's territory description distinguishes several layers of information (Pumain and Sain-Julien, 2014). One single territorial entity involves administrative boundaries, natural landmarks, transport systems, health systems, citizenship issues, social issues and political conflicts. José acknowledges that this might be difficult to understand as is 'a bit messy' but it is meaningful when it is articulated geographically. He explains in the interview that 'you can understand it from the territory, from the nodes that are located. The connections underlying the networks. Everything within a territory with its own locations and movements'.

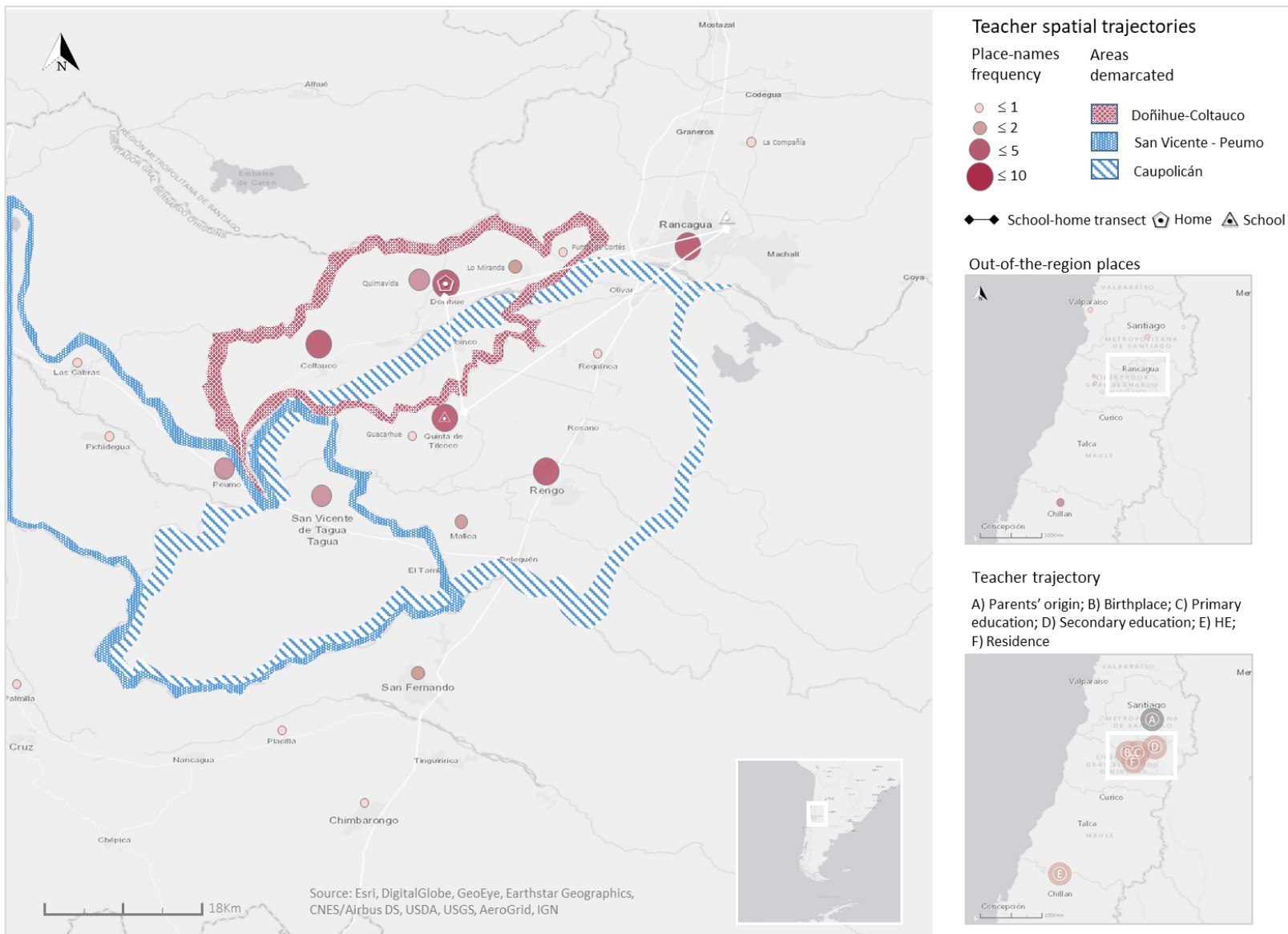


Figure 7.8. José's spatial trajectory and territoriality.

José's accounts on the context of his most recent position at the school in Quinta de Tilcoco (blue striped area in Figure 7.8) highlights his use of the notion of territory as a device to learn about new professional spaces. It works as a passive ability that José has been continually using to update local information. However, this ability was particularly 'activated' when he had to move to work in a new school in a place where his prior knowledge was lacking in detail or did not fit into his previous territorial structures.

I had a complete change of perspective about the way of life in the region and its territorial relationships when I started working in Quinta. When I travelled in my way to the south of the country, I used to pass Quinta from the motorway, and it seemed to me it was hidden away. I only knew about it because of the signs on the road and the buses. But, I did not know anything about that space, I did not know about its geography. I did not know that it was part of the great Rengo or the old department of Caupolicán. This was a small department in relation to others but Rengo had autonomy from Rancagua. So, people from Quinta de Tilcoco ran their errands in Rengo and Rancagua was only used for more critical issues. That relationship is maintained until today. So, the kids from Quinta de Tilcoco that do not study in their town travel to Rengo to study in the Liceo industrial, the Liceo Comercial [vocational schools], or the Liceo Bicentenario in Rengo [academically-oriented school]. They do it in the same fashion as I did, travelling from Doñihue to Rancagua to study as people attended the A6, Oscar Castro Liceo [academically oriented school] or Los Mochos [private school] ... This is the centre-periphery relationship that I learnt working in Quinta. That particular understanding was very helpful when teaching my subject, to work with the history, culture, traditions, mannerism and what people do locally. The good, the ugly and its aesthetics. All of it is linked with the territory.

José Villagrán's interview

José's relationship with an uncharted territory involves both a process of accommodation and appropriation of professional knowledge. José is a History and Geography teacher and his explanation using the old department of Caupolicán as a point of reference involves the use of his subject expertise to make sense of the historical structuration of the territory at hand and, in that way, make meaningful connections with his new school context. He later confirms this as part of his extra responsibilities at the school. 'Here I also teach Religion so I work with the values rather than the content of my subject. But I never stop being a history and geography teacher and everything is linked with it [the territory]. I also taught Philosophy, so this also a way of thinking'. Territorial literacy, as a form of professional learning, seems to be adaptive to different subject knowledges as well as acting as José's professional compass (Brooks, 2016) to navigate different professional knowledges.

The process of appropriation (Ball et al., 2012; Freire & Giroux, 1985) on the other hand, involves bringing the understanding from other territories into the new ones. José's analysis using the centre-periphery model is a good example of this when looking at the cities of Rancagua and Rengo being in an active relationship with their hinterland. It also involves adding his own views on the matter as Rancagua is seen as a city that is an extension of Santiago's centralism in the regions (Maturana and Rojas, 2015). Even though José has worked in Rancagua and, when he was young, travelled to the city to attend secondary education, he did not include this place in his depiction of the two neighbouring

territories. This is a distinction that plays a role as a border on José's professional territories. This is treated differently in the relationship between the Doñihue-Coltauco and Caupolicán territories as the borders overlap in José's accounts. Meanwhile the town of Coinco is part of the network of José's new school in Quinta de Tilcoco; the same place belongs to the territory José built during his childhood and early years as a teacher.

The third territory (blue dotted area in Figure 7.8) described by José adds information on the interplay between imagined geographies (Murray and Cortés-Morales, 2019a) and everyday geographies (Margaret Roberts, 2013, 2014) when he builds the construct of territory. All the professional territories that José structured are envisaged as consistent spaces that are underpinned by a common culture (Doñihue-Coltauco), historical background (Caupolicán) or networks of relations (San Vicente). He projected these territories based on his everyday experiences as a resident or educator travelling to different locations in these territories.

Last year I taught in Peumo. I have visited San Vicente before because I used to go on a trip to that city. It was near Coltauco, a place where I used to live. Peumo was known to me because you have to pass it to go to the beach. Peumo was not a foreign place as Quinta was. In Peumo I was able to meet its people. I knew a bit of its history beforehand, not like with Quinta. I arrived there without knowing a thing about the place. Let me give you an example: the centre-periphery relationship of San Vicente is mainly with the coastal area of Rapel, Las Cabras, Peumo, Pichidegua. You can also include some places of Quinta, like Guacarhue lake, Quinta de Tilcoco. There is a spatial relation. ... In 2017, I also worked in San Vicente as a substitute teacher. San Vicente has a connection with the entire province of Colchagua and also the Cachapoal province. It is in the centre. So, for example, the coach terminal has buses from Santiago, Rancagua, Coltauco, Quinta de Tilcoco, Rengo, San Fernando, Placilla or Palmilla. There are buses that can take you directly to San Vicente from Pichidegua, Peumo, Las Cabras, even Marchigüe. All these without San Vicente being capital of anything.

José Villagrán's interview

A common aspect of José's depictions of these territories is the networked relations that people and systems create to interconnect territories. These connections and centre-periphery relations indicate José's craving for providing meaning to local spaces.

However, in recognising the practice of 'revisiting the territory' as a form of literacy, there is also José's acknowledgement of the limits of his native understanding about his childhood territory, and the potential to learn beyond the local context.

V. What do you mean by revisiting your territory? Does it have a purpose to do that?

J. Sure it does, revisiting the territory and re-signifying your experiences. It is a process, a constant process. I experienced it when I worked in other neighbouring boroughs and I broadened my perspective of the territory. It happened to me when I was a substitute teacher for just a few hours a week at a new school.

...

We teachers receive the lowest pay grade and have to make ends meet but we are also consumers of culture. We have to accommodate some things and we even have to recycle what we have found. I have been able to work in different places in the province from Peumo to my current work in Quinta, Rancagua, San Vicente, Doñihue, Coltauco. I just need Coinco to complete that map.

José Villagrán's interview

José was aware of his limitations as he required a time of adaptation to acquire local knowledge, what he called 'recycling'. According to Jose, a teacher might be limited in their access to culture, such as to museums or other cultural activities. However, that does not mean that the places of teaching do not have culture (Geertz, 2000.). José 'accommodates' the pieces of information he can find about a territory, i.e., making the most of what the places of teaching can offer in the form of knowledge about the territory. This information can be used as examples or other meaningful approximations for the students.

Moreover, the acquisition of local knowledge (Geertz, 2000; Polanyi, 1983) in the early stages of José's career, has enabled him to expand his previous understandings of the places he teaches. This is incorporated as a form of professional knowledge that supports Jose's professional growth by making him more knowledgeable about the 'bigger map' of his region. José's movements from town to town have involved accessing different professional knowledge landscapes (Clandinin & Connelly, 1995) each time he arrived at a new school. However, José's practices operate on the amplified scale that derives from working in rural contexts. This process has crystallised as a locational skill that has empowered Jose in gaining access to new, geographically differentiated, professional spaces, and gradually position himself in a new place of work.

7.5. Discussion and conclusions

José's practice and professional identity has been strongly informed by a narrative of the territory in which several processes of his professional trajectory are situated in dialogue with his own personal life stories.

This case is significantly different from those examined in previous chapters. Catherine's case demonstrated her agentic influence in the territory she was teaching and, in Carlos' case, the territory created by the microcentro existed and it was recognised by the local authorities until recently. In José's case, teaching does not translate into a territory by means of narrative building and networks that are centralised in the school by the teacher. Although José's territorial narrative is dominant, it does not produce spatiality (Lefebvre, 1991) in the same fashion as Catherine's did; his political connections are discursive rather than agentic when it comes to making it part of the teaching practice. Moreover, José and his colleagues' use of Freirean pedagogy focuses on curricular

discussions rather than didactic issues of teaching practice. José's scaffolding practices certainly foster pupils' learning using contextual examples, but it is not clear to what extent those practices relate to a territory of his own making in which pupils can participate and develop meaningful notions of their everyday experiences.

However, this does not mean that José's case is lacking in spatiality. Instead of shaping a territory, what we observe in José's practices is his *territoriality* operating as a professional approach. This approximation was significant and multi-layered as he understood it as a form of contextualisation to read and comprehend his students' social reality. He brought nuance and depth to the representation of his students' experiences. For José, territoriality was not only locational knowledge (Catling & Tanner, 2020) but also a strategy (Escobar, 2015) for surviving an unjust world on one's own terms. His professional stories often take troubling features of social relations, such as discrimination on the basis of class and xenophobia, and invites his students to contemplate them in new contexts.

José proved to be a teacher that was knowledgeable about his own context with a distinct ability to acquire information about new school contexts that then were geographically systematised using the territory as a knowledge device (Martin, 2008b). The process of 'revisiting the territory' enabled José to encapsulate large amounts of geographical information concerning the students' context as well as to bypass the risk of parochialism (Faulconbridge, 2006; Maude, 2018; Morgan & Lambert, 2018) that local knowledge narratives tend to enforce.

The territory, understood as a professional device, enabled José to expand his understanding of both his school context and his own positionality as an educator, particularly during the early stages of his career. José was fortunate enough to initiate his career in his hometown, the same place where he was born and raised. This provided him with an insiders' view on what rural childhood and youth meant for his pupils. However, José was able to translate those knowledges in a rationalised conceptualisation that was relevant to performing his professional practices. The process José developed in his hometown enabled him to replicate a similar process of territorial understanding in other settings (Collins and Evans, 2002, 2007). By replicating the process, he transferred a skill and also the same emotional investment that was required for him to develop his home territoriality.

José understood the territory as a spatial entity with its own agency that was capable of influencing his professional practice. In order for José to fully engage with his pupils, he had to immerse in a dialogic process with the territory itself (Mansilla-Quiñones and Melin-Pehuen, 2019). This involved not only thinking *about* but thinking *with* the territory. In José's depictions of the territories, he

portrayed their character and the mood of the territories, which were treated as nonhuman entities (Hitchings, 2004) that would behave accordingly with their own identities.

José's case has been instrumental in distinguishing territory from territoriality, by understanding the former as a phenomenon that is a product of the agentic work of teachers, and the latter as an approach of teachers' professional practice. In this distinction, however, José's work is also oriented towards the production of a space. The problem resides in that he has not produced a territory (yet).

José's case, however, suggests a different understanding of territory as a political project – the fundamental and initial phase of what might become a territory. In this case, the territory is an imagined geography that is produced in a process of reterritorialization, i.e. an attempt to reclaim a space that is perceived to have been lost at some point in the past but that could still exist in the future. However, according to Deleuze and Guattari (1996), this process is not that important in the project as was the agentic process of creating a new territoriality – the project that will be.

Roberto Vasquez, José's colleague in Quinta de Tilcoco, acknowledges that in their school they are losing their students to drugs and violence. Thus, the space to be reclaimed is the school community itself (Stephen Ball et al., 2012; Haesbaert, 2013b). Its relations of solidarity and belonging, in José and Roberto's understanding, have been fragmented by a different neoliberal territoriality. For José, contesting the territoriality of neoliberalism is entangled with his own struggles for social justice in rural contexts. José's family history of left-wing political activism and persecution, the recognition of the issues that come with a rural and working-class childhood, and his own activism in the teachers' union are multiple layers that coalesce into his personal commitment with an alternative project of territory.

José has depicted three territories in which he has been involved throughout his professional career. These territories refer to the envisaged and imagined dimension of José's territoriality in its closest relation with belonging and place. In fact, this notion of territoriality is the closest one to place. You cannot have territory without having a sense of place first, which can later transition or be incorporated as a cluster of places in one particular territory. However, they should be differentiated because they are not produced as a territory in the sense of a transformative practice. According to Appleby and Pilkington (2014), in the development of critical professional practice, teachers can appropriate something narratively but they ultimately require action to enact possession. This property of active appropriation is fundamental in José's professional practice as he embodies a political notion of Freirean pedagogy.

The parallels established by Jose, between his context and the application of a pedagogy of the oppressed echoes Freire's arguments on cultural transformation throughout educational projects across society. In writing about cultural action, Freire draws from Guevara's ethics of dialogue with the people: a type of practice that is performed "patiently and unceasingly", in which 'communion with the people is accessible only to those with a utopian vision..., [in the sense] of the fundamental characteristics of cultural action for freedom. Only praxis in the context of communion makes "conscientization" a viable project' (Freire & Giroux, 1985, p. 80). In Jose's rationalisation of his teacher identity, this notion of consciousness was translated by Freire (2017) into the field of education by highlighting the importance of the educators' praxis. Teaching is conceived as political practice; thus, José embodies a notion of committed professional identity that, by repetition or exhaustion, can make viable the Freirean project of pedagogy by means of a process of reterritorialization.

8. Chapter 8 Discussion. Conceptualising territoriality in education

8.1. Introduction

This chapter presents a synthesis of the analysis to provide a conceptualisation of territoriality in education. In previous chapters, I have argued that data on rural teachers in Cachapoal province suggests that classroom teaching is a description that does not fully describe the extent of the interactions and scale of the work performed by teachers in rural contexts (Chapter 4). By so doing, I have approached these contextual issues geographically, with a particular focus on teachers' territoriality as the nexus between their situated and agentic practices in relation to rural teachers' professional culture (Chapter 5), teacher-community relationships (Chapter 6) and teachers' professional identity (Chapter 7). Territoriality, in this view, is a spatial phenomenon that enables us to understand professional practice within its context.

The data and its analysis have enabled us to develop an understanding of the processes involved in the production of territories and how, in particular, teachers' professional practices in the Cachapoal province of Chile can be interpreted in this way as they develop school-based territories and deploy a territoriality based on their profession. Therefore, this discussion is threefold as I return to the theoretical implications of the processes of territorialisation and the constructs of territory and territoriality. The sections for the main part of the chapter follow this order.

The previous chapters have been organised thematically and have already incorporated links with current scholarly discussions in the field to clarify and situate teachers' professional practices in the complex scenario of a rural school system and multiple professional cultures. Although the organisation of the themes and subthemes within the analysis chapters are theoretical and data-driven, the extent of these links has been bound to the case with a brief in-chapter discussion that elaborates on its specific theoretical implications. Thus, this discussion chapter builds on those case-based approximations to enable a deeper understanding of the individual cases and extends the understanding on teachers' territorialities.

8.2. Territorialisation processes

At this point let us go back to our working definition on territory. In chapter 2 it has been described as 'the space articulated by an agent'. In contrast to the state-centric territorialisation literature (Delaney, 2005; Paasi et al., 2018; Sack, 1983), the case studies explored in Chapters 5 (Carlos), 6 (Catherine) and 7 (José) have indicated that the production (Lefebvre, 1991) of territories (Santos, 1994; Santos, 2017) are processes that are not the monopoly of a single state entity but can be

extended to the actions of multiple agents – in this case, teachers. The experience of the case teachers has shown that they have participated in the construction and representation (Lefebvre, 1991) of school-based territories that operate as bounded spaces where they exercise multiple degrees of agency. This understanding derives from the analysis of the case teachers and it is influenced by the work of the Brazilian geographers Haesbaert (2013b) and Santos (1994). I have taken from them the notion of territorialisation as a process of contested spatial configuration that has further implications in education and teachers' processes of professional development. In this section, I will explore these territorialisation processes to later concentrate in more detail on the resulting notions of territory in the following section.

The cases in this study have suggested that the processes of territorialisation are often in dialogue with or even contested by the territorial projects of multiple agents. This is a key insight that we have obtained from the cases of in-service rural teachers of the Cachapoal province in Chile, but it is relevant in other contexts as well, particularly for teachers that have to endeavour to establish a situated presence in their communities and take this role as part of their professional practices (Kidman and Chang, 2020; Mitchell, 2020; Pulgarin, 2011; Solem et al., 2013).

The problem with teachers' participation in territorialisation practices is that their influence on them has its own limits. As much as I would like to report that teachers' agentic practices (Priestley et al., 2015) constitute thriving and active territories, the experience of Carlos, Catherine and José indicate that these processes are not linear or they do not necessarily have a territorial outcome (Chapter 4 and Chapter 6 - José). For the cases that have shown an operational territory (Chapter 6 – Catherine), the pastoral work required from the teacher to build and sustain it is demanding, to such a degree that sometimes the process can even be reverted to a point where the territory cease to exist (Carlos – Chapter 5).

These particular forms of territorialisation position teachers' territories as contested and evolving spaces in a continuum that Haesbaert (2013b) and Santos (1994) have described as deterritorialisation/reterritorialisation movements. This notion of a continuum between the two processes is outlined by Deleuze and Guattari (1996, p. 96). As illustrated in Figure 8.1, to understand the deterritorialisation and reterritorialisation movements is to consider them as two entangled and constructive forces (Herner, 2009) that need each other to be completed.

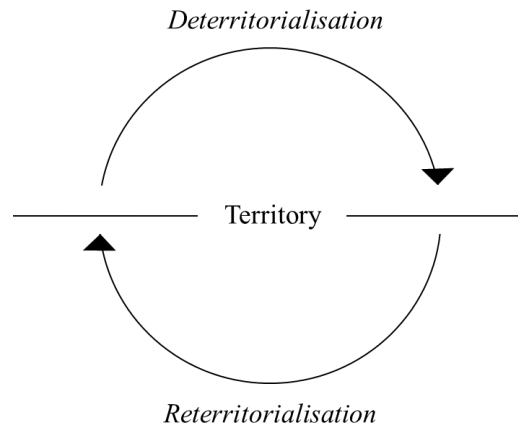


Figure 8.1. Territorialisation processes

In this understanding, territories are not static or monolithic spatial entities but they can change in time through territorialisation processes. These are powerful forces that were part of the case teachers' everyday experiences. They are part of the teachers' drivers to push for constructive change as José demonstrated in Chapter 7, and even their fears of succumbing to the closure of a rural school, as Carlos described (Chapter 5) and Catherine's predecessor nearly avoided (Chapter 6). Territories have their own historicity and temporality (Gándara, 2017) as they depend on the influence that different agents can generate and, more importantly, sustain on them.

Furthermore, in the processes of territorialisation, the notion of territory should not be overlooked. The three case teachers have indicated that territorialisation involves that the territory is enacted as a target for a territorial project or, as José's case showed, in particular, as an ontological reality (Brooks, 2016; Mansilla-Quiñones & Melin-Pehuen, 2019) that was inhabited and configured by the territorialisation forces around it. The notion of territory, then, is polysemic, but across the cases, it is established as a central image (Figure 8.1) to be appropriated or transformed.

Carlos, Catherine and José were unrelated teachers in the province but, as illustrated in Figure 8.2, the interplay of the specific themes that articulate their professional practices enable a comprehensive understanding of what it takes for a teacher to build a territory.

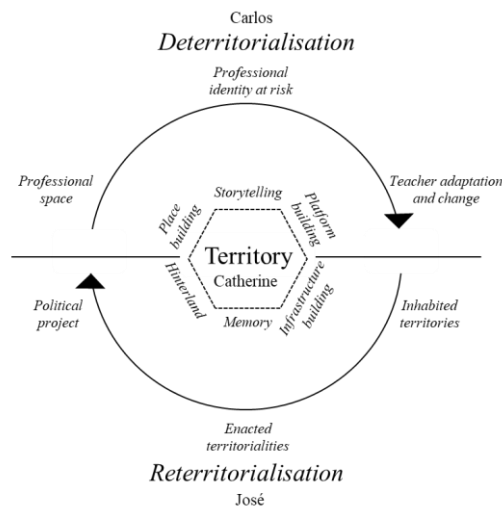


Figure 8.2. Case teachers' territorialisation processes.

As illustrated in Figure 8.2, the processes of territorialisation, deterritorialisation and reterritorialisation integrate the case teachers' themes. José's Freirean project of education indicates the attempts he has taken to reterritorialise his workplaces, i.e. to claim back the ground that, in his understanding, has been lost by the effect of inequality and neoliberalism on rural schools. Carlos' case shows a different point of the loop in Figure 8.2, as the project of rural education that he built in collaboration with the microcentro network had been already deterritorialised. It has been contested by a globalised rurality that in Carlos' case, in particular, has been shown to have profound implications for rural education, as it progresses in the form of rural school closures, fragmentation of the network of rural teachers and shifts in the professional culture of rural teachers. In contrast, Catherine's practices provide a clearer picture of the dynamics at play in a balanced territorialisation process as her case shows what happens when the control of the agenda for a specific territory is managed by a teacher.

It is important to remind ourselves that the territorialisation movements (Haesbaert, 2013b) are overlapping processes that the experience of the case teachers have shown they occur simultaneously. The territorialisation processes are not mutually exclusive. That José is pushing for a process of reterritorialisation does not mean that he is not experiencing deterritorialisation processes as well. The same criteria apply in Catherine and Carlos' cases.

In the following subsections, I will further explore how these processes are differentiated from each other and how they help us build a common understanding of what territorialisation in education involves.

8.2.1. Territorialisation

If we understand territories as the space articulated by an agent, it is important to consider that the agency deployed is something achieved. It can change and vary in different degrees, which makes it relevant to consider as a process rather than a static condition. Deterritorialisation, territorialisation and re-territorialisation are generally presented as three concomitant processes. However, my findings elaborate on the differentiation of the territory and its territorialisation from the continuum that is represented in the cycle of de/re territorialisation (Figure 8.1) (Deleuze and Guattari, 1996; Haesbaert, 2013b). Here, I am going to understand territorialisation as the process focused on the sustainability of a territory: the strategies and techniques deployed for the territory to be sustained by an agent. Territorialisation unfolds, then, as a condition of direct possession or connection with a territory.

In Chapter 5, I argued that the case considers the interplay between Catherine's teaching practice and the challenges of taking on a new position of leadership at her rural school as headteacher. Catherine's case is – as she described it – about 'putting the house in order' and, with it, shaping a territory that will become the image that her students and partners will have of the locality. This is the territorialisation process at play. The 'house', for Catherine, is the school embedded in its locality as this theme builds up into a persistent professional practice of teacher-community relationships that she actively cultivated by building a stakeholder support network.

The process of territorialisation involves a notion of sustained change that is controlled by an agent. Catherine's case is illustrated in Figure 8.2 delineated at the centre because, on the one hand, it conveys the notion of the territory as a rural idyll (Woods, 2010). On the other hand, Catherine's case exemplifies the practices that delimit and sustain a territory. Let me expand on these two conditions.

The image of Chacayes as a rural space is the outcome of multiple historical processes (Woods, 2011). The characteristics of Chacayes as a unique locality have been examined in Chapter 5, portrayed as the remainder of a cattle culture that has been preserved in the mountains. In the rest of the province, these practices are considered folklore in the context of a globalised Chilean society based on commodity exports (Oyarzún, 2020a). As the former headteacher of the school (Claudio) argues in Chapter 5, Chacayes is the perfect example of traditional Chilean rurality: 'it is the historical image that everybody has of a rural space' in Chile. Moreover, this attribute of uniqueness is reinforced by the location of the school deep in the mountains as a geographical outlier of the school system of the province, one that the local authority of the district defines as their most isolated school.

However, the case challenges the definition of isolation for this rural school since the practices of its teachers have made the physical distance irrelevant in the matters of learning and education. It is a case that exemplifies the plasticity of the notion of space (Forer, 1978; Massey, 2008). Its uniqueness rests not in its remoteness but the close relationship between the teachers and the locality of the school. Its inhabitants are sufficiently active to generate a clear notion of community with its own leadership, ritualised practices, members, and delimitations in a place into which the non-local teachers have been able to insert themselves, establishing productive relations and acquiring local knowledge. This state school is the only one in the locality, which makes it 'the' school of the locality. A title that its teachers take seriously.

However, Catherine's location in an active community with a rich and cultural rural sociability does not determine the extent of the relationship between school and community (Catling & Tanner, 2020; Willy et al., 2019). Catherine's case demonstrated a vast assemblage of practices and narratives fitted together by the teachers at the school. This is the importance of her professional practices since social relations do not come naturally to people (Hitchings, 2004) and, in Catherine's case, some of the relations established through her were between unrelated people or even between parties in conflict.

Catherine's practices (Figure 8.2) of place-building (Riley et al., 2018) and storytelling (Pink, 2013) configured 'umbrella narratives' for the teachers at the school, which facilitated joint projects and activities with partners. In the same vein, these narratives involved the exercise of local politics (Stephen Ball et al., 2012) by the teachers at the school, as a platform (Paulo Freire and Giroux, 1985) that has enabled them to build support from the community, partners and officials. These activities and projects have extended the area of influence (Mojtaba et al., 2017) of the school and contributed to sustaining the culture and collective memory of the locality.

This relationship between an agent's capacity to sustain a territory and the territorialisation of a space is a notion that is significantly different to the one elaborated by Santos (1994). This finding contributes to incorporate a dimension that is informed by solidaristic relations rather than the attempt to cease a territory. The act of sustaining the territory is, likewise, a novel idea that has not been fully grasp in Deleuze and Guattari (1996) understanding of territory. It involves to theoretically consider the territory, as I propose, as a material (Catling & Martin, 2011) or imagined geography (Hammond, 2019; Murray and Cortés-Morales, 2019b) that constitutes a particular reality for the agentic teacher. The territory, then, reunites a network of relations (Santos, 1994) through agentic practices (Priestley et al., 2015) that enact politics and authority (Biesta, 2020) in relation to a multiplicity of constructs of identity and locality (Lovell, 1998). All these connections unfold the multi-

layered expertise (Childs et al., 2014) required by an agent to negotiate and manage, simultaneously (Brooks, 2016), a territory.

8.2.2. Deterritorialisation

Carlos' case describes the transformations that rural schools have endured in the context of a new globalised rurality and how this has impacted on rural teachers' professional culture in a process that he has observed as a form of deprofessionalisation. There are some noticeable links between deprofessionalisation (Alexandre, 2016; Giroux, 1988; Kemmis, 2014) and deterritorialisation (Haesbaert, 2013b) that I will further explore in this subsection as teachers' practices have also been affected on a spatial level when contested rationalities of education are at play.

The professional culture in which Carlos participated was bound to the territory of the microcentro. This entity operated as a teacher association (Ávalos, 2004) that congregated rural teachers of a specific geographical area and empowered them as representatives of their schools and localities. By removing the microcentro, Carlos indicated that teachers lost their ability to conduct autonomous activities and operate a space of professional growth (Morgan, 2009) with the support of their peers. The networked space that constituted the microcentro was deterritorialised (Haesbaert, 2013b) as the connection of different rural localities lost its central node.

Deterritorialisation in connection with deprofessionalisation is, therefore, a centrifugal process of spatial reconfiguration that tends towards fragmentation and disconnection. It is a similar process to what Pumain and Sain-Julien (2014) have described in the case of rural schools and villages in France as 'spatial retraction', a continuous retreat of overarching structures or connections between spatial entities that culminates in the specialisation or isolation of practices and systems.

However, the deterritorialisation of a professional territory such as the microcentro suggests multiple layers that are not only explained by its official closure. There are underlying factors that suggest the termination of the microcentro was an extended process rather than a hierarchical decision made by the local education authorities in the municipality. Haesbaert (2013b, p. 9) cautions against considering deterritorialisation only in the generic sense of 'destruction or abandonment of a territory but also in the sense of territorial insecurity of the subordinated groups. In general, what the hegemonic groups consider as deterritorialization actually represents the experience of a multiterritoriality'. Carlos considered that the generational shift amongst rural teachers was responsible for the downfall of the microcentro. However, it is useful to see this generational difference as an indication of rural teachers' multi-territoriality (Haesbaert, 2013b), where different groups compete for the same spaces, targets and resources for the rural schools.

The microcentro failed to adapt both its organisational structures and its narratives to integrate other groups of teachers – often novel teachers – that were not on a full-time contract. The former involved a structural problem as young teachers on hourly contracts were less likely to allocate time for day-long meetings that constituted the core of sociability for the microcentro teachers. The latter, suggests the limitations of the microcentro teachers to integrate their narratives of rurality with the transformations of a more dynamic rurality (Ramírez-Miranda, 2014). This, ultimately, coalesced into differentiated professional identities. These identities produced ‘different ontological narratives’ (Brooks, 2016, p. 128) that created two irreconcilable realities of rurality amongst the different generations of teachers.

Deterritorialisation, as multi-territoriality, grows into a matter of governmentality (Foucault, 2009) that has deeply influenced Carlos’ professional culture. The microcentro created a territory that granted some degree of professional autonomy for rural educators. However, Carlos’ role as a teacher in the school created links between pupils, families and local services of two different municipalities (Codegua and Graneros); thus, it also situated him on the border of two contested rationalities of rural government. On the one hand was a voucher-based school system that the municipality of Graneros prioritised clustering students in urban areas and, on the other hand, a focus on small-scale and less profitable geographically-based schools targeting the localities of Codegua, Carlos’ municipality. These rationalities pressed for different spatial configurations that Carlos had to negotiate with as part of his professional practice.

The existence of a multi-territoriality affected how the territory of the microcentro was understood by other agents in the school system (Woods, 2011). As shown in Chapter 4, rural schools were – in some circumstances – political assets for elected officials to capitalise on the rural idyll (Woods, 2010). Carlos suggested that rural teachers learnt to negotiate with these local actors in their everyday practice (Chapter 5) as part of the political expertise required on a local level to protect the local children from potential closure of the rural school. The microcentro was instrumental in playing this political game as its institutional support enabled Carlos to scale-up his individual activities and outlive several administrations and educational policies in the process.

The link between deterritorialisation (Haesbaert, 2013b), governmentality (Foucault, 2009) and professional culture (Brooks, 2016) contributes to the demystification of the ‘local trap’ that some of the literature on situated learning (Lave and Wenger, 1991; McNamara et al., 2014) has established, as if belonging to a specific location was associated with specific behaviours. On the contrary, not because a particular teaching practice occurs somewhere will it have the expected outcomes for that area. In Carlos’ case, this was related to the ‘rural idyll’ on a local scale, where the authorities assumed

that teachers performed their practices naturally and effortlessly because the rural pupils were 'better behaved', instead of taking into consideration the process of specialisation in rural contexts that the microcentro created for its teachers. Its removal demonstrated how little was needed to fragment the teachers' professional cultures and how interwoven practices are with sites, not just set in them (Kemmis, 2014).

8.2.3. Reterritorialisation

Reterritorialisation (Haesbaert, 2013b; Lucas Melgaço and Prouse, 2017) is the process that builds on territories as if they were projects to be implemented or enacted by agents. There are different levels of agency that teachers have demonstrated in the province (Chapter 4) but not all of them are conducive to creating a territory. José's (Chapter 7) case shows that, despite his professional identity as an activist teacher, his Freirean project of education has not transpired into an operational territory recognised by third parties and where colleagues share mutual goals and resources in a similar fashion, as what was observed in Catherine's case (Chapter 6). However, José's practice is significant as it illustrates the meaning of a reterritorialisation process as the making of a territory. José has shown that the notion of project delineates a form of territory that is both inhabited and enacted.

There is no indication in the cases studied that building a territory involves using the same strategies, particularly the ones outlined in Catherine's case (Chapter 6). However, the features of the territories represented among the case teachers were similar to each other, with some important distinctions between Catherine (Chapter 6) and José. As the former provides an image of an organised territory and the latter, José, is actively carrying an agenda (Paulo Freire and Giroux, 1985) that involves a pre-established notion of territory (Sack, 1983). Reterritorialisation, then, involves assigning purpose to a space that then becomes a bounded spatial entity either by appropriation or creation. As the state has become an agent of accountability in José's understanding, he is actively seeking its deterritorialisation, to later replace it with a new territory informed by social justice and egalitarianism.

The notion of a project is one of the key themes in José's case as he outlines a projected territory. It establishes a differentiation between Carlos (Chapter 5) and José's (Chapter 7) cases and differentiates between deterritorialisation and reterritorialisation. The former highlights the closure of a project of rural education that culminated with the end of Carlos rural microcentro and the latter involves José's potential generation of a project of rural education.

José's case contributes by clarifying that the reterritorialisation process should not be misunderstood as the return to an ancient territoriality, as Delaney (2005) argues, but that the very same

deterritorialised spaces inform the new territoriality that is created. This is distinctive to the emphasis that Carlos and José place on the processes of professional learning they experienced to become a rural teacher. They both experienced distressing personal events that marked the initiation of their careers as rural teachers and they both have rationalised these aspects in their professional stories as part of the struggles that rural dwellers experience in Chile (Martínez, 2017). As Guattari and Rolnik (2007) have argued, the new territoriality is informed by the old territory. However, it is meaningful to acknowledge that in the case of José, he devised a mechanism of professional learning – described in chapter 6 as ‘territorial literacy’– that guides his movements and trajectory between diverse territories and workplaces. Therefore, it is expected that José might have been better equipped than Carlos at the beginning of his professional trajectory to tackle the inherent issues of spatial inequality (Zimbalist, 2017) that come with teaching in rural areas in Chile (Oyarzún, 2020a).

In this section, we have explored how teachers’ practices produce territories case by case. The experience of the case teachers has shown us that this does not follow a linear process (Figure 8.2) but it can be conducted in a series of territorialisation processes that might result in the creation, fragmentation or conservation of a particular territory. The understanding of Santos (1994) and Haesbaert (2013b) on de/reterritorialisation processes was deeply influential in this categorisation of the data, although it was further expanded, incorporating a third process of ‘territorialisation’ that describes how territories are sustained once they are built. We have seen that these different processes are underpinned by a constructed notion of territory. Thus, in the following section, the data on the three case teachers will converge in the analysis of this notion.

8.3. Territory

At this point, let us return to our definition of territory as a space articulated by an agent. The previous section considered how territory has been produced as a space. Here, I wish to suggest that the professional work that case teachers conduct has conceivable commonalities that coalesce into specific features regarding the notion of territory: (1) case teachers act as agents that enact politics and authority, (2) teachers’ territory is brought together in the sense of a networked space, (3) teachers can engage with the transformation of identity into belonging and locality. These features are not mutually exclusive for all the case teachers and do not manifest themselves in their full form all the time but the analysis of the case teachers enables us to approach the territory as a built construct based on teachers’ professional practices.

8.3.1. Politics and authority

One of the key themes from the literature on territory is the importance of domain and ownership of the territory. This comes from conventional studies on territories, mainly those based on Sack's (1983) work which involves a focus on politics that concentrates on issues of power (Delaney, 2005), often delimiting borders (Paasi et al., 2018) and devices of control (Storey, 2012). I have criticised this scholarship previously (Chapter 1) because of its state-centric approach to politics. However, their notions, particularly those about territorial strategies, should not be dismissed so quickly as the data from the case teachers suggests otherwise. Carlos' case (Chapter 5) is a good example of this as the sustainability of his school was entangled with the rural politics of his municipality. He had productive relations with local governments to provide resources to the school and enable more learning opportunities for his pupils.

The professional practices of Carlos show that the notion of politics at school is wider than the relationship with the local administration and elected officials. As Ball (2012, p. 140) argues, 'what we take to be policies are power relations, practices and subjectivities which articulate forms of learning and forms of behaviour; that is, specific positions of agency and identity in relation to particular forms of knowledge and practice'. Here, it is relevant to make a distinction about Carlos' power relations in his locality as what his practice demonstrated was not power but authority. Authority is an attribution that focusses on the right to make decisions rather than on what individuals are able to do, as the literature on teacher empowerment (Ball, 2012; Danaher et al., 2014a), agency (Gleadle, Cornelius, and Pezet, 2008b; Klocker, 2007; Robson et al., 2007), capabilities (David Lambert, 2009; Nussbaum, 2013) and capacity building (Solem et al., 2013; UNDP, 2009) has highlighted.

The notion of authority builds on Weber's (1947) understanding of political legitimacy. Peter (2017) argues that power is an entity or individual's ability to control or direct others, while authority is influence that is predicated on perceived legitimacy. Carlos' figure carried certain weight amongst rural teachers and legitimacy in the municipality. He had a trajectory of more than four decades in most rural schools of the commune, including positions as head teacher, coordinator of the local microcentro and a role as a captain in the commune's volunteer fire brigade. The source of his legitimacy comes from his knowledge of the rural landscape of the district. Thus, in Carlos' case, the differentiation that Peter establishes is not only about doing but about knowing. As Biesta (2020, p. 115) argues:

Authority is fundamentally relational (see Bingham 2008). It is not something one person can possess and can exercise over another person but has to be understood as something that 'circulates' in relationships and thus requires 'support' from all parties in the relationship. It is not, for example, that teachers automatically have authority over their students, but they can, in the development of their mutual relationships, be given authority by their students ... The transformation of (relationships of)

power into (relationships of) authority is one of the key dynamics of all professional relationships if they seek to operate in a democratic rather than in an authoritarian way.

Unlike power, authority is recognised by other agents. In the interviews with the local administrators, they acknowledged Carlos' work as derived from years of teacher experience and rural teacher expertise. That knowledge turned into expertise enabled Carlos to move across the rural spaces of the borough and bring the microcentro's notion of rurality and rural education into different schools and localities, contesting the influence of other educational agents. Carlos' case, then, indicates that expertise (Collins and Evans, 2007) is entangled with this notion of authority (Biesta, 2020), which has further implications for our understanding of teachers professional practice.

Crucially, Carlos' authority indicates the extent of teachers' professional work as a series of educational processes that combine content, purpose and relationships which are comprehended in the language of education rather than of learning (Biesta, 2020). Learning, here, is understood as a narrative that has been severed from its educational meaning in current educational cultures. The notion of authority in education builds on Biesta's (2020) argument on the *democratic professional*, which develops a notion that resists technicist conceptions of professionalism but is cornered by the process of *learnification* (Biesta, 2018). This tendency sees learning as a naturalised phenomenon that narrows our understanding of the multiple roles that teachers enact. Biesta's critique on the use of learning as a discourse ultimately recognises 'that it is obscuring the political work that is done [by teachers]' (Biesta, 2018, p. 247).

Biesta's notion of teachers' political work transpires into the notion of territory, the professional domain of teachers that, as Mitchell (2020) demonstrated, can be contested by multiple non-educational narratives as well as being the ground for competing discourses that stress examinable content in school curricula (Seow, 2016). The notion of territory then becomes the professional space for teachers to contest the competing narratives that neglect education. The political work that serves as a foundation for teachers' territories rests on their authority to influence and legitimise (rather than enforce) their own agendas through their professional practice.

8.3.2. Networked space

Catherine's case (Chapter 5) illustrates how well-connected teachers can be in the context of their work and further expands our notion of territory as a networked space (Melgaço & Prouse, 2017; M. Santos, 1994), away from previous understandings that delineate it as areas (Paasi et al., 2018) that are to be controlled instead of being connected. First, there is a layer where Catherine acted as gatekeeper for the organisations that were operating in partnership with the school. However, and second, the links that she sustained indicate a network of places as well. Places, understood as spaces

of meaning in which people form attachments (Tuan, 2011), such as the shrine for the 'Apestaditos' or the old colonial estate in the locality, are part of the culture of Chacayes. They retain their social meaning as part of a deeper process of socialisation and belonging (Arhem, 1998). Catherine and her two colleagues at the school could not fabricate those cultural artefacts but they made themselves participants in that culture (Brooks, 2016). However, in the vision that teachers declared they had for the school, they incorporated these places as part of a school-based narrative that enabled them to provide meaning to some of their activities and pedagogy. The murals and activities in the school depicted these stories of the locality regarding its natural and social world. In their interviews, Catherine's network of out-of-school partners declared feeling drawn to these stories as drivers for their participation.

School-community links can be built, nurtured and sustained. This are multiple processes that have proven to be challenging for Catherine and difficult to sustain in the case of Carlos. Unlike other social categories of space, such as place (Augé, 1995; Massey, 1991, 2008; Tuan, 1990) or landscape (Nogué, 2007; Nogué & Wilbrand, 2010), territories, in particular, are managed. Following Tuan's (1990) argument on topophilia, Pulgarin (2011) argues that place and landscape are spaces that act as a powerhouse of meaning. The cases of Catherine (Chapter 6) and José (Chapter 7), however, indicate that territories are more flexible and encompassing categories of space that operate on a different geographical scale, clustering networks and areas (Mojtaba et al., 2017) and – in this process – fuelling its own dynamism.

The networked practice outlined by the case teachers is a main feature in the process of building a territory. It also operates at different scales. As previously examined (Chapter 4), the interaction of teachers with other organisations or collaborators outside the school accounted for more than half of the surveyed teachers in Cachapoal province. This practice acts as a crosscutting layer in the province where Catherine and José have been conscious of their role sustaining teacher-community relationships (Scoffham, 2010; Willy et al., 2019). School-based networks (Ainscow, 2015; Hargreaves and Ainscow, 2015) are a fragile fabric; they require to be constantly nurtured to keep them together. By defining an area of influence to those networks, case teachers in this study utilise space as an anchor for the multiplicity of relations that intersect in the school.

Territories have a plasticity (Forer, 1978) as spatial constructs which means that the narrative and the network that defines one territory will not necessarily apply to another and, furthermore, the plurality of projects that teachers develop might generate overlapping territories. This plasticity is a key feature describing a territory because it responds to the in-school experiences of teachers as 'individuals [that] can operate in more than one culture simultaneously' (Brooks, 2016, p. 31). The power geometry

(Massey, 1999) in our case-teachers can exemplify this as the areas that José described as ‘his’ territories encapsulated his multiple professional knowledge landscapes (D. J. Clandinin and Connelly, 1995) and the networks that Catherine’s practice centralised were based on simultaneous relations with pupils, professionals, authorities and partners, each of them having their own agenda (Pumain and Sain-Julien, 2014). These features have been neglected in the literature about territory, but I would argue that it is a defining characteristic since it involves issues of belonging to and ownership of a particular space that is managed by the agent who is interested in the existence of the territory.

8.3.3. Identity, locality and belonging

Identity (Lovell, 1998) and belonging (Riley et al., 2018) are conceptualisations that indicate case teachers’ efforts to build and tailor local narratives for their pupils. Catherine and José’s practices were particularly productive in generating a spatialised sense of belonging (Bhabha, 2012; Brock, 2016) and suggest that territories may be formed even when space is not physically occupied (Duarte, 2017). Catherine’s case, in particular, exhibited the expertise of a teacher and her peers in generating the pupils’ sense of identity associated with their locality, whereas José’s case shows how a teacher can envisage multiple horizons for his professional trajectory in the form of territories. They both demonstrate alternative forms of how a territory can either appeal to the materiality of everyday geographies (Catling & Martin, 2011) or construct imagined geographies (Hammond, 2019; Murray and Cortés-Morales, 2019b).

Identity is a powerful foundation for a territory to build upon. However, in debates about territory and education, its place in the definition of a territory is one problem that has yet to be resolved (Haesbaert, 2013b; Pulgarin, 2011; Salinas-Silva et al., 2016; Vanzella Castellar, 2011). The problem is two-fold as it involves, on the one hand, an issue of pupils’ integration into a narrative and, on the other hand, an issue of teachers’ identity formation.

The first problem focusses on the pupil. Catherine’s practice was effective in transforming an environmental education proposal into a narrative that united the agendas of different people and organisations in a process of extended scaffolding (Chapter 3) to support pupils’ learning. However, as Biesta (2018, p. 249) argues, notions of ‘social integration and cohesion always raise the question as to who needs to be integrated into what or cohere with whom, and also who is allowed to set the agenda and define the terms of integration and cohesion’. Catherine was allowed to set the agenda partly because the narrative she and her colleagues created about Chacayes for the pupils was, ultimately, what defined and demarcated the locality.

The story of a common territory enabled the work of teachers in Chacayes but it raises questions about identity politics (Simon et al., 2015). Teachers developed a narrative based on the environment and indigenous heritage mediated by art and compelling stories about the past of the locality. This can be considered effective teaching (Pages, 2007) because it created engaging learning environments for the pupils. However, how the story is told matters, and even though it is effective teaching, art finds its way of imprinting information presenting facts selectively (Bourdieu, 1993). The same goes for the use of stories that appeal on an emotional level to pupils' family history (Casassus, 2017). The creation of a territory appears to be similar to a process of social engineering (Brauchler, 2017) that encourages particular mindsets and collective behaviours.

However, Catherine and her colleagues' constant interactions with a community of active parents and partners embedded them in an informal but effective accountability system (Childs et al., 2014) that held them responsible to the locality and prevented them from incurring any potential manipulation. Territories are powerful constructs that enable the work of teachers but, for the same reason, they have to be looked at and kept in check (Ainscow, 2015). Furthermore, the teachers' agenda in Chacayes had a sense of 'traceability' that made their practice reliable. The examples and innovative content used by the team of teachers and park stewards in the environmental workshop can be traced back to the studies generated in the natural reserve. Thus, the information they used in the workshop could be inspected and verified (Kidman and Chang, 2020). In the same vein, the local narrative elaborated in the school was informed by the elders of the community and agreed upon by the teachers at the school. Catherine's microcentro provided an additional inter-school level of peer oversight (Puttick, 2016) that was particularly productive, given the presence of the former head teacher of Chacayes who was still active in another rural school of the commune.

This informal system of checks and balances, however, was not observed in other cases nor did it emerge in the survey with rural teachers in the province. José's case indicates the consequences of this. Even though he had conceptual clarity about what his purpose in education was, his ideas about the implementation of a Freirean project of education were not necessarily sanctioned by the rest of his colleagues, raising questions as to what extent his practices corresponded to a particular pedagogy or indoctrination. Nevertheless, despite José's political emphasis dominating his own professional story during the interviews, his lesson observations appeared to be guided by his subject knowledge rather than political ideology, suggesting that his professional compass (Brooks, 2016) could also be viewed as a device of self-government (Foucault, 2009) that contributes to the exercise of constraint in everyday practice as part of José's processes of negotiation in his multiple identities as an activist teacher.

The second problem in the relationship between territory and identity extends the previous discussion as it is also an issue of the teachers' professional identity. Brooks (2016, p. 129) argues that teacher identity formation is a continual process of negotiation that involves 'resistance, transformation and compliance as individuals juggle with alternative images and conceptions of what it means to be a teacher'. Territories serve as spatial constructs of these images that demarcate their domain or area of influence.

Carlos depiction of the microcentro can be considered as an example of such negotiation linking professional identity and belonging to a group of rural localities. Because of this, it became a successful platform for teachers to achieve autonomy in their own rural localities, a feature of rural teachers' professional identity observed by Ávalos (2004) in other contexts. However, Carlos suggested that the microcentro was a victim of its own success on this matter. Even though there were mechanisms to prevent the parochialism of their professional views and learning techniques, the microcentro generated images and conceptions of the rural teacher that were exclusive to their particular rural areas. In this process, Carlos' image of self (Bandura, 1997; Bent, Bakx, and Brok, 2017) – personal and professional as rural teacher, collided with younger, non-local generations of rural teachers that were outsiders to the localities where they taught. They drove from their homes in urban areas to work on teaching hours contracts, unaware of the image of rurality that was being produced in the microcentro. Teachers at the microcentro had overcome isolation, funding cuts and even the closure of rural schools but ultimately it was disbanded because of the internal collapse driven by a shift in teachers' professional identity.

8.4. Territoriality

Territorialisation, territory and territoriality are part of the same phenomenon that focusses on the creation of spaces. In previous sections, I have explored how this is part of multiple processes of territorialisation. These processes created territories that are either enacted or inhabited as realities experienced by the case teachers. Territoriality integrates these notions as part of the overarching dynamic, a pathway (Escobar, 2015; Mansilla-Quiñones and Melin-Pehuen, 2019) defining the relationship that agents and people generate with space. In this concluding section, I will highlight, based on the analysis of our case studies, how case teachers' territorialities take the form of teachers' spatial agency that operationalises a particular project of education (Biesta, 2018; Freire & Giroux, 1985). I will explore these two features separately, but it is important to notice that they are part of the same concomitant characterisation of the case teachers' territoriality.

In the following sub-sections, I wish to suggest that territoriality is the feature of our triad that weaves all the pieces together into a fabric of produced territories. I will particularly concentrate on how case teachers' territoriality is deployed as a form of teachers' spatial agency and how territorialities are envisaged as teachers' projects of education.

8.4.1. Teachers' spatial agency

The relationship between space and practice is somehow problematic as it is not sufficient to say that a particular action occurs in a location to argue for its spatiality. Catherine's rich teacher-community relationship did not happen only because the inhabitants of the school's locality were active and had already established solidarity networks (Durkheim 1997; Herzog 2018). She had to work on it. We have seen in Chapter 5 how Catherine and Claudio (her predecessor as headteacher) were conscious of how the mismanagement of the crisis after the 2010 earthquake by their predecessor almost got the school closed. This event was in their living memory and possibly one of the reasons it made their out-of-the-classroom practices so important for them. The notion of territoriality becomes relevant to recognise Catherine's almost imperceptible work out of a classroom to make possible her relationship with the community. Catherine's interactions involve deploying agency (Priestley et al., 2015) but in a specific form associated with space.

Studies on situated learning (Lave and Wenger, 1991) and place-based (Riley et al., 2018) learning tend to misunderstand the limits of the extent and influence of space in education by only acknowledging that space has an inherent value. Indeed, places might be generated by different functions and meanings (Soja, 2010; Tuan, 1990) but for the case teachers in this study, someone (actually them) had to mediate at some point to have a space for themselves. In this sense, individuals and groups live in a continuous relationship with space that becomes territoriality by the exercise of agentic practices (Biesta, 2020; Priestley et al., 2015).

In studying the territoriality of case teachers' professional practices, we can understand spatial agency as the process of engaging in highly networked spaces populated by interactions with people (Milton Santos, 2017a). The notion of networked space was discussed in the previous section but here I would like to appeal to the weaving part of teachers' territorialities as what is entangled by their practices are places, people and meanings. This paints a further complex image of what teachers do at schools as their professional practice (Arenas-Martija, 2009; Brooks, 2016) is involved in a two-folded process of active participation (agency) and situated awareness of their practice (space).

Catherine achieved agency by bringing people together on different levels: their pupils in relation with their locality; the parents and tutors in relation to the school; the school partners in relation with the

teachers. Spatial agency involves weaving all these different levels together. Duarte (2017) and Maturana and Rojas (2015) have suggested that in this practice of attributing meaning to the relationship with space, the territory becomes a symbol. In this case, that represents the socio-cultural relations of solidarity (Herzog, 2018) that a geographically bound community might have amongst its members.

José's case, however, challenges this understanding of territoriality because even though he builds spaces of relationships that are consistent with the networked notion of territoriality, he also presents us with a case that developed a two-fold territoriality. On the one hand, a territoriality that involved pushing for a determined agenda in education in communion with his colleague from the teacher union and, on the other hand, a form of territoriality that was created in the connections with his hometown. This particular homegrown territoriality spawned different territories that José observed as part of his professional trajectory in the province. These two different understandings informed each other and coexisted as a multi-layered notion of space and practice. Its multiplicity was beneficial in the case of José because it enabled him to negotiate the different knowledges that he generated in different places (hometown, workplace, university) and integrate them into his own professional identity as part of a process of professional learning.

The case teachers' spatial agency has its own particularities. Rurality has served as a context for the cases but that represents also its own form of territoriality. The analysis of the case teachers' practices frequently presented how their work was conducted in uneven conditions which, to some extent, reflected the conditions of working in rural contexts in Chile (Araya et al., 2012a; Nuñez et al., 2016; Oyarzún, 2020b). In 2020, Catherine was still working in a 'temporary' emergency building set up after the 2010 earthquake. Carlos' pupils were amongst the few in the area that still had a rural school nearby as the neighbouring commune had closed its rural establishments and moved the pupils to urban schools. José did not have a permanent job and his substantial knowledge of the province came in part from his everyday geography experiences travelling during the week to multiple schools scattered hours away in the province. The specificity of this spatial inequality (Woods, 2011) is reflected by Santos (2017a) for different contexts in South America, where its rural networks, in particular, have been co-opted by multiple agendas given its proximity to economically valued spaces.

The notion of territoriality as a spatial agency is particularly important because it shows how the case teachers did not take their school contexts for granted. In the three cases, we have seen how they have adapted to the rural context of their schools by learning from their inhabitants, and by later pursuing projects in their localities, with different levels of success. Territoriality, in short, describes

the work that the case teachers identified as their contribution to the school localities where they were situated, based on their role and professional identity as rural teachers.

8.4.2. Teachers' project of education

In previous sections, I have explored how the case teachers' territories have been produced by different territorialisation processes. These processes depict the different movements that an agent could participate in or influence to make possible a project of territory. Territoriality focusses on the part related to the projection, which defines a possible horizon or projected reality. This feature is key to understand how case teachers accommodate the particularities of their context to their professional expectations and the level of resources available to them in a particular space and moment.

For the case teachers, the projects that they have enacted reunited different characteristics as the culmination of their professional practice. The epitome of their notion of a project comes with the position that is assigned to the pupils as agents or, as José described, them as 'subjects' using the European and South American conceptualisation of the term as a being aware of its own historical existence. As Biesta (2018, p. 246) argues

subjectification, which, in opposition to socialisation, is not about how individuals become part of existing orders but how they can be independent – or as some would say: autonomous – subjects of action and responsibility. While qualification and socialisation can contribute to the empowerment of individuals in that it gives them the power to operate within existing socio-political configurations and settings, subjectification has an orientation towards emancipation, that is, towards ways of doing and being that do not simply accept the given order but have an orientation towards the change of the existing order so that different ways of doing and being become possible.

The notion of a project is one of the key themes in José's case as he outlines a projected territory for the different school contexts in which he has been working as a teacher. José's territoriality is characterised by his attempt to appropriate those contexts using the implementation of a Freirean project of education that better adapts to his professional identity as an activist teacher. José's territoriality also involves a sense of ownership of those spaces where he was raised and has been able to access them as a rural dweller. José's case helps us to expand on this understanding as his professional practice enacts the promise of critical pedagogy: in the broadest sense, of education as part of a project of freedom, and eminently political because 'it offered students the conditions for self-reflection, a self-managed life, and particular notions of critical agency' (Giroux, 2010, p. 716).

In the process of territory formation, we can understand José's notion of territoriality as a promise that also defines the horizon of opportunities that he can foresee in the near and possible future. This establishes a differentiation between Carlos' (Chapter 4) and José's (Chapter 6) cases as part of two

separate deterritorialisation and reterritorialisation processes. The former highlights the end of a project of rural education that culminated with the closure of Carlos' microcentro, while the latter involves José's potential generation of a project of rural education. These projects have different territorialities as they define different horizons to reach for in the future. Carlos' territoriality involved the decay of the microcentro project of rurality, which, in the end, produced the generational shift that fragmented the professional identity of the rural teachers in his commune. Carlos' project of rurality was not able to control the uncertainties that José's case shows, i.e. precarious teachers' expectations about their future work (Bent et al., 2017), rural inhabitants neglected agendas (Nuñez et al., 2016), hybrid notions of what rural is (Robson et al., 2007), lack of clarity to situate where 'the local' is in the rural areas and, therefore, lack of preparedness to understand rural pupils (Cloe, Marsden, and Mooney 2006; Corbett 2013). All these aspects appeared as certainties in Carlos' themes but as open problems for José. These issues, rather than a problem, are part of the promise that José's project of territoriality can fulfil in a near, but undetermined, future.

Carlos' and Catherine's cases differ from José's in this gap between prospective and experienced territories. In Carlos' and Catherine's cases, their project of education is or has become, at some point, a spatial reality, i.e. an operational territory. This perspective of a territory as a spatial ontology (Brooks, 2016; Herner, 2009; Mansilla-Quiñones & Melin-Pehuen, 2019) is a key idea associated with the territorialities of teachers because it not only relates their notions to the social construction or perception of a territory but to the experience of inhabiting their territories. The teachers, in this sense, were able to experience and even visit their territories. The distinction between the cases also differentiates territory from territoriality. The former involves a sense of materiality that is inexistent in the political project of José but it exists in Catherine's and Carlos' cases. Catherine's school-based territory involved a relationship with places that could be visited and provided meaning to the inhabitant of Chacayes. In Carlos' case, the microcentro contained its own territory as the confluence of different localities into one single organisation.

The notion of a project is similar to the one of implementing an agenda. They both share a sense of purposive action (Danaher et al., 2014a) and management of self and others (Gleadle et al., 2008a). However, the *project*, as it is identified in the practices of the case teachers, is a collective idea of education that represents a broad sense of politics in the teachers' professional practice as it addresses the situated challenge of living together for every participant of their learning communities. Giroux (1988) and Biesta (2018) suggest that this is part of the societal mandate on education that comes with our own existence as political beings living together. In their dialogue about politics and education, Freire and Giroux (1985) agree that teaching and learning involve a political-pedagogical

project that envisages an idea of society. Thus, the notion of territoriality as a project of education is important because it informs curriculum and pedagogy as a collective effort that is geographically diverse, given the mixture of territorialisation processes and projected territories that might exist.

9. Chapter 9 Conclusions and implications of research

The results of the analysis have highlighted the importance of teachers' professional practice when drawing the boundaries of a 'teacher's territory' within a locality. This has been analysed taking the networks of relations that teachers have with their community and the practices they have generated in diverse landscapes and localities into consideration. By exploring the experience of in-service teachers in rural areas of the Cachapoal Province in Chile, the research has concentrated on the particularities of a context, describing teachers' actions to adapt their profession to local demands, but, in the process, generating experience-based expertise to support students' perception about their locality. In this chapter, I synthesise the implications of the interplay between space and profession by drawing together teachers' school-based territories and experience-based expertise practices under the notion of "Territories of expertise".

This notion is a synthesis that illuminates how this research unpacked the complex relationship between teachers' practice, agency and territoriality delineated in its two research questions:

- 1. How do teachers' professional practices influence their school contexts?**
- 2. How can in-service teachers develop a spatially grounded practice that is transformative of the school context?**

The following sections will expand on the heuristic of territories of expertise in relation with its further implications on teachers' professional practice and geography education.

9.1. Teachers' Territories of Expertise

The findings of this research, explored in the analyses in Chapters 4, 5, 6 and 7, indicate in-service teachers' practices appear to be influenced by a combination of subject and practical knowledge specifically tailored for the school context in which the teachers are situated. This is a phenomenon that has been discussed in geography education in relation to the relevance of pupils and teachers' everyday geographies (Catling, 2014; Cavalcanti, 1998; Roberts, 2014) but its implications have been mainly regarded as a content knowledge issue. Butt (2020) has suggested that this understanding reduces the contributions of the field to a scholarship concentrated on 'what works' in teaching geography rather than, I would argue, seeing the productive social and spatial relations that teachers can generate based on those understandings.

In this interplay between space and profession, I would like to suggest the heuristic of *teachers' territories of expertise* to indicate how teachers' practices are not only influenced by their school

context but they can be transformative as well. This suggests that, in the multiple social relations that teachers establish at school, they have generated a particular form of spatial agency, a notion that comes from the study of the case teachers, but it is influenced by the work of Santos (1994; 2017a), Priestley, Biesta and Robinson (2015) and Brooks (Brooks & Hopwood, 2005; Brooks, 2016), which highlights the processes of how teachers make possible their multiple visions of education.

The cases in this study have suggested that the processes of territorialisation are often in dialogue with or even contested by the territorial projects of multiple agents. This is a key insight that we have obtained from the cases of in-service rural teachers of one province in Chile, but it is relevant in other contexts as well, particularly for teachers that have to endeavour to establish a situated presence in their communities and take on this role as part of their professional practices (Kidman and Chang, 2020; Mitchell, 2020; Pulgarin, 2011; Solem et al., 2013). Furthermore, it is also possible to conceive other professions that can generate their particular territorialities in a similar fashion as teachers have demonstrated in this research. It is conceivable that occupations can also engage on similar processes of territorialisation but with interesting differences regarding the pockets of knowledge deployed to envisage a territory and sustain it.

It is within this type of teachers' social relationship, that the notion of territoriality becomes relevant, indicating how an agent (Biesta, 2018; Priestley et al., 2015) – any agent, not just the state – can take possession of, create or have a transformative influence on space (Lefebvre, 1991; Santos, 1994). Hence, teachers' territorialities play a transformative role in their wider school communities. It is within this understanding that teachers' expertise (Brooks, 2016) takes a central place in the argument. From the data analysis presented in previous chapters, it would appear that teachers' expertise is a form of authority by which teachers are recognised in their communities and, thus, achieve agency and power. If territory is the category of space that deals with power (Sack, 1983), it would appear that expertise is the power that teachers deploy in their communities.

The empirical and conceptual analysis of the case teachers suggests that it is through professional expertise (Kemmis, 2009) that they take possession of their role as teachers. Teachers' territories of expertise, then, is a conceptualisation that operates within the realms of the processes of professionalisation. It can potentially be applied to any profession or group of practitioners, but the particularity for teachers, as was explored in the analysis chapters, is that teachers' territories are spatial constructs that gravitate towards the school and are built upon the social and educational relations (Biesta, 2020) that this spatial core generates. The connexion between this core and the edges of the territory is mediated by teachers' expertise to achieve a particular project of education.

In the discussion chapter, I delineated a nuanced distinction between territoriality, territorialisation and territory. Here, the focus on the territory and its relationship with teachers' expertise is utilised as a way of emphasising that the outcomes of teachers' practices can be the creation of spaces. This has multiple implications for teachers' professionalism (D. P. Britzman, 1991; Kemmis, 2009) as, first, it provides an understanding of how teachers' expertise shapes and is shaped by the school context and, second, it outlines a dialogic relationship where teachers attend a school to teach but can possibly learn from it and act upon that knowledge.

9.2. Teachers' professional practice

The exploration of the case teachers' expertise indicates that most of it is built as experience-based expertise which, for the rural teachers in the province, encompasses the acquisition of local knowledge, articulating social relations and exercising tasks that set teachers apart from their initial education. These observations echo previous research that has criticised this attribute as part of the theory-practice gap (Souto, 2013). However, here it is pertinent to consider it as a result of a process of professional learning and development (Brooks, 2015), inherent in in-service teachers' processes of adaptation to new school contexts and uncertain scenarios.

Two of our case teachers, Carlos and Catherine, were primary teachers; thus, some restraint concerning is required for the notion of expertise that is developed here. Catling (2013) and Martin (2008c) have indicated the complexity and range of the knowledge basis for primary teachers and highlighted that for pupils there is an important degree of personal and experiential learning that is negotiated in relation to the subject knowledge. Nevertheless, Catherine built an entire narrative for the school using subject terminology and Carlos was able to interact with his colleagues using their subject expertise to facilitate and receive peer support. Both pockets of knowledge were necessary for Carlos and Catherine to sustain their territories. There is a clear distinction in José's case, though, where this type of knowledge was intertwined with his professional identity as a subject specialist. José's case shows how his professional compass (Brooks, 2016) was even able to articulate and regulate his own political views, cementing his credibility at work.

Teachers' territories of expertise involve, then, a broad understanding of expertise that enables both experience-based and subject notions of knowledge to be operationalised in the construction of a territory. Therefore, rather than concentrate on the definition of the content of the knowledge on which a territory is based, it is important to focus on the knowledge infrastructure (Edwards et al., 2011) that enables its use. Catherine's case shows how important it was for her project of territoriality to make sense of the information that they were generating for a broader community of teachers in

the school and microcentro and to be able to communicate their contribution to the multiplicity of partners that interacted with them, each with its own professional language. This observation echoes Kemmis' (2009) argument on 'practice architecture' as the doings and notions of agents that enable and constrain the enactment of pedagogy are part of a situatedness of practice.

Young's (2008, 2011, 2019) claims on specialist knowledge as powerful knowledge, however, avoid the situatedness of the phenomena by generalising access to knowledge as a principle applicable to every space. The limitations in knowledge access were part of the experiences of the three case teachers, echoing Stengel's (1997) argument on the disconnect between school subjects and academic fields. This flaw in the way knowledge circulation operates has been addressed as an issue of social justice (M. Young and Lambert, 2015), a principle that successfully considers the inequalities of the knowledge generation dynamic. However, the experience of the case teachers in rural areas of Chile indicate that there is another practice layer that should accompany this principle, related to the structures in place to facilitate and ensure the circulation of knowledge. Among the multiple partners working with the case teachers, only a few were connected to research activities or hosted qualified specialists on their ranks, leaving the teachers with the task of identifying and systematising the livelihood and particularities of the environment in which the school was situated on their own.

Furthermore, it is not just the case that teachers are filling a void. Case teachers seem to have authority and autonomy in the issues of knowledge circulation and infrastructure in their own territories. This is relevant in the literature that positions teachers not as merely receptors of knowledge but as knowledge producers as well (Brooks & Hopwood, 2005; Guerrero & Reiss, 2020; Guerrero-Hernandez & Fernández-Ugalde, 2020; Martin, 2008c). The notion of territory has multiple implications in this area of studies as it offers a situated understanding in the generation of knowledge, but it also offers a cautionary approximation that considers the limitations of the extent of the claims that teachers – as knowledge producers – could make. Catherine's case is important in this respect because it situates her territory as multiple relations that are built and sustained.

However, the notion of territory is also a vehicle for the knowledge claims that teachers could make from their situated practice. José's case uses the construct of territory to reconcile different pockets of knowledge (Collins and Evans, 2002) with which he has interacted in his professional trajectory. The device that he elaborates as a form of 'territorial literacy' indicates that José was able to interact with multiple sources of knowledge but also contribute with an organisation of the information that he had gathered from his experience of moving between different spaces. José's territories enable abstraction from the local contexts into a general principle on how the province operated.

As Collins and Evans (2007) have argued, the understanding of expertise is rather a process of specialisation in an area than a fixed image where expertise is the attribute of an expert. This infers that case teachers' specialisations in their territories can interact and contribute to other communities. Young and Muller (2014) entertain this notion for the case of professionals as practitioners that are involved in the application of an area of knowledge but not necessarily associated with specific places of production of knowledge. In this sense, teachers' territories are spaces that enable teachers' specialisations and foster unique combinations of professionalism: Carlos' mathematics expertise that facilitated his finance skills in the microcentro; Catherine's environmental expertise in her relationship with the administration of the school; José's subject expertise regulating his political intelligence. Teachers' territories, created using their professional expertise, are limited, then, to the sustainability teachers can provide them, but they also represent a specialised space of knowledge generation.

I would like to put some distance between the implications of the notion of territory in teachers' knowledge generation practices, developed here, and White's (2018) critique on Young and Lambert's (2015) proposal on social justice. White's critique and the notion of territories of expertise developed here share a common concern on how teachers define their specialisation. However, White's position downplays the contribution of school subjects as rather rigid structures; however, the data in this study suggests the opposite. School subjects for the case teachers were seen as spaces of creation that offered time during the week to discuss and generate projects of interest for the community. These efforts require planning and effort from the teachers to achieve. White (2018, p. 332), on the other hand, considers that this enabling knowledge is 'embryonically embedded in everyday knowledge'. White's argument does not consider that the conceptualisations that each area generates are systems of understanding that might be counterintuitive in relation to the regularities of everyday knowledge. This is relevant to consider in the understanding of territoriality; as José's case demonstrates, territory is different to locality. The local is prone to practices of parochialism (Wynne, 2003) but the understanding that José built was based on his everyday geographies interrelated with a multiplicity of places that required another level of systematisation that the notion of territory provided him.

9.3. Geography education

The identification of teachers' territorialities sheds light on phenomenon that are part of teachers' everyday practices. Thus, I wish to suggest that its most important implication is to provide the language for teachers to identify their own contribution in their school communities. The analysis chapters have evidenced how teachers' out-of-the-classroom practices are deeper and more frequent

than we previously imagined. But yet, these practices are downplayed or even imperceptible by teachers because they do not fit the conventional understandings about the profession that are commonly associated to classroom practice.

The implications of these findings for research involve frontier issues in Geography Education. Territory as a geographical conceptualisation that can inform teachers' professional practice in Geography Education and, teachers' professional practice as an area of research that can contribute to overarching educational debates.

In its dialogic relationship between geography and education, geography education can provide a valuable insight in educational processes such as the ones explored in this research related to teachers' understanding of school contexts (Ball, 2012; Vygotsky & Cole, 1978; Wilson et al., 1987), curriculum recontextualisation (Bernstein, 2000; M. Young, 2019), teachers' professional learning, identity and development (Britzman, 1991; Brooks, 2016; Edwards, 2010; Kemmis, 2009). A clear indication of this potential are the current efforts (West, Hill, Finn, Healey, Marvell, Tebbett 2020) in making the geography and education nexus a productive relationship based on the principles of synergy and reciprocity. I consider the conceptualisation on teachers' territorialities and teachers' territories of expertise as a contribution to those efforts which, I think, are part of an international concern amidst the larger societal and geographical transformations that the early twenty first century has delineated for education systems and societies.

These transformations can be seen in any level. In his book about Geography Education Research in the UK, Graham Butt (2020) politely addressed the crisis of the field. Unlike Robert Marsden (1997) or Eleanor Rawling (2004) before him, the crisis depicted is not centred on curricular issues or power struggles with the political establishment, it is about a latent internal collapse. Even though publications have risen – he argues, subject-based research is considered to be lower status, researchers' professional advancement will likely not be driven by the field in the future (and present) and newly available positions at universities are not a platform for sustained research. Thus, in this scenario, his recommendation for the next generation of Geoed researchers is straightforward: 'So, the sensible response is to diversify' (Butt, 2020, p. 253). The exploration of teachers' territorialities is a small step towards this direction.

The community of geography didactics in South America use the notion of territoriality as a threshold concept to foster pupil's learning. According to Pulgarin (2011), the term is at the core of the understanding of citizenship and for others (Gutierrez, Pulgarin, and Vanzella Castellar, 2014) it encompasses the relationship of humans with space. Its importance extends across the region as

several countries have incorporated it as part of their school curricula (Brooks et al., 2017). However, this is considered as an issue of content as something in the realm of 'what works' as Butt (2020) and Biesta (2020) have criticised. The framing of the notion of territoriality within teachers' professional practices, however, will be an important and innovative contribution to expand on the basic question that it is at the core of the field of didactics: 'how to teach...'. If we think of teaching as an educational phenomenon, this terminology can incorporate additional social and spatial complexity to the work of teachers and help them to better support their practice at school.

In this vein, future research might explore the potential for this notion to support the work of teachers of different subjects and school levels. The spatial fluidity of the cases explored suggest that the notion of territoriality can also be explored in urban areas expecting different deployments of agency but similar expectations in the work with the communities.

New perspectives within research groups such as the Latin-American Network of Geography Didactics (Redladgeo) or the Chilean Society of Geographical Sciences (Sochigeo) have highlighted the importance of expanding the understanding of the future challenges for the teaching profession and the role of geography in it (Miranda, 2016; Stefenon, 2017). These discussions are associated with the need of bridging the relationship between schools and their communities (Dentice and Garrido, 2013; Mansilla-Quiñones and Melin-Pehuen, 2019) which involves a common effort of building (and rebuilding) networks, partnerships and project that could give support to research and initiatives in the area as the commission of Geography Education of the Sochigeo has stated (Arenas Martija et al., 2016).

Seow (2013) and Mitchell (2017) have previously demonstrated that teachers and their schools are competing with narratives and discourses that are part of governmental pressures and wider social changes in different international contexts. The understanding on teachers' territories might provide a useful input to highlight the relevance of the teacher profession in society as well as keeping in check the knowledge and social dynamics that gave this profession authority in different school settings.

This study also has further implications internationally, as it contributes to the understanding on how to navigate scenarios of uncertainty. As much of the rest of the world at the beginning of the 2020s, political consensus in Chile and in other countries in the world is less likely to be achieved and nationwide projects are becoming increasingly unmanageable for democracies. The study of teachers' territorialities then, as well as of other professions, can contribute to better understand the politics of professions. Its narratives and the influence of agents in apparently neutral technical settings. In this scenario, the initiatives that local agents are implementing in their territories becomes more relevant,

as I have demonstrated, in-service professionals can also assemble dissimilar and sometimes conflicting agendas. In contexts of political polarisation this is likely to become an important skill to respond to the question on how we will live together and how are we going to understand the work of people deploying different forms of spatial agency to transform their own realities and of those surrounding them.

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Appendices

Appendix 1. Instruments – Teachers' semi-structured interview

Teachers' semi-structured interview

1. Let's talk about you, could you tell me about your story on how you become a rural teacher?
 - Could you tell me your story on how you get to work here?
 - Are you from the same locality as the school?
2. What do you like about teaching here?
 - What was the best lesson you taught recently
 - Why, why was it so good?
3. And... what have you learn from working in this school context?
 - What do you think is special about your practice in this school context?
 - What (or how) do students learn here that they could not with other teachers? What are the things in common?
4. ...Can we say that you have built a knowledge of your local territory?
 - What would it be the key elements?
 - How long did it take you to develop?
 - How do you use it in your lessons? How do you incorporate it in activities and examples?
5. What about other knowledges influencing the way you see your territory?
 - What are the dynamics of the community affecting the school and the students?
 - How do you reconcile subject knowledge with your experience here?
 - How do you reconcile curriculum coverage with the particularities of your context?
6. Who has really helped in since you have been here – what did they do?
 - Could you distinguish between the ones from inside and outside your school?
 - Is there a support network at your disposal or any part of it already functioning?
7. Can we take a time to summarise our conversation? [with a map of the school area as visual aid]
 - When you were talking about your local territory, to what you were referring to? Can you make a map of it? – *Provide symbols of different elements*
 - Can you draw a scheme of the network of support required [direct or indirect/formal or informal]? – *Provide markers of different colours*
8. Contribution: Do you think that what you have developed here at your school could be used to support the work of other teachers in a different or similar context?
 - Do you think you could offer support to teachers from other schools based on your own local expertise?
 - How could you use the local expertise of teachers outside your school based?
 - How likely is for you to participate in projects or initiatives with teachers from the area?
 - Do you have any ideas to support your teaching or students within your territory that you haven't complete yet? What are the deterrents preventing this to happen? What kind of support would you need to achieve your proposal?

Entrevista semi/estructurada profesores

1. Hablemos de ti, ¿me puedes contar tu historia sobre cómo te convertiste en un profesor rural?
 - ¿Puedes contarme la historia sobre como llegaste a trabajar aquí?
 - ¿Eres de esta misma localidad?
2. ¿Qué te gusta de enseñar aquí?
 - Cuál ha sido la mejor clase que has hecho recientemente
 - ¿Por qué? Por qué ha sido tan buena
3. Y... ¿Qué has aprendido de trabajar en este contexto escolar?
 - ¿Qué es lo que piensas es especial acerca de tu práctica en este contexto escolar? Paisaje.
 - ¿Qué (o cómo) tus estudiantes aprenden aquí que no podrían con otros profesores en otros lugares? ¿Cuáles serían las cosas en común?
4. ...podemos decir que has construido un conocimiento de tu territorio local?
 - Cuáles serían los elementos clave
 - Cuanto tiempo te demoró en desarrollarlo
 - Cómo lo usas en tus clases. Cómo lo has incorporado en actividades y ejemplos.
5. ¿Existen otros conocimientos influenciando la forma en que ves tu territorio?
 - ¿Cuáles son las dinámicas de la comunidad afectando tu escuela y estudiantes?
 - ¿Cómo reconcilias el conocimiento disciplinar con tu experiencia aquí?
 - ¿Cómo reconcilias la cobertura curricular con las particularidades de tu contexto?
6. ¿Quién te ha ayudado verdaderamente desde que estas aquí – Que hicieron?
 - Podrías distinguir entre los que han sido dentro y fuera de la escuela.
 - ¿Existe una red de apoyo a tu alcance o cualquier parte de ella que esté en funcionamiento?
7. ...¿podemos tomarnos un tiempo para resumir nuestra conversación? [con el mapa del area de la escuela]
 - Entonces, considerando todos estos elementos humanos que te han influenciado a través por el contexto de tus estudiantes, el conocimiento local... ¿cómo definirías tu territorio?
 - Cuando estuviste hablando de tu territorio, ¿a qué te referías? ¿Podrías hacer un mapa de ello? – *Provide symbols of different elements*
 - ¿Podrías dibujar un esquema de la red de apoyo que requieres? [direct or indirect/formal or informal]? – *Provide markers of different colours*
8. Contribución: ¿Crees que lo que has desarrollado aquí en tu colegio puede ser usado para apoyar el trabajo de otros profesores en un contexto similar o diferente?
 - ¿Crees que puedas ofrecer apoyo a profesores de otras escuelas basado en tu expertise local?
 - ¿Cómo podrías usar la experticia local de otros profesores fuera de tu escuela?
 - ¿Qué tan probable es que participes en proyectos e iniciativas con otros profesores del área?
 - ¿Tienes ideas para apoyar tu enseñanza o a tus estudiantes en tu territorio que no has realizado todavía? ¿Cuáles han sido las cosas que te han detenido? ¿Qué clase de apoyo necesitarías para lograr tu propuesta?

Referrer - semi-structured interview

1. Let's talk about you, could you tell me about your story
 - For how long have you been working at your current institution?
 - Could you explain to me about your area of expertise? How did you become a specialist in that area?
2. What has been your experience working with teachers?
 - How would you describe your expertise working with teachers: more related to the discipline or to education?
 - How does the experience of the teachers you have become involved compare with the rest of teachers' professional landscape within the region?
3. ...and how did you become involved with rural teachers?
 - Is there anything in particular in working with rural teachers?
 - What would it be the knowledge landscape of rural teachers?
4. Could you state the reasons in choosing the teacher participating in the study?
 - What makes this teacher stand out in comparison with other similar cases?
 - What is your relationship with the teacher?
 - Was your decision informed by your direct or indirect experience with the teacher?
5. I am trying to understand this teacher relationship with his/her local territory, How would you understand his or her territoriality?
 - How do you see this teacher understands his/her school context?
 - Is it possible to say the teacher has generated a positive impact in his/her school's area
 - Have you experience the feeling that with this teachers' practice his/her students' everyday experiences and places become meaningful?
 - Is this teacher able to create a network of people and resources that has been articulated to support his/her teaching
 - What kind of motivation have you seen from the teacher to adapt their way of teaching to his/her students' local needs
 - To what extent is teachers' own territory is a source to their professional practice?
6. Just to end the interview, let's come back to your relationship with teachers. Could you assess your capacity in interacting with them?
 - Who has really helped in since you have been here – what did they do?
 - What type of skills and resources you have/had to put in place to achieve this actions?
 - What type of problems have you been able to solve in your relationship with teachers?
 - What type of objectives have you achieved in your relationship with teachers?
 - To what extent other stakeholder were involved?

1. Hablemos de ti, puedes contarme de tu historia profesional
 - Por cuanto tiempo ha estado en esta institución
 - Podrías explicar tu área de experticia. Cómo te convertiste en un especialista de esa área.
2. Cuál ha sido tu experiencia trabajando con profesores
 - Cómo clasificarías tu experticia trabajando con profesores: más relacionado con educación o con la disciplina.
 - Cómo se compara la experiencia de los profesores con que te has involucrado con el panorama profesional del resto de los profesores en la región.
3. ...y cómo te involucraste con profesores Rurales
 - Hay algo en particular que tenga trabajar con profesores rurales
 - Cuál sería el conocimiento de los profesores Rurales.
4. Podrías señalar las razones en elegir el profesor participando en este estudio
 - Que hace que este profesor sobresalga en comparación con otros casos similares.
 - Cuál es tu relación con el profesor.
 - Fue tu decisión informada por una experiencia directa o indirecta con el profesor.
5. Estoy tratando de comprender la relación de este profesor con su territorio local, cómo entenderías tu su “territorialidad”
 - Cómo ves que este profesor comprende su contexto
 - Es posible decir que este profesor genera un impacto positivo sobre su contexto escolar
 - Has experimentado la sensación de que con este profesor las experiencias diarias de sus estudiantes se vuelven significativas?
 - Ha sido posible que este profesor generara una red de personas o recursos que ha articulado para apoyar su enseñanza
 - Qué clase de motivación has visto en el profesor para adaptar su enseñanza a las necesidades locales de los estudiantes.
 - En qué medida el territorio de este profesor se ha convertido en una fuente de conocimiento para su práctica profesional
6. Para terminar, volvamos a tu relación con los profesores. Podrías evaluar tu capacidad para interactuar con ellos?
 - Qué tipo de habilidades y recursos has tenido que utilizar para lograr tales acciones.
 - Qué tipo de problemas has podido resolver en tu relación con los profesores.
 - Qué tipo de objetivos has logrado en tu relación con los profesores.
 - En qué medida otros actores estuvieron involucrados
 - Quién te ha ayudado desde que estás aquí – qué hicieron?

Appendix 3. Instruments – Lesson observation

Lesson Observation

School/Teacher:		Pupils:	
Lesson main topic:		Date:	
Lesson aim(s):		Levels:	

References to places

Local	Non-local
Connections	

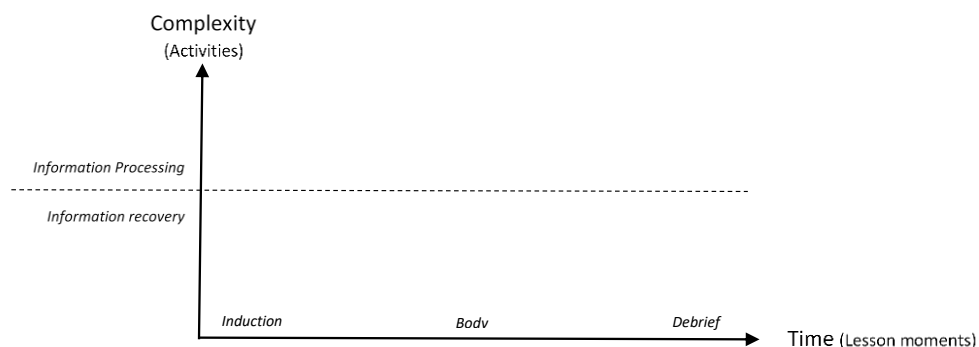
Teachers’ display of tailored knowledge

e.g. tap into prior knowledge, use of a local example, applied concepts, use of questions	
Informed by	Information used
i.e. how it connects with other knowledge, does it display a particular structure, sources	e.g. pieces of information, facts or principles.

Scaffolding: focus on the use of questions and examples for students

Questions, Examples, metaphors or analogies	Associated statement or principle	Supporting elements
	i.e. what is the example illustrating	e.g. Visual aids, demonstration, materials

Learning sequence



Observación

Escuela/Profesor:		Participantes:	M	F	T
Tópico principal		Fecha:			
Objetivo(s):		Cursos:			

Referencias a lugares

Local	No-local
Conexiones	

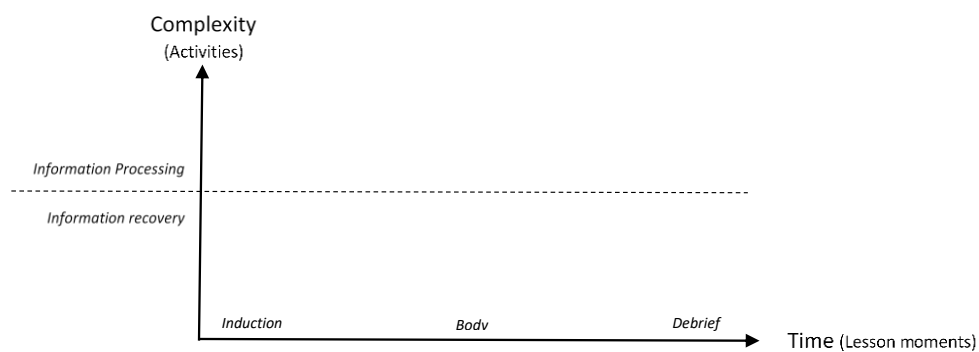
Conocimiento adaptado por profesor

ej. conocimientos previos, uso de ejemplos locales, conceptos aplicados, uso de preguntas	
Informado por	Información usada
i.e. cómo conecta con otros conocimientos, muestra una particular estructura o fuentes	ej. Piezas de información, hechos o principios.

Andamiaje: enfoque en el uso de preguntas y ejemplos

Preguntas, ejemplos, metáforas o analogías	Afirmación o principio asociada	Elementos de apoyo
	Ej. Qué es lo que está ilustrando el ejemplo	Ej. Apoyos visuales, demostraciones, materiales

Secuencia



Car interview protocol

Participant:
 Contact:
 Means of transport:

Participants route design

Previously declared by the participant
 Communicated on site by participant

Method

Car interview
 Walking interview
 Mixed
 Other mobile method:

Recording

Audio	Photographs	Transect	Fieldnotes
Yes <input type="checkbox"/>	Taken by the participant <input type="checkbox"/>	GPS <input type="checkbox"/>	Yes <input type="checkbox"/>
No <input type="checkbox"/>	Taken by the researcher <input type="checkbox"/>	Post multipoint feature <input type="checkbox"/>	No <input type="checkbox"/>
	Geocoded images (*) <input type="checkbox"/>	Sketch (*) <input type="checkbox"/>	

(*) Complementary source

Route and transect

Starting point:	Date:	Time:
End point:	Date:	Time:

▪ **Participant on route comments**

Route location	Comment	Elicited by location or storyline	Visible from route?

▪ **Places visited on route**

Stops (Location/time spend)	Places visited	Participant description of the place	Stopover motive	People met on site (relationship with participant)

Este cuestionario ha sido diseñado para explorar la dimensión geográfica de la práctica docente. Por ello, vamos a preguntar acerca de tu territorio, experiencias geográficas y la forma en que usas el contexto local de tu escuela.

Estamos apuntando a profesores de ciencias sociales o cualquiera enseñando esos contenidos en tu escuela.

I. Sobre usted

Fecha nacimiento:	Dd	mm	año	Lugar nacimiento:	Genero:	M	F	Otro
-------------------	----	----	-----	-------------------	---------	---	---	------

¿Es usted un? : Profesor de educación básica Profesor de educación media

Título:							
Universidad otorgante							
Año en que completó sus estudios	Años trabajando como profesor	Horas contrato ^(semanal)		N° cursos que está enseñando			
		Horas de aula ^(semanal)					

Por favor indique cualquier tipo de formación que completara después de su formación inicial:

Magister Diplomado Pasantía Curso SENCE Curso CPEIP
 Postítulo Otro (señalar):

Acerca de su movilidad y tránsito:

	Si	No	Si la respuesta es No, favor indicar dónde (lugar o localidad)
¿Es usted originalmente de la misma localidad que la escuela en que está enseñando?			
¿Es alguno de sus padres de la misma localidad que la escuela en que está enseñando?			
¿Fue su educación básica en la misma localidad que la escuela en que está enseñando actualmente?			
¿Fue su educación media en la misma localidad que la escuela en que está enseñando actualmente?			
¿Fue su formación inicial docente en la misma región que la escuela en que está enseñando actualmente?			
¿ Viaja regularmente desde la misma localidad en que está su escuela a trabajar?			

II. Acerca de su establecimiento

Actualmente usted está trabajando en una escuela : Urbana Rural
 En que niveles está trabajando : Básica Media

Nombre establecimiento:			Localización:	
Señale el N° aproximado para su establecimiento	Tamaño (N° estudiantes)		N° profesores	
	Cursos (Desde_ a_)		Cursos sin estudiantes matriculados	

Acerca de las tendencias y cambios que su establecimiento ha experimentado en los últimos 5 años (1=Muy en desacuerdo, 2=Desacuerdo, 3=Ni en acuerdo o desacuerdo, 4= Acuerdo, 5=Muy de acuerdo)

El establecimiento...	1	2	3	4	5
...ha atraído estudiantes desde fuera de la localidad					
...ha atraído estudiantes desde contextos urbanos					
...ha incrementado su matrícula de estudiantes					
...ha sido escogido por las familias debido al tipo de pedagogía que implica la educación rural					
...ha anticipado tendencias actuales en la sociedad promoviendo cambios en la localidad					
...ha proveído las mismas o mejores oportunidades a los estudiantes que un establecimiento de ciudad					

I. Acerca de tu red y participación

Favor liste las **organizaciones** (o personas) más relevantes **con que ha trabajado** en algún proyecto o iniciativa a lo largo de su carrera como profesor y que sean **externas** a la escuela (Use los espacios que necesite).

N	Nombre	Actividad	Tu rol	Lugar/Año	Contacto (Opcional)
1					
2					
3					
4					
5					

Favor indique una organización o persona que más lo haya **influenciado** en su práctica profesional.

Nombre:	Relación con ud.:
Razones:	

Acerca de futuras colaboraciones involucrando su trabajo como profesor en contextos rurales (1= No podría hacer esto; 2= Me costaría hacerlo por mi cuenta; 3= Podría hacer esto con un poco de esfuerzo; 4= Podría hacer esto fácilmente)

Afirmaciones	1	2	3	4
Podría ofrecer apoyo a profesores de otras escuelas basado en mi propia experticia local				
Participar en proyectos con profesores de otras escuelas en mi área local				
Liderar proyectos o iniciativas involucrando un equipo de profesores locales				
Recibir apoyo de profesores de fuera de mi escuela basado en su experticia local				
Encontrar apoyo en un equipo de profesores de mi escuela para realizar proyectos				
Conseguir apoyo del entorno de mis estudiantes (familiares, vecinos) para implementar mis ideas				
Conseguir apoyo técnico o de expertos para implementar mis ideas				
Conseguir apoyo de la administración de educación local para implementar mis ideas				
Contactar a alguien en mi universidad de origen para colaborar o buscar apoyo				

¿Eres miembro de una de las siguientes asociaciones de profesores? (Seleccione todos los que aplican)

Microcentro rural Red Maestro de Maestros Colegio de profesores Otro (señalar):

II. Acerca de tus estudiantes

¿Cuál sería el **nivel educacional** promedio de los padres o apoderados de tus estudiantes? (Seleccione una opción)

Ninguno		Básica		Media		Media incompleta		Técnico		Profesional		Postgrado	
---------	--	--------	--	-------	--	------------------	--	---------	--	-------------	--	-----------	--

Favor señale y ordene de la 1ª a 3ª, las tres **ocupaciones** más recurrentes entre los apoderados de sus estudiantes.

1		2		3	
---	--	---	--	---	--

¿Qué tan conscientes están tus **estudiantes** acerca de su propio territorio? (1=Muy en desacuerdo, 2=Desacuerdo, 3=Acuerdo, 4=Muy de acuerdo)

Mis estudiantes...	1	2	3	4
...comprenden la historia del lugar en que viven				
...están conscientes de su historia familiar				
...están conscientes de los riesgos naturales en su ambiente				
...demuestran conocimiento acerca de su ambiente local				
...tienen una actitud positiva hacia su herencia cultural				
...demuestran mejorar su percepción del territorio desde su ingreso hasta que salen de la escuela				

Acerca de la **localidad** de tus estudiantes (1=Muy en desacuerdo, 2=Desacuerdo, 3= Acuerdo, 4=Muy de acuerdo)

Afirmaciones	1	2	3	4
Su paisaje ha experimentado varios cambios desde que comencé trabajando en esta escuela				
Es aislada				
Se ha recuperado de desastres naturales				
Los estudiantes tienen acceso a actividades de ocio y educativas fuera de la escuela en la localidad				
Es probable que los estudiantes dejen la comunidad cuando completen sus estudios				
En la comuna se han cerrado escuelas rurales con consecuencias negativas para la localidad				

I. Acerca del aprendizaje de tus estudiantes en la escuela

Considerando los **aprendizajes** que **tú** has **promovido** en los estudiantes de tu escuela: ¿A cuántos de ellos corresponden las siguientes afirmaciones? (1=Ninguno o casi ninguno de ellos; 2=Algunos de ellos; 3=La mayoría; 4=A todos o casi todos)

Acerca de su comprensión conceptual, tus estudiantes...	1	2	3	4
Quieren discutir asuntos contingentes que están relacionados con el trabajo de la clase				
Identifican rasgos y conocimientos que son característicos de su contexto				
Demuestran conocimiento que no es parte del currículum pero es importante en su territorio				
Conceptualizan información local con conceptos o narrativas globales				
Son capaces de aplicar ideas o teorías a situaciones reales				

Acerca de sus habilidades, tus estudiantes son capaces de...				
Identificar, nombrar, seguir un procedimiento sencillo				
Combinar, describir, enumerar, seguir pasos lógicos, hacer una lista				
Analizar, aplicar, argumentar, comparar/contrastar, criticar, explicar causas, relacionar, justificar				
Crear, formular, generalizar, formular hipótesis, reflexionar, teorizar				

Acerca de sus actitudes, tus estudiantes...				
Buscan información y comprenden más allá de lo que se les presenta				
Realizan preguntas y están motivados en encontrar respuestas				
Aprecian la complejidad del mundo que los rodea				
Identifican y justifican otros puntos de vista				
Tienen un sentido de observación muy agudo				
Demuestran preferencia de trabajar con estudiantes de otras edades				

¿Tus **estudiantes demuestran** considerar los siguientes elementos cuando piensan sobre su **contexto local**? (1=Ninguno o casi ninguno de ellos; 2=Algunos de ellos; 3=La mayoría; 4=A todos o casi todos)

Afirmaciones	1	2	3	4
Demostrar originalidad cuando se enfrentan a problemas				
Ver diferentes rutas para llegar a un mismo punto				
Demostrar una idea en vez de explicarla				
Tener una actitud positiva hacia experiencias de aprendizaje menos formales. Ej. terrenos				

¿Tus **estudiantes demuestran** considerar los siguientes elementos cuando piensan sobre su **contexto local**? (1=Ninguno o casi ninguno de ellos; 2=Algunos de ellos; 3=La mayoría; 4=A todos o casi todos)

Afirmaciones	1	2	3	4
Son capaces de especificar un problema en su contexto				
Son capaces de especificar un área geográfica en que enfocarse				
Recolectar información o basar sus conjeturas en evidencia				
Analizar o seguir una serie de pasos lógicos para llegar a una conclusión				
Interpretar o discutir los datos				

¿Qué tan fácil es para ti **apoyar** a tus estudiantes para que hagan las siguientes tareas por su cuenta? (1= No podría hacer esto;2= Me costaría hacerlo por mi cuenta;3= Podría hacer esto con un poco de esfuerzo;4= Podría hacer esto fácilmente)

Afirmaciones	1	2	3	4
Identifican rasgos y conocimientos que son característicos del contexto de tus estudiantes				
Conocer elementos que no son parte del curriculum nacional pero que son importantes debido al contexto de los estudiantes				
Conceptualizan información local con conceptos globales o conocimiento disciplinar				
Desarrollar habilidades para pensar críticamente				
Desarrollar habilidades que les permita manejarse en otros contextos fuera de su localidad				
Tener una actitud positiva hacia su localidad				
Tener una actitud positiva hacia su ambiente local				
Comprender la situación de su localidad en relación con su región, país y el mundo				

I. Acerca de tu práctica profesional en la localidad

¿Cómo definirías el **territorio** de tu práctica como docente? Favor indica que tan de acuerdo estás con las siguientes afirmaciones (1=Muy en desacuerdo, 2=Desacuerdo, 3=Ni en acuerdo o desacuerdo, 4= Acuerdo, 5=Muy de acuerdo)

Afirmación	1	2	3	4	5
Lo veo como mi contexto escolar, el espacio de mis estudiantes y su comunidad					
Es un espacio donde puedo generar un impacto positivo					
Son los lugares que son significativos para mí o mis estudiantes en el día a día					
Es la red de personas y recursos que he articulado para apoyar mi práctica docente					
Es la motivación para adaptar mi enseñanza a las necesidades locales de mis estudiantes					
Es una fuente de conocimiento para mi práctica profesional					

¿Cómo adquiriste tu **conocimiento local**?

Afirmaciones	1	2	3	4	5
Son originalmente de la localidad o sus alrededores					
Mi formación inicial me preparó para incorporarlo como parte de mi ejercicio docente					
Otro profesor local me ayudó a incorporarlo como parte de mi conocimiento profesional					
Mis estudiantes y sus familias me enseñaron					
Aunque no soy de aquí mi conocimiento disciplinar me ayudó a entenderlo					
He aprendido por observación, compartiendo con la gente de la localidad					
Puedo repetir todo el proceso que me tomo adquirir conocimiento local si me voy a otro lugar					

Pensando en cómo los **contextos rurales** de tu escuela influyen tu práctica...

Afirmaciones	1	2	3	4	5
Considero tener más autonomía en mi practica que un colega de una escuela en la ciudad					
He encontrado consejo y apoyo en colegas que he conocido de otras escuelas rurales					
He manejado la falta de recursos en formas creativas o innovadoras					
Puedo aplicar métodos de enseñanza complejos debido al reducido número de estudiantes					
Tener estudiantes de distintos niveles en una sala mejora sus oportunidades de aprendizaje curriculum y evaluaciones del nivel central pasan por alto las experiencias rurales de mis estudiantes					
A veces he ignorado el curriculum nacional para enseñar contenido que considero debe ser aprendido					
Con otros profesores del área hemos llegado a cierto consenso sobre lo que un curriculum local consiste					
Sé cómo comunicar el valor del conocimiento local en forma comprensible para otros					
La centralización dentro de mí misma región afecta negativamente mi enseñanza					
Una planificación territorial es necesaria para coordinar la administración y el apoyo a la educación rural en la región					

Consentimiento

Al devolver este cuestionario usted está dando consentimiento para usar la información solo para los **propósitos de la investigación**. Este estudio es realizado por Victor Salinas Silva perteneciente al UCL Institute of Education. Su participación en este estudio es voluntaria, por lo que puede dejar de participar en cualquier momento. No existen riesgos conocidos asociados a este estudio. Sus respuestas van a permanecer confidenciales. Se va a minimizar cualquier riesgo anonimizando su participación y restringiendo el acceso a los datos.

¿Quisiera continuar participando en la investigación?

¿Quisiera continuar participando en la investigación para proveer información sobre su experiencia como profesor rural?

(*) Esto involucra una visita a su escuela y dos entrevistas.

Sí No

¿Quisiera recibir información con los resultados iniciales de este estudio?

Sí No

Si marcó SI en cualquiera de las preguntas anteriores, favor proveer su información de contacto:

Nombre:

Email:

Número teléfono o cel:

Este es el final del cuestionario. ¡Gracias por su cooperación!

[Favor devolver el cuestionario o hacer llegar a Victor Salinas Silva v.salinas@ucl.ac.uk]

Letter of presentation sent by post to headteachers in rural schools in the Cachapoal province

INVITACIÓN PARA PARTICIPAR EN INVESTIGACIÓN

Junto con saludar, escribo solicitando su colaboración para difundir la realización de una investigación doctoral que busca indagar en la relación que **profesores en contextos rurales** establecen con su territorio local durante el mes de **mayo y junio** de 2018 en la provincia de **Cachapoal**.

La investigación busca abarcar las 115 escuelas rurales de la provincia de Cachapoal en la región del Libertador Bernardo O'Higgins, esperando levantar información que pueda describir las prácticas docentes de los profesores, el valor de la educación rural en sus comunidades y las redes que se establecen con la comunidad escolar, organizaciones y/o escuelas del sector.

La recolección de datos se realizará en dos fases. La primera fase se efectuará desde el 7 de mayo hasta fines de junio, y busca aplicar un cuestionario (20 minutos aprox.) a un docente que enseñe ciencias sociales de cada una de las 115 escuelas rurales en la provincia de Cachapoal. Durante estas semanas se visitarán las escuelas presencialmente para solicitar su participación y proceder a completar el cuestionario. Esperamos poder contar con su apoyo para que no quede ninguna escuela fuera del levantamiento.

La siguiente fase se realizará durante la segunda parte de junio con profesores que completaron el cuestionario, y estén interesados en continuar conversando sobre su práctica y contexto escolar a través de entrevistas y una visita a su escuela.

Esta es una investigación doctoral independiente y en ningún caso pretende evaluar la práctica de los docentes, sino más bien describir lo que realizan y el sentido que se le atribuye desde un punto de vista territorial. A los profesores que deseen participar, se resguardará su anonimato y confidencialidad de la información que entreguen.

Agradecería mucho que pueda difundir esta información entre sus redes y poder contar con su participación en la investigación. Existe la limitación logística de visitar todas las escuelas previamente a la aplicación del cuestionario para coordinar el mejor horario de aplicación, por lo que ruego su comprensión y cooperación para el día en que se visite su escuela. Si busca mayor información sobre la visita o quiere solicitar los resultados del estudio, no dude en contarme al correo v.salinas@ucl.ac.uk

Saludos cordiales,

Victor Salinas-Silva

PhD student UCL Institute of Education – UK | Investigador Laboratorio de Geografía & Educación PUCV – Chile
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Appendix 7. Instruments – Fieldwork route in the Cachapool province

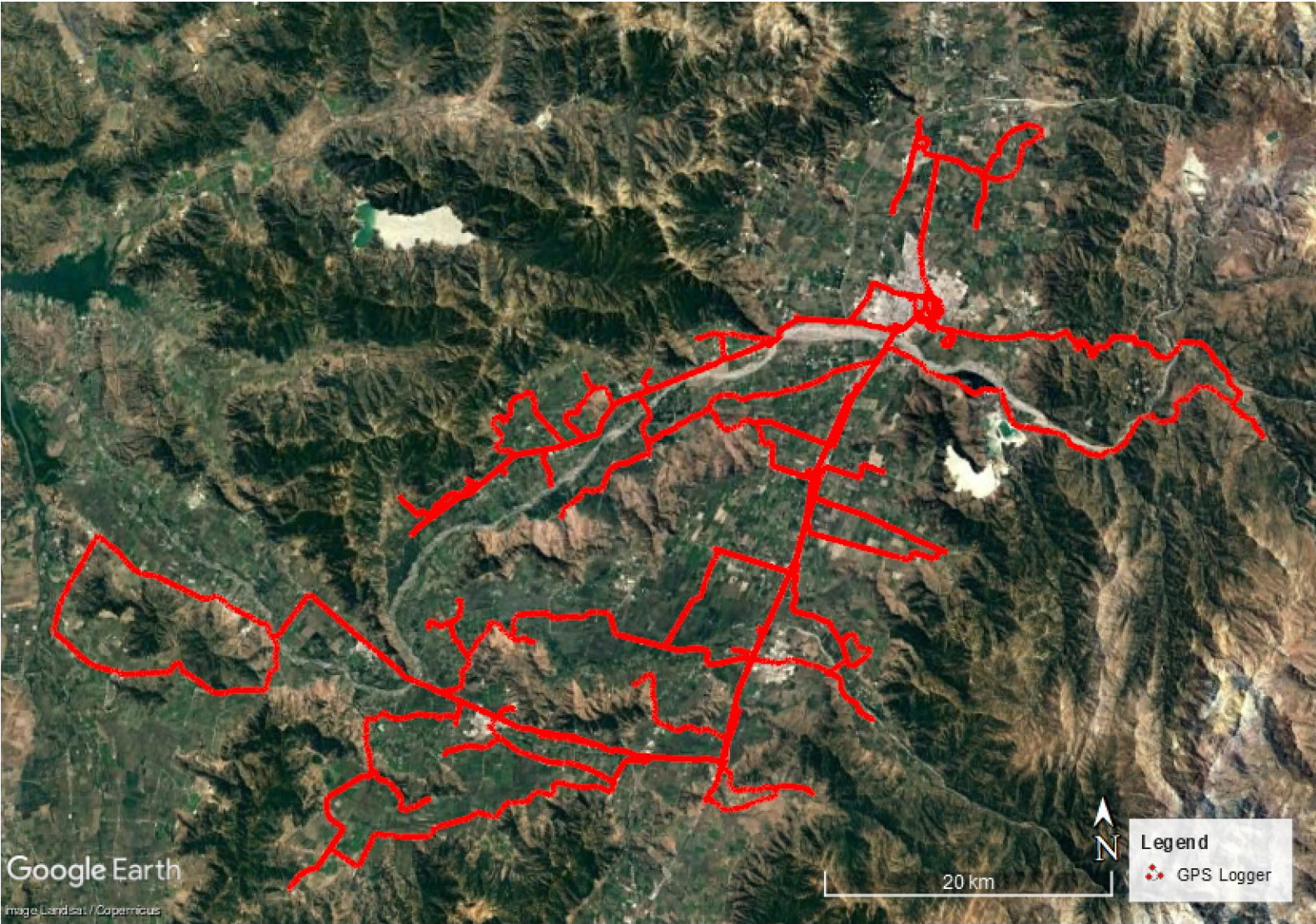


Table 1. Rural teachers and students in Chile by region

Region	Teachers				Students			
	Total	% Regional	Rural	%	Total	% Regional	Rural	%
1	4500	1.8	650	14.4	76330	2.2	9594	12.6
2	7303	2.9	182	2.5	130737	3.7	1795	1.4
3	4133	1.7	160	3.9	65612	1.9	1636	2.5
4	12352	5.0	1931	15.6	164088	4.6	14744	9.0
5	27217	11.0	1452	5.3	351829	9.9	9776	2.8
6	13754	5.5	3269	23.8	189512	5.4	28938	15.3
7	16123	6.5	4353	27.0	211259	6.0	37175	17.6
8	33183	13.4	5060	15.2	419000	11.8	39746	9.5
9	15946	6.4	3998	25.1	201929	5.7	34032	16.9
10	13940	5.6	3460	24.8	183763	5.2	29912	16.3
11	2025	0.8	280	13.8	23527	0.7	1978	8.4
12	2693	1.1	110	4.1	31745	0.9	546	1.7
13	84834	34.2	3124	3.7	1361883	38.5	40945	3.0
14	6363	2.6	1851	29.1	78731	2.2	15924	20.2
15	3521	1.4	324	9.2	51334	1.4	3662	7.1
Total	247887	100	30204	12.2	3541279	100	270403	7.6

Table 2. Rural schools in Chile by region

Region	Total schools (*)	Sciences and Humanities rural schools									Viable for sampling	
		Primary (Ages 5-12/Grade 1-8)				Secondary (Ages 12-18/Grade 9-12)						
		Early childhood education	Preschool	Primary (starting at preschool)	Primary (without preschool)	Subtotal primary	Secondary (multiple roles)	Secondary (starting at preschool)	Secondary (starting at primary)	Secondary (without primary)	Subtotal secondary	Valid rural schools
1	227	18	18	24	42	0	4	0	2	6	44	19.4
2	255	5	5	12	17	0	2	0	0	2	17	6.7
3	182	10	10	27	37	0	0	0	1	1	38	20.9
4	794	68	68	255	323	1	3	0	0	4	323	40.7
5	1284	82	82	53	135	1	2	0	0	3	135	10.5
6	720	171	168	79	247	0	3	0	2	5	249	34.6
7	883	201	200	203	403	1	9	2	0	12	403	45.6
8	1619	232	230	312	542	3	9	2	3	17	545	33.7
9	1166	182	180	481	661	0	9	4	1	14	662	56.8
10	1076	131	131	436	567	2	10	3	1	16	568	52.8
11	87	14	14	17	31	0	2	1	0	3	31	35.6
12	93	7	7	8	15	0	0	0	0	0	15	16.1
13	3172	110	110	17	127	2	16	2	1	21	128	4.0
14	504	78	75	214	289	1	4	3	0	8	289	57.3
15	151	7	7	25	32	0	0	0	0	0	32	21.2
TOTAL	12213	1316	1305	2163	3468	11	73	17	11	112	3479	30.39

(*) Operational schools.

In Chile teachers' education has the connotation of preparing a professional. Initial teacher education has been managed by universities since the late 1960s. Future students decide to enrol in an undergraduate programme to become a teacher after taking a national standardised test to access higher education, similar to any other degree course in Chile. These programmes commonly last for five years.

Primary teachers receive pedagogical and academic discipline training. Depending on the university, most of the programmes consider language and mathematics as foundation subjects for teachers' training, which together with pedagogical and psychology courses will take most of a programme's time. Separated from this structure, future teachers can choose to specialise in science or social science to teach in Year 5 and 6. These courses generally cover a few terms during the five years, which is reduced further, since social science consists of geography, together with history and civics. The amount of time spent on geography could be only a few courses or a mixed course with the rest of social science subjects during the entire degree.

For secondary teachers, enrolment in universities is similar to their colleagues but differ in that they tend to have more modules in subject knowledge. Most of the programmes emphasise the relationship with the parent discipline although they also have courses on pedagogy and/or psychology. Some programmes offer double qualification as a BA or BSC in a subject and also a professional license as teacher. Often, this creates differentiation between the two types of teachers as secondary teachers are regarded as specialist in their subject areas, influencing their professional identity and in some cases creating dissimilarities in the status of teachers because of academic branding in the subject area or knowledgeability in certain topics. For this group of teachers, two of the larger universities have a different model similar to the UK, preparing undergraduates for one year in pedagogy. This model is marginal in the country.

Most teachers' further education programmes for public schools are subsidised by the government and implemented by a private organisation (consultant or university). Generally, these in-service programmes are short update courses (20 hours in total) or diplomas (200 hours). In any case, there is little access to subject specialisation such as geography programmes. In Chile, it is not customary to have a postgraduate degree in any area, although in recent years, government programmes have encouraged teachers and especially head teachers to take a master's degree especially in the area of leadership.

School geography in Chile is part of the national curriculum in primary and secondary education. It is compulsory as part of social studies. Although is not as a single subject, it is distributed across different years with a relative presence in some learning objectives for every level.

Learning objectives in the curriculum are designed to develop students' skills, which are understood as a cognitive process that students have to develop to accomplish a determine task, e.g. identify, analyse or, in the case of geography, locate elements. Most of the subjects are organised by parent disciplines such as mathematics, language, sciences and social sciences, which means that they are based on thinking using content knowledge. Much of contemporary educational literature in use in Chile (Monereo, 1997; Pozo & Postigo, 2000; Marzano & Pickering, 2005) integrates these elements using a competence model, considering school content as the sum of conceptual disciplinary content, cognitive skills and attitudes.

In primary education (ages 5-12) geography is part of the subject of social sciences and its presence is stronger in comparison with the current secondary school curriculum. Geography has been considered a compulsory content since 1920 when public primary education was enforced for all children in the country. Contents at that time were framed as 'geography and history of the homeland and elemental notions of general geography and history, especially of commercial geography' (Dirección Jeneral 1920, p. 7). In the current curriculum, the Ministry of Education considers that the subject allows students to 'better understand the society and their role within. It is shaped by disciplines – History, Geography, Economy, Demography, Sociology and Political Science – that study human beings as individuals and members of society' (Mineduc 2012, p. 178). To teach these different perspectives, the subject is organised with three disciplinary focuses: History, Geography and Citizenship.

It is considered that geographical thinking provides the means for reasoning and thinking spatially (Mineduc, 2012, 180). Progression for 5-10 years old (Table 1) is organised in three stages. In the early years, student's locational skills and orientation are developed in the individual. Then students are taught to recognise the national territory, to develop the skills of observation, and finally to analyse the landscape and Chilean geography. Much attention is given to the use of maps and orientation. Furthermore, as Table 1 shows, from Year 2 the geography curriculum incorporates learning objectives that are subsidiary of history and economics.

Table 3. 'Geography focus' in school primary curriculum for History and Geography. [Adapted from MINEDUC, 2012.] (Salinas-Silva et al., 2015)

Content	Year 1	Year 2	Year 3	Year 4	Year 5-6
Skills of spatial thinking	<ul style="list-style-type: none"> • Use of geography tools (maps and plans) • Relative location 	<ul style="list-style-type: none"> • Relative and absolute location 	<ul style="list-style-type: none"> • Use of geography tools (maps and plans) • Absolute location 	<ul style="list-style-type: none"> • Geographic coordinate system 	<ul style="list-style-type: none"> • Localisation in map (Y5) • Inquiry (Y5) and explanations (Y6)
Geography General Themes	<ul style="list-style-type: none"> • Labour • Cultural diversity in the world 	<ul style="list-style-type: none"> • Landscapes (of Chile) 	<ul style="list-style-type: none"> • Diverse landscapes • Climate zones 	<ul style="list-style-type: none"> • American continent (landscape, resources, physical) 	<ul style="list-style-type: none"> • Geography of Chile • Natural zones (Y5),

				features, population and others).	Political regions (Y6)
Themes to support other disciplines	-	<ul style="list-style-type: none"> • Localisation of historical pre-Columbian indigenous people. • Their relationship with its surroundings 	<ul style="list-style-type: none"> • Influence of geographical factors in classical history (Greece and Rome) 	<ul style="list-style-type: none"> • Problems of economy (resources scarcity, renewable and non-renewable resources, sustainable development) 	<ul style="list-style-type: none"> • Economy: added value to natural resources

In 2013 the importance of geography in the school curriculum was downgraded between year 7 and 10 (ages 11-16) in comparison with previous versions (Table 2). Modifications over the years have turned curriculum change into a constant in the school system, describing what Marsden (1997) identified for England as a politicised curriculum. For example, much of the approach in 2013 curriculum emphasises the use of geography and other social sciences as auxiliary sciences for history. This is paradoxical as the previous curriculum design of 2004 embraced a more contemporary view of the disciplines considering interdisciplinary learning objectives and clarifying the role of geography in three documents: the main document asserting principles and general directions; the programmes of study considering specific geographical objectives, and; the guidelines for assessment where geography had an explicit learning progression from year 7 to 12 and the same position as history and civics. Conversely, geography position today not only has been reduced in presence but it has also been relegated to explaining historical processes; in essence geography has come to be regarded as merely the physical support for history but also it made possible to assign more time to citizenship education as a provisional response to social unrest in the country.

Table 4. *School geography's presence in the secondary curriculum.* [Adapted from Georgudis & Ortiz, 1982, and Garrido, 2013a.] (Salinas-Silva et al., 2015)

School reform	Approach	% of learning objectives in geography curriculum for social sciences
1981	Thematic	35-40%
1998	Interdisciplinary	25-30%
2009	Interdisciplinary, with separate learning objectives from history	25-30%
2013	Integrated into history's learning objectives	10%

Institute of Education



Doctoral Student Ethics Application Form

Anyone conducting research under the auspices of the Institute (staff, students or visitors) where the research involves human participants or the use of data collected from human participants, is required to gain ethical approval before starting. This includes preliminary and pilot studies. Please answer all relevant questions in simple terms that can be understood by a lay person and note that your form may be returned if incomplete.

***Registering your study with the UCL Data Protection Officer as part of the UCL Research Ethics Review Process**

If you are proposing to collect personal data i.e. data from which a living individual can be identified **you must be registered with the UCL Data Protection Office before you submit your ethics application for review.**

If the Data Protection Office advises you to make changes to the way in which you propose to collect and store the data this should be reflected in your ethics application form.

For further information see Steps 1 and 2 of our Procedures page at:

<https://ethics.grad.ucl.ac.uk/procedures.php>

Section 1 Project details			
a.	Project title	Teachers' practice in context: geography, geography education and specialisation	
b.	Student name and ID number (e.g. ABC12345678)	Victor Salinas Silva (13065597)	
c.	*UCL Data Protection Registration Number	Z6364106/2018/02/13 social research Date issued: 06/02/2018	
c.	Supervisor/Personal Tutor	Clare Brooks	
d.	Department	Curriculum, Pedagogy and Assessment	
e.	Course category (Tick one)	PhD <input checked="" type="checkbox"/>	EdD <input type="checkbox"/>
		DEdPsy <input type="checkbox"/>	
f.	If applicable, state who the funder is and if funding has been confirmed.		
g.	Intended research start date	26/02/2018	
h.	Intended research end date	30/06/2018	
i.	Country fieldwork will be conducted in <i>If research to be conducted abroad please check www.fco.gov.uk and submit a completed travel risk assessment form (see guidelines). If the FCO advice is against travel this will be required before ethical approval can be granted: http://ioe-net.inst.ioe.ac.uk/about/profservices/international/Pages/default.aspx</i>	Chile	
j.	Has this project been considered by another (external) Research Ethics Committee?		
	Yes <input type="checkbox"/>	External Committee Name:	
	No <input checked="" type="checkbox"/> ⇒ go to Section 2	Date of Approval:	

If yes:

- Submit a copy of the approval letter with this application.
- Proceed to Section 10 Attachments.

Note: Ensure that you check the guidelines carefully as research with some participants will require ethical approval from a different ethics committee such as the [National Research Ethics Service](#) (NRES) or [Social Care Research Ethics Committee](#) (SCREC). In addition, if your research is based in another institution then you may be required to apply to their research ethics committee.

Section 2 Research methods summary (tick all that apply)

- | | |
|--|--|
| <input checked="" type="checkbox"/> Interviews | <input type="checkbox"/> Controlled trial/other intervention study |
| <input type="checkbox"/> Focus groups | <input type="checkbox"/> Use of personal records |
| <input checked="" type="checkbox"/> Questionnaires | <input type="checkbox"/> Systematic review ⇒ <i>if only method used go to Section 5.</i> |
| <input type="checkbox"/> Action research | <input checked="" type="checkbox"/> Secondary data analysis ⇒ <i>if secondary analysis used go to Section 6.</i> |
| <input checked="" type="checkbox"/> Observation | <input type="checkbox"/> Advisory/consultation/collaborative groups |
| <input type="checkbox"/> Literature review | <input type="checkbox"/> Other, give details: |

Please provide an overview of the project, focusing on your methodology. This should include some or all of the following: purpose of the research, aims, main research questions, research design, participants, sampling, data collection (including justifications for methods chosen and description of topics/questions to be asked), reporting and dissemination. Please focus on your methodology; the theory, policy, or literary background of your work can be provided in an attached document (i.e. a full research proposal or case for support document). *Minimum 150 words required.*

1. Purpose of the research

The research explores teachers' practice and specifically, how rural teachers from social sciences in Chile link with their local context. In doing so, they display specifically tailored knowledge that provides them with an understanding on how to work in their schools. This knowledge, is considered to be geographically informed in the way teachers use spatial information and organise their experience at their workplace. The process of tailoring knowledge to teachers' local needs could take time and effort to achieve. Similar to a process of specialisation in an area of expertise. This is a phenomenon that has been scarcely studied within the literature of teachers' professional growth. Thus, the research will explore the extent of the geographical dimension of teachers' practice and its links to teachers' professional knowledge.

2. Aims

The aims of the research are based in two interlinked dimensions, teachers' expertise and geography:

- To understand teachers' processes of specialisation within their educational contexts on a local level.
- To explore how a geographical dimension informs teachers' practices and understand its variations across territories.

3. Research questions

Main research question:

To what extent the geography of teachers' practice can be linked to teachers' professionalism?

The main research question links two elements that can expand the description and understanding of teachers' practices within rural education, teachers' territoriality and professionalism. The former reflects on teachers' school context as a geographical attribute, the latter explores an expanded understanding of teachers' practices beyond their classroom experiences including their different roles at school and with the community. This research question builds upon the literature on teachers' practice within geography education, teachers' professional practice and geography, informing

different layers of the teachers' experience within their local workplace.

Sub- research questions:

1.1. How do teachers display a relationship with their territory within rural contexts?

The first research question is based on the discussion of teachers' practice within geography education, considering the issues of curriculum-making and geography didactics. Specialisation is taken broadly here to allow teachers' diverse understandings alongside the ones directly related to the notions of subject specialist. This explores the need for an expanded definition of teachers' practice, incorporating issues of professional practice and context as part of their daily routines.

1.2. How can teachers' views on their school context be understood from a geographical perspective?

Teachers' practice has been conventionally understood from psychological or sociological perspectives but not necessarily from a geographical approach. This research question will explore the extent to which teachers' practice can be geographically understood and the contributions of this perspective to help identify teachers' paths in gaining expertise in their own local contexts.

1.3. To what extent does teachers' subject expertise influence their professional practice and links with the school's environment?

Teachers' subject expertise has been regarded as a source of professionalism (Brooks, 2010) and part of the basic role of schools in society (Young & Lambert, 2015). However, in a context of accountability (Mitchell, 2016) and standardisation of practices (Alexandre, 2009), it is pertinent to ask what is the role of subject specialism among these different influences. Furthermore, in what ways teachers navigate their professional knowledge landscapes (Clandinin & Connelly, 1995), especially in relation to their specialisation in particular contexts and the geographical differences that this might involve.

2. Methodology

2.1. Research design

The research design involves a qualitative approach (Flick, 2007) to describe and understand rural teachers' spatial practices within a local territory.

Research questions explore teachers' practices as a professional and geographical phenomenon that is going to be studied considering the knowledge of teachers and their actions articulating a local territory, particularly in rural contexts. The first element revolves around teachers' conceptions on their school context and professional knowledges, which consider –but are not restricted to– subject (Brooks, 2010), tacit (Polanyi, 1983) and local knowledge (Garrido, 2013). The second element refers to the relational expertise (McNamara, Jones, & Murray, 2014) of teachers and their networked expertise (Murdoch, 1998) connecting with others.

A multi-site case study design will involve an exploration of teachers' practices to help to identify how they gain expertise within their territories. This design facilitates that 'the same unit(s) of analysis or phenomenon is studied in light of the same key research questions. (...) Hence, as well as eliciting site-specific findings, a multi-site case study has the potential to enable valid cross-site syntheses and replication claims' (Bishop, 2012, p. 2). Each case is studied separately (Stake, 2005), on a one-case-one-teacher basis. Its multiplicity aims to the diversity of connections that teachers engage with as part of their professional knowledge landscape (Clandinin & Connelly, 1995) across different territories.

The research strategy considers case study (Hesse-Biber, 2010) as a method to describe teachers' practices in each local area and further background data to contextualise and explore the extent of teachers' geography. It is going to involve an exploratory study 'based on non-probabilistic samples of research participants and generate primary data' (Guest, MacQueen, & Namey, 2012, p. 8).

Participants will be teachers' working in rural contexts in Chile regardless of school type (Public, Subsidised or Private). The selection of teachers for both strategies will target rural History-and-Geography teachers or rural teachers with a

background in social sciences. Catling (2013) suggests that teachers with a geographical background have affinity towards environmental and spatial issues, which could possibly suggest they are more aware about the issues regarding spatial experiences providing with further information in this matter. However, as Geography is not a single subject in Chile (See appendix 5), this could limit the extent of teachers' participation because of their relation with multiple disciplines informing their subject knowledge (Salinas-Silva, Perez-Gallardo, & Arenas-Martija, 2015). Nevertheless, Rawling (2004) argues, that studying a single school subject allows to concentrate in the dynamics of being a subject specialist and the relationship with the factors influencing that body of knowledge. Although the expanded notion of specialisation is not defined by subject knowledge, it is considered as a factor defining teachers' professionalism.

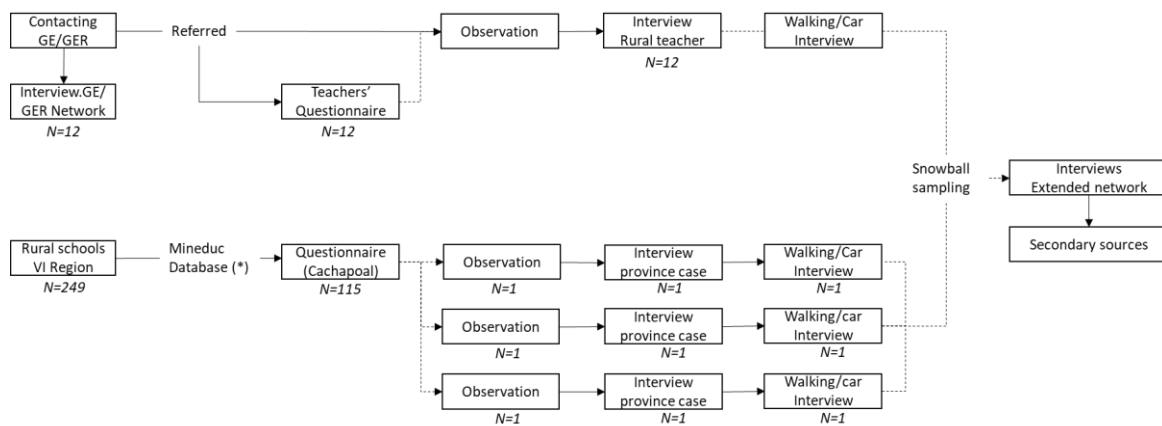
Rural education in Chile extends from year 1 (Ages 5 to 6) to year 8 (Ages 12 to 13) in primary education. Rural schools normally functions with a structure of multi-grade classes taught by one teacher given the reduced enrolment for this schools. Teachers' working at rural schools are mostly primary teachers but there might be cases holding a qualification as secondary teachers.

Rural teachers' play a particular role in their communities. Hence their selection as participants for the study. According to the UNDP 2008 report, they can be considered as part of the 'rural elite or intellectuality' (UNDP, 2008, p. 135), having a voice in their communities and moving from urban to rural spaces and vice versa. Their role combines with an infrastructure that fosters their networked practice. Several groups of rural teachers participate in local professional networks –“Microcentres”- gathering together different rural schools within a borough's boundaries (Moreno, 2007), providing them with a space for professional development that is uncommon for teachers in the country.

1.1. Sampling and data collection

The scope of the research is in teachers' expertise and their involvement with their local territory. Therefore, the selection of cases will involve teachers that have individual links with particular institutions and organisations to then explore the extent of their network. The research will consist of two sampling origins with multiple case studies each (See figure 1). The selection of the first group will consider teachers referenced by an expert, member of a community of subject specialists (Commission of Geography Education-Chilean Society of Geographical Sciences CGE-; Geography Education researcher -GER- or Geography Educator -GE-). The selection of the second group, will be defined by the current work status of in-service teachers at a rural school in one province of the country. Information that is publicly known thought the Ministry of Education and the teachers' membership to a Rural Microcentre.

Figure 1. Work plan diagram



Access to the first group will be prepared through a referred process. Subject specialists in geography education will be asked whether they can identify a rural teacher with whom they are working with or have worked in the past. This will provide with a criterion to select research participants that are externally validated regarding their practice. Members of the CGE are distributed across the country providing with geographical variation for the study (N=12). They will be

interviewed to provide with the reasons underlying their endorsement to the teacher, information of the context and local knowledge traditions.

Once identified, teachers (N=12) will be asked whether they can fill in a questionnaire and to be accompanied during one day in their daily routines. The latter will involve participant observation to share experiences in some of the activities and to build rapport with the teacher about their teaching practices before the interview. The information will be gathered from informal conversation through field notes and photographs. Teachers will be asked to participate in a semi-structured interview (See appendix 2) –audio-recorded- at the end of the day to explore how they describe their specialisation. The interview will also consider a problem-solving item to give teachers the opportunity to explain their views about their school context.

The second sampling strategy will be conducted in one of the two regions in the country that until recently did not have a public university. As teachers' education in Chile is based at universities (See appendix 4), not having one of these institutions negatively affects the presence of specialised geography educators. This will address the issues of selection bias that the first strategy might have and provide with the possibility of doing methodological triangulation. In addition, rural schools in the region account for 34.6% (249 out of 720), which is close to the national average of 30.3%.

The second sampling strategy will use a survey as a different method of approaching rural teachers. Teachers will be selected for the interview given their current status as in-service rural teachers. This information is provided by the Ministry of Education and is publicly available. Teachers for in-depth study will be selected using the same questionnaire applied in the other strategy, which will provide with the characterisation of teachers, focusing on their professional trajectories (Montecinos, Pino, Campos-Martinez, Domínguez, & Carreño, 2014). Spatial information will be required considering the location of any institution or organisation involved in their initial education, professional development or workplace experiences (Formal and informal networks, partnerships, and individual collaborations). Three cases (N=3) will be selected from this process, focusing on teachers with a membership to a rural network (Microcentres) and/or with participation in activities with other organisations. Once selected, observation and semi-structured interviews will be applied in the same way as before.

A subsequent interview will then be arranged with each selected teacher to elicit information from teachers' local context. It will have the form of a participatory walking/driving interview, for which it is argued that facilitates access to 'people's attitudes and knowledge about the surrounding environment. Walking has long been considered a more intimate way to engage with landscape that can offer privileged insights into both place and self' (Evans & Jones, 2011, p. 850). Teachers will be asked if they can participate in a route of their own design with places that are significant for their teaching in the school surrounding. This will provide with richer data, because interviewees are prompted by meanings and connections to the surrounding environment and are less likely to try and give the 'right' answer.

During the survey, semi-structured and walking interviews, teachers are going to be asked about organisations or people (outside their school) influencing their work in the form of programmes, projects or individual initiatives. This extended network of teachers will be explored through a strategy of snowball-sampling (Flick, 2007) using the information from all interviewed teachers (N=15). Documental analysis and interviews will be considered to the staff of these organisations or individuals. The link that teachers create with other organisations or individuals will provide with a relative description of what constitute the local territory of schools. Thus, defining the extent of teachers' agency and the influences of the knowledge that they use (McNamara et al., 2014). The link that each teacher cultivates can differ from case to case, which implicates differences in agenda (Hart, Biggeri, & Babic, 2014), positionality (Wynne, 2003) and level of involvement of the teacher and the counterpart (Blum, 2012).

1.1. Data analysis

The analysis will involve Qualitative Content Analysis (Flick, 2007), specifically thematic analysis (Guest et al., 2012) using the material from the interviews, survey and observations to build on each case separately.

The focus of the thematic analysis is on a descriptive level where the aim is on supporting claims with data. This does not mean that there is no theory guiding the process. Even though the study will be exploratory, the coding strategy will be concept- and data-driven (Gribich 2007), using a combination of themes from the literature review on expertise and the emergent information from the sources.

Multi-site case analysis (Stake, 2005) will be considered for teachers participating in different localities, network or organisation. The analysis will follow a process of data triangulation and methodological triangulation (Denzin 1978). The former involves different spaces and persons to study the same phenomenon by cross-checking data from multiple sources. The latter involves data gathered from different methods such as observations, interviews and questionnaires.

Qualitative spatial analysis will be considered to identify clusters of practices and their spatial affinity, as well as the opportunity to discuss multiple layered representations to question issues of identity, power [and] situated knowledge' (Cope & Elwood, 2009). Clustering teachers' practice (Baker & Yacef, 2009) will involve to group spatial units –using ArcGIS- based on attribute similarity ("similar" in terms of attribute values). This will not involve pattern analysis –that might indicate that the observed spatial pattern reflects the theoretical random pattern represented by [a] null hypothesis' (ArcGIS, 2018).

Spatial analysis is also affected by the data available. Teachers' practices not necessarily make reference to groups that are in close proximity from one another. For example, the area of influence of a university could be significant in defining a particular practice as teacher might have affinity towards knowledge traditions or ways to understand learning that are fostered by those institutions. In some cases teachers' initial education could be determined by universities outside their region. This affects the type of spatial data available to define teachers' territories of expertise. Data analysis might result in not-contiguous expressions of teachers' specialisation as a result of the variation from school to school, as well as their interaction with other groups. For example, organisations providing support for in-service teachers might not be based in the same locality (Ainscow, 2015). Conversely, specialised practices can be derived from the condition of local or enclosed communities of practice (Willy, 2017) generating their own 'pockets of knowledge' (Collins & Evans, 2002).

The research design contemplates different processes and methods to improve the validity of the study. Factual accuracy is address by the combine use of different sources. The cases will be built on the basis of teachers' reports but will also consider the background information provided by referrers and stakeholders.

Reliability is an issue 'If different observers or methods produce descriptively different data or accounts of the same events or situations' (Huberman & Miles, 2002). This is an issue that can be anticipated for observational data, which is going to be address by the use of methodological triangulation using different type of instruments that adds different layers of data but also provide consistency across cases.

Reliability is also a criteria informing the use of the two sampling strategies. The first sampling strategy provides access to teachers directly involved with a network of researchers in geography education. Although this provides with rich data, it can also involve auto-confirmatory bias because the accounts given by these teacher about their relation with the territory might not be the same if the network acting as referrer changes. Thus, the second sampling strategy provides with a different means of access and selection of teachers –through a survey- that can make the accounts of teachers more dependable.

The use of numerical data in qualitative analysis might also involve an issue of descriptive validity. Numerical data will come from the survey applied to the teachers and provides the means to conduct spatial analysis. As Huberman and Miles (2002, p. 48) argue 'what makes this a matter of descriptive validity is that it does not involve statistical inference to some larger universe than the phenomenon directly studied, but only the numerical description of the specific object of study'. Quantitative or mixed methods categorisation do not apply for this data as its use is related to the description and understanding of a phenomenon as well as its use to answer a research question.

Interpretative validity is address by a double process of analysis, concept driven but also data driven, to facilitate that the accounts are 'based on the immediate concepts employed by participants (...) [Providing with] what the objects, events and behaviours mean to the people engaged in and with them' (Huberman & Miles, 2002, p. 48). Furthermore, a process of member checking (Birt, Scott, Cavers, Campbell, & Walter, 2016) will be conducted once the preliminary analysis is ready. Individual reports will be send to participant teachers to ask them how they feel the case represents their own understandings on teachers' practice. This process also will give teachers the option to highlight if they feel uncomfortable with the use of particular excerpts from their interview transcripts. This will add another layer of data to the research, contributing to a better understanding of each case.

Section 3 Research Participants (tick all that apply)

- | | |
|--|--|
| <input type="checkbox"/> Early years/pre-school | <input checked="" type="checkbox"/> Adults <i>please specify below</i> |
| <input type="checkbox"/> Ages 5-11 | <input type="checkbox"/> Unknown – specify below |
| <input type="checkbox"/> Ages 12-16 | <input type="checkbox"/> No participants |
| <input type="checkbox"/> Young people aged 17-18 | |

Participants will be adults, mainly school teachers and staff from universities and organisations working with schools. Their participation will involve an interview and questionnaire. Teachers' participation also considers participant observation and lesson observations, which will only focus on teachers' practices.

NB: Ensure that you check the guidelines carefully as research with some participants will require ethical approval from a different ethics committee such as the [National Research Ethics Service](#) (NRES) or [Social Care Research Ethics Committee](#) (SCREC).

Section 4 Security-sensitive material (only complete if applicable)

Security sensitive research includes: commissioned by the military; commissioned under an EU security call; involves the acquisition of security clearances; concerns terrorist or extreme groups.

a.	Will your project consider or encounter security-sensitive material?	Yes <input type="checkbox"/> *	No <input checked="" type="checkbox"/>
b.	Will you be visiting websites associated with extreme or terrorist organisations?	Yes <input type="checkbox"/> *	No <input checked="" type="checkbox"/>
c.	Will you be storing or transmitting any materials that could be interpreted as promoting or endorsing terrorist acts?	Yes <input type="checkbox"/> *	No <input checked="" type="checkbox"/>

* Give further details in **Section 8 Ethical Issues**

Section 5 Systematic reviews of research (only complete if applicable)

a.	Will you be collecting any new data from participants?	Yes <input type="checkbox"/> *	No <input type="checkbox"/>
b.	Will you be analysing any secondary data?	Yes <input type="checkbox"/> *	No <input type="checkbox"/>

* Give further details in **Section 8 Ethical Issues**

*If your methods do not involve engagement with participants (e.g. systematic review, literature review) and if you have answered **No** to both questions, please go to **Section 8 Attachments**.*

Section 6 Secondary data analysis (only complete if applicable)

a.	Name of dataset/s	"Georeferenced registry of schools"; "Datos Abiertos" Mineduc (2016)	
b.	Owner of dataset/s	Ministry of Education (Mineduc), Chile	
c.	Are the data in the public domain?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
		<i>If no, do you have the owner's permission/license?</i> Yes <input type="checkbox"/> No* <input type="checkbox"/>	
d.	Are the data anonymised?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
		<i>Do you plan to anonymise the data?</i> Yes <input checked="" type="checkbox"/> No* <input type="checkbox"/>	
		<i>Do you plan to use individual level data?</i> Yes* <input type="checkbox"/> No <input checked="" type="checkbox"/>	
		<i>Will you be linking data to individuals?</i> Yes* <input checked="" type="checkbox"/> No <input type="checkbox"/>	

e.	Are the data sensitive (DPA 1998 definition)?	Yes* <input type="checkbox"/>	No <input checked="" type="checkbox"/>
f.	Will you be conducting analysis within the remit it was originally collected for?	Yes <input checked="" type="checkbox"/>	No* <input type="checkbox"/>
g.	If no, was consent gained from participants for subsequent/future analysis?	Yes <input type="checkbox"/>	No* <input type="checkbox"/>
h.	If no, was data collected prior to ethics approval process?	Yes <input type="checkbox"/>	No* <input type="checkbox"/>
<p>* Give further details in <i>Section 8 Ethical Issues</i></p> <p>If secondary analysis is only method used <i>and</i> no answers with asterisks are ticked, go to <i>Section 9 Attachments</i>.</p>			
Section 7 Data Storage and Security			
<i>Please ensure that you include all hard and electronic data when completing this section.</i>			
a.	Data subjects - Who will the data be collected from? School teachers and organisations' staff - all adults		
b.	What data will be collected? Please provide details of the type of personal data to be collected Teachers' practices, teachers' professional trajectories and geographical experiences such as travels or local information.		
c.	Disclosure – Who will the results of your project be disclosed to? Researchers and teachers		
d.	Data storage – Please provide details on how and where the data will be stored i.e. UCL network, encrypted USB stick*, encrypted laptop* etc. Encrypted laptop, encrypted external hard drive, encrypted cloud storage. *Advanced Encryption Standard 256 bit encryption which has been made a security standard within the NHS		
e.	Data Safe Haven (Identifiable Data Handling Solution) – Will the personal identifiable data collected and processed as part of this research be stored in the UCL Data Safe Haven (mainly used by SLMS divisions, institutes and departments)?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
f.	How long will the data and records be kept for and in what format? The research follows UCL research data policy where is stated that research data should be “retained for a minimum of ten years after publication or public release” – Digital records: MS word .docx format, jpeg and mp3 for audio recordings.		
	Will personal data be processed or be sent outside the European Economic Area? (If yes, please confirm that there are adequate levels of protections in compliance with the DPA 1998 and state what these arrangements are: Yes, data protection in Chile is regulated by the legislation 19628 of 1999		
	Will data be archived for use by other researchers? (If yes, please provide details.) No		

Section 8 Ethical issues

Please state clearly the ethical issues which may arise in the course of this research and how will they be addressed.

All issues that may apply should be addressed. Some examples are given below, further information can be found in the guidelines. *Minimum 150 words required.*

- | | |
|--|--|
| <ul style="list-style-type: none">- Methods- Sampling- Recruitment- Gatekeepers- Informed consent- Potentially vulnerable participants- Safeguarding/child protection- Sensitive topics | <ul style="list-style-type: none">- International research- Risks to participants and/or researchers- Confidentiality/Anonymity- Disclosures/limits to confidentiality- Data storage and security both during and after the research (including transfer, sharing, encryption, protection)- Reporting- Dissemination and use of findings |
|--|--|

The project will be informed by the BERA Ethical Guidelines for Educational Research. All the participants will be adults, and the project will ensure that all participants give their informed consent to participate. Participants will be informed that they may withdraw from the project at any time.

The research will be primarily conducted at rural schools in Chile. All participants will be adults, primarily teachers from rural schools. Staff from schools, universities or organisations will be considered as participants providing background information about teachers' practices. They are going to be adults potentially holding a higher education qualification. Their participation will involve an interview and answering a survey. Teachers' participation also considers participant observation and lesson observations, which will only focus on teachers' practices.

A group of teachers participating in the semi-structured interviews will be referred by a local expert in the field of geography. This might involve issues of positionality. Especially in considering previous work-related relationships between local experts and teachers. In this case, anonymity cannot be fully address but confidentiality will be assured. This will be previously discussed with the teachers before they give consent to participate in the research. Access to study records will be limited to authenticated researchers during this research. During the interview participants will be free to not answer or to skip to the next question. After the data collection, teachers' are going to be given with the preliminary analysis. They are going to be given the option to highlight any information with which they are feeling uncomfortable. Additionally, the study will not require from teachers to assess sensitive topics such i.e. ranking the programmes or initiatives of their partners. This may jeopardise teachers' involvement with their partners or stakeholders.

Teachers' participation in the project will be subject to local guidelines regarding permission. The permission of the schools' Headteacher will be necessary, and the ethics regarding participation will be discussed with the headteacher, including the need to protect the anonymity of individual teachers. Where the headteacher is the only teacher in the school, issues of anonymity will be discussed with the participant.

All interviews will be conducted at schools to prevent teachers in incurring in any transportation expense associated with the research.

Before the implementation of the survey, invitation letters will be emailed directly to schools and also to the local representatives of the teachers' networks. Their contact information is stored in a public domain from the Ministry of Education in Chile with access for the general public.

The survey will be on-line and paper based, its implementation will depend on the teachers' preference and circumstances. Participants in the online survey will not be provided with a separate Debriefing Sheet however a debrief statement will be incorporated immediately after the final question. This will include the researcher's contact information and details of relevant support organisations. It will also restate that participants have the right to withdraw, but that by submitting they are agreeing to participate.

A paper based survey is considered as some teachers might have issues with internet access in some rural areas. To address this issue, locally employed research assistants will be considered to provide support in the survey data collection. Their recruitment will be funnelled through the local university requesting previous authorisation from the university's authorities. Research assistants' will be volunteers over 18 years old. Their involvement will be conditioned to their status as pre-service teachers and their participation in a short-course which will provide them with training to ensure ethics and research procedures are follow, as well as emergency procedures. I am going to design and implement this course. Research assistants will provide support only for the application of the surveys and they will not interact with students. They will not

In addition to the data provided by the interviews and survey, data analysis will involve secondary data provided by the Ministry of Education in Chile. This data will provide general background information such as number of teachers per school or georeferenced data in an area. The information provided by the teacher will not be linked or displayed with their identification number in the data base. The use of geo-located data might involve issues of anonymity as schools could be identified. However, results from the survey will be anonymised and, furthermore, displayed in a generalised fashion to prevent individual associations to schools or teachers.

Data will be kept securely, on password protected devices (laptop, external hard drive and cloud storage). The use of the online survey will be through SurveyMonkey, which stores European customer data on its servers in the US. The EU-US privacy Shield Program legalise the transfer of personal data from Europe to the US.

As part of the risk assessment the environment does not represent a safety hazard. The risk for assault is low and contact numbers of emergency are known. A car will be required to travel to schools. This will be needed as an alternative to local buses. The car is going to be check for maintenance and compliance with national regulations. As a driver I am trained and hold the appropriate licence in the country of the research. There will be adequate rest periods to prevent driver fatigue. I am a national at the country of the research and a native Spanish speaker which is Chile's official language.

Section 9 Attachments Please attach the following items to this form, or explain if not attached			
a.	Information sheets, consent forms and other materials to be used to inform potential participants about the research (<i>List attachments below</i>)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Information sheet for school teachers Information sheet for experts and university/organisations staff Consent form – Teachers Consent form – Experts and university/organisations staff Case for support			
If applicable/appropriate:			
b.	Approval letter from external Research Ethics Committee		Yes <input type="checkbox"/>
c.	The proposal ('case for support') for the project		Yes <input checked="" type="checkbox"/>
d.	Full risk assessment (In section 8)		Yes <input checked="" type="checkbox"/>

Section 10 Declaration			
I confirm that to the best of my knowledge the information in this form is correct and that this is a full description of the ethical issues that may arise in the course of this project.			
I have discussed the ethical issues relating to my research with my supervisor.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
I have attended the appropriate ethics training provided by my course.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
I confirm that to the best of my knowledge:			
The above information is correct and that this is a full description of the ethics issues that may arise in the course of this project.			
Name	Victor Salinas-Silva		
Date	30/01/2018		

Please submit your completed ethics forms to your supervisor for review.

Notes and references

Professional code of ethics

You should read and understand relevant ethics guidelines, for example:

[British Psychological Society](#) (2009) *Code of Ethics and Conduct*, and (2014) *Code of Human Research Ethics*
or

[British Educational Research Association](#) (2011) *Ethical Guidelines*

or

[British Sociological Association](#) (2002) *Statement of Ethical Practice*

Please see the respective websites for these or later versions; direct links to the latest versions are available on the Institute of Education <http://www.ioe.ac.uk/ethics/>.

Disclosure and Barring Service checks

If you are planning to carry out research in regulated Education environments such as Schools, or if your research will bring you into contact with children and young people (under the age of 18), you will need to have a Disclosure and Barring Service (DBS) CHECK, before you start. The DBS was previously known as the Criminal Records Bureau (CRB)). If you do not already hold a current DBS check, and have not registered with the DBS update service, you will need to obtain one through at IOE. Further information can be found at http://www.ioe.ac.uk/studentInformation/documents/DBS_Guidance_1415.pdf

Ensure that you apply for the DBS check in plenty of time as will take around 4 weeks, though can take longer depending on the circumstances.

Further references

The www.ethicsguidebook.ac.uk website is very useful for assisting you to think through the ethical issues arising from your project.

Robson, Colin (2011). *Real world research: a resource for social scientists and practitioner researchers* (3rd edition). Oxford: Blackwell.

This text has a helpful section on ethical considerations.

Alderson, P. and Morrow, V. (2011) *The Ethics of Research with Children and Young People: A Practical Handbook*. London: Sage.

This text has useful suggestions if you are conducting research with children and young people.

Wiles, R. (2013) *What are Qualitative Research Ethics?* Bloomsbury.

A useful and short text covering areas including informed consent, approaches to research ethics including examples of ethical dilemmas.

Departmental use


If a project raises particularly challenging ethics issues, or a more detailed review would be appropriate, the supervisor **must** refer the application to the Research Ethics and Governance Coordinator (via ioe.researchethics@ucl.ac.uk) so that it can be submitted to the Research Ethics Committee for consideration. A departmental research ethics coordinator or representative can advise you, either to support your review process, or help decide whether an application should be referred to the REC.

Also see 'when to pass a student ethics review up to the Research Ethics Committee':

<http://www.ioe.ac.uk/about/policiesProcedures/42253.html>

Student name

Victor Salinas-Silva

Student department	Curriculum, Pedagogy and Assessment	
Course	PhD Curriculum, Pedagogy and Assessment	
Project title	Teachers' practice in context: geography, geography education and specialisation	
Reviewer 1		
Supervisor/first reviewer name		
Do you foresee any ethical difficulties with this research?		
Supervisor/first reviewer signature		
Date		
Reviewer 2		
Second reviewer name	Jane Perryman	
Do you foresee any ethical difficulties with this research?	No – it looks straightforward and any issues have been carefully considered	
Supervisor/second reviewer signature		
Date	5/4/18	
Decision on behalf of reviews		
Decision	Approved	<input type="checkbox"/>
	Approved subject to the following additional measures	<input type="checkbox"/>
	Not approved for the reasons given below	<input type="checkbox"/>
	Referred to REC for review	<input type="checkbox"/>
Points to be noted by other reviewers and in report to REC		
Comments from reviewers for the applicant		
<p>Once approved by both reviewers students should submit the ethics application form to the Centre for Doctoral Education team IOE.CDE@ucl.ac.uk.</p>		

INFORMATION SHEET FOR RESEARCH PARTICIPATION - TEACHERS

Study Title: Teachers' practice in context: geography, geography education and specialisation

Investigator: Victor Salinas-Silva UCL Data Protection Registration Number: Z6364106/2018/02/13 social research

I am a PhD student at the UCL Institute of Education, in the Curriculum, Pedagogy and Assessment Department. I am planning to conduct a research study, which I invite you to take part in. This sheet has information about the reason for doing this study, what I will ask you to do if you decide to be in this study, and the way I would like to use information about you if you choose to be in the study.

Why are you doing this study?

You are being asked to participate in a research study about teachers' practices within rural contexts in Chile. You have been chosen because of your qualifications as a History and Geography/Social sciences teacher which is currently in-service in a rural context.

The purpose of the study is to explore how rural teachers from social sciences in Chile link with their local context. In doing so, how they display specifically tailored knowledge that provides them with an understanding on how to work in their schools. This knowledge, is considered to be geographically informed in the way teachers use contextual information and organise their experience at their workplace. It is considered that for teachers, tailoring knowledge could take time and effort to achieve. Similar to a process of specialisation in an area of expertise. This is a phenomenon that has been scarcely studied within the literature of teachers' professional growth. Thus, the research will explore the extent of the geographical dimension of teachers' practice and its links to teachers' professional knowledge.

What will I do if I choose to be in this study?

You will be asked to:

- **Complete a survey.**
- **To be observed in a visit to your school during one working day. This will include shadow observation during your daily activities and lesson observation.**
- **Participate in a semi-structured interview at the end of the school visit to converse about your professional activities in your context.**
- **Participate in an unstructured walking interview to the locations that you consider meaningful for your teaching in the local surroundings.**

Study time: Study participation will take approximately 10 hours depending on the length of one of your working days or the extent of the school visit, together with the walking interview.

Study location: All study procedures will take place at your current school and/or school's surroundings.

I would like to take pictures and do field notes during the observation and, audio-record the visit to make sure that I remember accurately all the information you provide. I will keep these tapes in a

password protected laptop, external hard drive and cloud storage and they will only be used for research purposes. Audio recording is required for participation. I may quote your remarks in presentations or articles resulting from this work. A pseudonym will be used to protect your identity, unless you specifically request that you be identified by your true name.

What are the possible risks or discomforts?

To the best of our knowledge, the things you will be doing have no more risk of harm than you would experience in everyday life. Your participation in this study may involve talking about your professional relationship with your partners or stakeholders. Although data will be anonymised, it is possible that some cases can be unique in a particular region. In this case, anonymity cannot be fully addressed but confidentiality will be assured by not sharing full transcripts with other researchers or third parties. During the interview **you are free to not answer or to skip to the next question. After the data collection, transcripts from your interview will be shared with you by email and you are going to be given the option to highlight any information with which you are feeling uncomfortable.**

What are the possible benefits for me or others?

This study is designed to learn more about teachers' practice and their relationship with the local territory. We may learn new things that will help rural in-service teachers describe their practice and having a sense of what other teachers are doing in different territories. Also, in the future it may help pre-service teachers to know about what it involves to work in rural schools.

How will you protect the information you collect about me, and how will that information be shared?

Results of this study may be used in publications and presentations. Your study data will be handled as confidentially as possible. If results of this study are published or presented, individual names and other personally identifiable information will not be used **unless you give explicit permission for this in the consent form.**

To minimize the risks to confidentiality, the access to study records will be limited to authenticated researchers during this research. Data will be kept securely, on password protected devices (laptop, external hard drive and cloud storage).

I may share the data we collect from you for use in future research studies or with other researchers – if I share the data that is collected about you, I will remove any information that could identify you before I share it. I will not share data that potentially could be identifiable.

Confidentiality may be limited and conditional and the researcher has a duty of care to report to the relevant authorities possible harm/danger to the participant or others.

Financial Information

Participation in this study will involve no cost to you. You will not be paid for participating in this study.

What are my rights as a research participant?

Participation in this study is voluntary. You do not have to answer any question you do not want to answer. If at any time and for any reason, you would prefer not to participate in this study, please feel free not to. If at any time you would like to stop participating, please tell me. We can take a break, stop and continue at a later date, or stop altogether. You may withdraw from this study at any time, and you will not be penalized in any way for deciding to stop participation.

If you decide to withdraw from this study, the researchers will ask you if the information already collected from you can be used.

Data protection Privacy Notice

If you have questions, you are free to ask them now. If you have questions later, you may contact the researcher [Victor Salinas-Silva] at v.salinas@ucl.ac.uk

Notice:

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Your personal data will be processed for the purposes outlined in this notice. The legal basis that would be used to process your personal data will be the provision of your consent. You can provide your consent for the use of your personal data in this project by completing the consent form that has been provided to you.

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Thank you for reading this information sheet and for considering to take part in this research study.

INFORMATION SHEET FOR RESEARCH PARTICIPATION – RESEARCHERS AND STAFF

Study Title: Teachers’ practice in context: geography, geography education and specialisation

Investigator: Victor Salinas-Silva UCL Data Protection Registration Number: Z6364106/2018/02/13 social research

I am a PhD student at the UCL Institute of Education, in the Curriculum, Pedagogy and Assessment Department. I am planning to conduct a research study, which I invite you to take part in. This sheet has important information about the reason for doing this study, what I will ask you to do if you decide to be in this study, and the way I would like to use information about you if you choose to be in the study.

Why are you doing this study?

You are being asked to participate in a research study about teachers’ practices within rural contexts in Chile. You have been chosen because of your qualifications as a History and Geography/Social sciences teacher which is currently in-service in a rural context.

The purpose of the study is to explore how rural teachers from social sciences in Chile link with their local context. In doing so, how they display specifically tailored knowledge that provides them with an understanding on how to work in their schools. This knowledge, is considered to be geographically informed in the way teachers use contextual information and organise their experience at their workplace. It is considered that for teachers, tailoring knowledge could take time and effort to achieve. Similar to a process of specialisation in an area of expertise. This is a phenomenon that has been scarcely studied within the literature of teachers’ professional growth. Thus, the research will explore the extent of the geographical dimension of teachers’ practice and its links to teachers’ professional knowledge.

What will I do if I choose to be in this study?

You will be asked to:

- **Participate in a semi-structured interview.**
- **Provide references about a rural school-teacher.**

Study time: Study participation will take approximately 8 hours depending on the length of one of your working days or the extent of the school visit.

Study location: All study procedures will take place at your current school.

I would like to take pictures and do field notes during the observation and, audio-record the visit to make sure that I remember accurately all the information you provide. I will keep these tapes in a password protected laptop, external hard drive and cloud storage and they will only be used by me. Audio recording is required for participation.

I may quote your remarks in presentations or articles resulting from this work. A pseudonym will be used to protect your identity, unless you specifically request that you be identified by your true name.

What are the possible risks or discomforts?

To the best of our knowledge, the things you will be doing have no more risk of harm than you would experience in everyday life. Your participation in this study may involve talking about your professional relationship with your partners or stakeholders. Although data will be anonymised, it is possible that some cases can be unique in a particular region. In this case, anonymity cannot be fully addressed but confidentiality will be assured by not sharing full transcripts with other researchers or third parties. During the interview **you are free to not answer or to skip to the next question. After the data collection, transcriptions from your interview will be shared with you by email and you are going to be given the option to highlight any information with which you are feeling uncomfortable.**

What are the possible benefits for me or others?

This study is designed to learn more about teachers' practice and their relationship with the local territory. We may learn new things that will help rural in-service teachers describe their practice and have a sense of what other teachers are doing in different territories. Also, in the future it may help pre-service teachers to know about rural schools and what it involves to work in these environments.

How will you protect the information you collect about me, and how will that information be shared?

Results of this study may be used in publications and presentations. Your study data will be handled as confidentially as possible. If results of this study are published or presented, individual names and other personally identifiable information will not be used **unless you give explicit permission for this in the consent form.**

To minimize the risks to confidentiality, the access to study records will be limited to authenticated researchers during this research. Data will be kept securely, on password-protected devices (laptop, external hard drive and cloud storage).

I may share the data we collect from you for use in future research studies or with other researchers – if I share the data that is collected about you, I will remove any information that could identify you before I share it. I will not share data that potentially could be identifiable.

Confidentiality may be limited and conditional and the researcher has a duty of care to report to the relevant authorities possible harm/danger to the participant or others.

Financial Information

Participation in this study will involve no cost to you. You will not be paid for participating in this study.

What are my rights as a research participant?

Participation in this study is voluntary. You do not have to answer any question you do not want to answer. If at any time and for any reason, you would prefer not to participate in this study, please feel free not to. If at any time you would like to stop participating, please tell me. We can take a break, stop and continue at a later date, or stop altogether. You may withdraw from this study at any time, and you will not be penalized in any way for deciding to stop participation.

If you decide to withdraw from this study, the researchers will ask you if the information already collected from you can be used.

Data protection Privacy Notice

If you have questions, you are free to ask them now. If you have questions later, you may contact the researcher [Victor Salinas-Silva] at v.salinas@ucl.ac.uk

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Thank you for reading this information sheet and for considering to take part in this research study.

CONSENT FORM FOR TEACHERS IN RESEARCH STUDIES

Please complete this form after you have read the Information Sheet and/or listened to an explanation about the research.

Title of Study: Teachers' practice in context: geography, geography education and specialisation

Department: Curriculum, Pedagogy and Assessment

Name and Contact Details of the Researcher(s): Victor Salinas-Silva, v.salinas@ucl.ac.uk

Name and Contact Details of the Principal Researcher: Clare Brooks, c.brooks@ucl.ac.uk

Name and Contact Details of the UCL Data Protection Officer: data-protection@ucl.ac.uk

This study has been approved by the UCL Research Ethics Committee: Project ID number:

Thank you for considering taking part in this research. The person organising the research must explain the project to you before you agree to take part. If you have any questions arising from the Information Sheet or explanation already given to you, please ask the researcher before you decide whether to join in. You will be given a copy of this Consent Form to keep and refer to at any time.

I confirm that I understand that by ticking/initialling each box below I am consenting to this element of the study. I understand that it will be assumed that unticked/initialled boxes means that I DO NOT consent to that part of the study. I understand that by not giving consent for any one element that I may be deemed ineligible for the study.

Tick
Box

1. *I confirm that I have read and understood the Information Sheet for the above study. I have had an opportunity to consider the information and what will be expected of me. I have also had the opportunity to ask questions which have been answered to my satisfaction *and would like to take part in (please tick one or more of the following)*
 - *an online/paper based survey*
 - *an individual interview*
 - *a shadow observation and lesson observations during one working day*

2. *I understand that I will be able to withdraw my data up to *[insert date if stated on the Information Sheet]* OR *[insert text clearly defining time limit e.g. 4 weeks after interview]*

3. *I consent to the processing of my personal information *only limited to professional trajectories* for the purposes explained to me. I understand that such information will be handled in accordance with all applicable data protection legislation.

4. **Use of the information for this project only**

*I understand that all personal information will remain confidential and that all efforts will be made to ensure I cannot be identified (*unless you state otherwise, because of the research design or except as required by law*).

Anonymity is optional for this research. Please select from the following 3 options:

- (a) I agree for my real name and role/affiliation to be used in connection with any words I have said or information I have passed on.
- (b) I request that my comments are presented anonymously but give permission to connect my role/affiliation with my comments (but not the title of my position).
- (c) I request that my comments are presented anonymously with no mention of my role/affiliation.

5. *I understand that my information may be subject to review by responsible individuals from the University (to include sponsors and funders) for monitoring and audit purposes.

6. *I understand that my participation is voluntary and that I am free to withdraw at any time without giving a reason, [*without the care I receive or my legal rights being affected*].

I understand that if I decide to withdraw, any personal data I have provided up to that point will be deleted unless I agree otherwise.

7. I understand the potential risks of participating and the support that will be available to me should I become distressed during the course of the research.

8. No promise or guarantee of benefits have been made to encourage you to participate

9. I understand that the data will not be made available to any commercial organisations but is solely the responsibility of the researcher(s) undertaking this study.

10. I understand that I will not benefit financially from this study or from any possible outcome it may result in in the future.

11. I agree that my pseudonymised research data may be used by others for future research. [No one will be able to identify you when this data is shared.]

12. I understand that the information I have submitted will be published and I wish to receive a copy of it. Yes/No

13. I consent to my interview being audio/video recorded and understand that the recordings will be:

- Stored anonymously, using password-protected software and will be used for training, quality control, audit and specific research purposes.

14. I hereby confirm that I understand the inclusion criteria as detailed in the Information Sheet and explained to me by the researcher.

15. I hereby confirm that:

- (a) I understand the exclusion criteria as detailed in the Information Sheet and explained to me by the researcher; and
 - (b) I do not fall under the exclusion criteria.
16. I am aware of who I should contact if I wish to lodge a complaint.
17. I voluntarily agree to take part in this study.
18. Use of information for this project and beyond

I would be happy for the data I provide to be archived on password protected devices (laptop, external hard drive and cloud storage).

I understand that other authenticated researchers will have access to my [anonymised] [pseudonymised] data.

19. **Overseas Transfer of Data** *[if applicable]*

I understand that my data will be transferred out from Chile and anonymity, confidentiality and data security safeguards will be put in place

If you would like your contact details to be retained so that you can be contacted in the future by UCL researchers who would like to invite you to participate in follow up studies to this project, or in future studies of a similar nature, please tick the appropriate box below.

Yes, I would be happy to be contacted in this way

No, I would not like to be contacted

Name of participant	Date	Signature
Researcher	Date	Signature

CONSENT FORM FOR PARTICIPANTS AT UNIVERSITIES AND ORGANISATIONS STAFF

Please complete this form after you have read the Information Sheet and/or listened to an explanation about the research.

**Title of Study: Teachers' practice in context: geography, geography education and specialisation
Department: Curriculum, Pedagogy and Assessment**

Name and Contact Details of the Researcher(s): Victor Salinas-Silva, v.salinas@ucl.ac.uk
Name and Contact Details of the Principal Researcher: Clare Brooks, c.brooks@ucl.ac.uk
Name and Contact Details of the UCL Data Protection Officer: data-protection@ucl.ac.uk
This study has been approved by the UCL Research Ethics Committee: Project ID number:

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Tick
Box

1. *I confirm that I have read and understood the Information Sheet for the above study. I have had an opportunity to consider the information and what will be expected of me. I have also had the opportunity to ask questions which have been answered to my satisfaction *and would like to take part in (please tick one or more of the following)*
 - *an individual interview*
2. *I understand that I will be able to withdraw my data up to *[insert date if stated on the Information Sheet] OR [insert text clearly defining time limit e.g. 4 weeks after interview]*
3. *I consent to the processing of my personal information *only limited to professional trajectories* for the purposes explained to me. I understand that such information will be handled in accordance with all applicable data protection legislation.
4. **Use of the information for this project only**

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- (d) I agree for my real name and role/affiliation to be used in connection with any words I have said or information I have passed on.
- (e) I request that my comments are presented anonymously but give permission to connect my role/affiliation with my comments (but not the title of my position).

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 8. No promise or guarantee of benefits have been made to encourage you to participate
 9. I understand that the data will not be made available to any commercial organisations but is solely the responsibility of the researcher(s) undertaking this study.
 10. I understand that I will not benefit financially from this study or from any possible outcome it may result in in the future.
 11. I agree that my pseudonymised research data may be used by others for future research. [No one will be able to identify you when this data is shared.]
 12. I understand that the information I have submitted will be published and I wish to receive a copy of it. Yes/No
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 15. I hereby confirm that:
 - (c) I understand the exclusion criteria as detailed in the Information Sheet and explained to me by the researcher; and
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Yes, I would be happy to be contacted in this way

No, I would not like to be contacted

_____	_____	_____
Name of participant	Date	Signature
_____	_____	_____
Researcher	Date	Signature

The lesson

René started his first lesson of the day 7pm at night at the adult education programme of the Liceo San Juan Bautista. The secondary public school of Hualqui. He had to teach a History and Geography lesson about the countries, regions and continents of the world. When he greeted the students one of them replied back asking him about his cousin.

René described his students as a group of young people in their twenties. He knew his stories well since he was the adult-education coordinator. Prospect students had to talk with him to enrol in the programme. Some of them were familiar faces to Rene because they attended to the school years before, but they had dropped out school to work, usually in the family business.

The teacher planned the lesson as a plenary. Groups of about five students presented the outcome of their work, a research about a country or a region. Student's presentations described the countries using demographic and political information such as the number of inhabitants and the neighbouring countries, aided with images and maps. The presentations were brief and some of them used inaccurate information. In the class, there was a group of three Haitians. They presented in different groups and the rest of their classmates helped them to find the words in Spanish for their presentations.

Students answered questions from the rest of the class during their presentations and received feedback from the teacher. One of the groups showed a clip about horse raiding in the Middle East, to which Rene commented about the "lost art" of horse racing in Hualqui's main streets not long ago. The students responded with a sound of sudden realisation "aaah", as some of them knew that fact but they were not fully aware about the obvious connection.

The school

In the morning, René had a meeting at 10am with the History and Geography department in the teachers' room. The group of four teachers conferred about the school's plan of citizenship education. This was part of a recent national policy fostering democratic values at schools. René was in charge of the first step of the plan to help generate a student government and elect class representatives at the school. He spend the rest of the day visiting each classroom to announce the plan and looking for possible candidates.

In between meetings, René used to spend time with other group of colleagues from the History and Geography Department based in the administration room. One of them was Luis. The chief of the

Pedagogical Technical Unit (UTP), a role that coordinates the academic work at school, oversees lesson planning and marking procedures. René considered him a respected colleague. A person to talk about their school subject and the history of the town.

The teacher

The lesson observation did not deliver in-depth information about René's teaching practice and the shadow observation in the school was very limited. However, it was his surroundings and the special relationship that René showed towards people and his locality that provided with a meaningful account of the events of that day. It allowed me to have access to features of René's professionalism that are invisible in teachers' practice. Let's examine René's lesson and his day at school once more:

"The student asked about René's cousin"

The student knew René's cousin. René Ibáñez Carvajal is a Secondary teacher of History and Geography native from Hualqui. He was born and raised in the town. His childhood is in connection with the Redolino, one of Hualqui localities. As he explains further below, this connection with the locality explains how his social network and kinship is entangled with his professional one.

Carlos is my cousin. He taught them "convivencia". The physiotherapist that comes to the school is also my cousin. We are all bonded together and the student. So, there is another colleague with a sister here at the Liceo and other colleagues with their children here at the school.

Rene Ibáñez Carvajal interview

Understanding the story of René is understanding his hometown. Hualqui is a small town where most of the people have a similar livelihood. According to René, "Hualquinos" work in similar jobs related to the forestry industry and small businesses providing services to the city of Concepción (30 minutes to the north), one of the three metropolitan areas of Chile and the largest in the south of the country.

According to René, Hualqui is currently a dormitory town of Concepción. However, to René was important to stress that is not the town's identity. It has an agricultural history from the cultivation of wheat and apples as part of an urban system that provided food to the neighbouring coalmining towns, steel workshops and port in the 20th century.

The rural lives in our cosmivision, in our understanding as a town. In our traditions. There is lots of people, old "hualquinos" that have family in the countryside. They have memories of the countryside and how there is a family history full of memories of the countryside: the threshing season, wine harvest [and] the blessing of the wheat [Santiguar]. In the old days there was a wheat tradition here. Also vineyards. Nowadays everything changed to forestry activities.

Rene Ibáñez Carvajal interview

The connection to the land is underpinning the case of Rene. It is part of his family history. Rene's father was a rural teacher *'He taught in several schools and ended up in the Redolino, where my grandparents lived. He ended up in the school where he was raised'* (Rene's car interview). This story was well known by the rest of the teachers at the school and they made references to it when they talked about Rene.

He did not study there but my granddad lived there and donated the land to build the school (...) the majority of the people there was illiterate. So, when my granddad retired from the army he came to Hualqui and he bought land. He was a stranger in the locality. All the people were peasants, so they needed him to do paperwork, to read them the documents. (...) He was the educated person of the locality. So he said that had to change. When the opportunity arrived he donated the land to build the school in that sector.

Rene Ibáñez Carvajal car interview

René's account of his father and grandfather talks about the need of education and its importance in the locality but also about belonging. The story was intertwined with his perception of the local and a particular rationality of what living in a place involves.

V. how would you defined your own territory?

R. It is the surroundings in which I am getting on. The urban and rural space where I and my family lives. It is how I identify myself in relation with my locality, in my case Hualqui, with the culture of my area and also my region. I am a regionalist, I defend my region and its history.

Rene Ibáñez Carvajal interview

The understanding of his own territory exhibited how aware Rene was about the importance of his stories and the role people had in local spaces. There was also a deliberate purpose attributed to his actions as a teacher in his statement as a "regionalist". In defending the region and its history he was appealing to his role as both a native of Hualqui and his profession as a history and geography teacher.

"Students' familiar faces"

When Rene was referring to Hualqui's "cosmovision" as a town, he was also trying to define the identity of the locality. Although Hualqui is considered a city in Chilean standards, its geographical connections and identity made them rural according to René.

For example, the new major. The major uses cowboy boots, Mexican hat... of huaso, he invites the Charros of Tumaco and he is part of the evangelical church. He cannot be more populist. He gives the rural touch to this city and wherever he goes he says "I come from Hualqui, I come from the country side"

Rene Ibáñez Carvajal interview

Schools' rurality is generally associated with a deprived background for the school community in Hualqui. It is the reason teachers consider the profile of their rural students as hardworking people and, furthermore, what drove students into work and out of school.

Today Ignacio did not come, but I saw him passing by in somebody's truck loaded with firewood. "Hey teacher! Here is the money!" He shouted at me.

Diego, Luis Espinoza Olivares Interview

The rural comes together with lack of education and low household income. This is a feature underpinning Rene's everyday practice and the one of his colleagues. This is stated in the Institutional Educational Project (PEI) of Rene's school. Using the students' enrolment information, the leadership of the *Liceo* presented the data framing teachers' expectations. It is presented as a reality check. Parents' education is partially incomplete, mostly without higher education studies (Table 1) and the majority of students' households have an income about the minimum wage (Table 2). The document states the aims and objectives of the school as organisation. It is declared as a product of school's faculty deliberation and to be a guideline for every teacher at the school.

Table 1. Parental education level

	Father	%	Mother	%
Primary incomplete	57	13.1	45	10.4
Primary	74	17.2	87	20.1
Secondary incomplete	71	16.3	90	20.8
Secondary	112	25.8	155	35.8
Higher education incomplete	5	1.1	2	0.46
Higher education	9	2.07	17	3.9
No studies	0	0	2	0.46
No information	114	26.2	34	7.8
TOTAL	434		432	

Source: Students' enrolment 2014. Adapted from Proyecto Educativo Institucional (PEI) 2014-2017, pp.7

Table 2. Socio-economic background

Household income (*)	Number of students	%
0 – 99,000	44	9.18
100,000 – 150,000	63	13.1
151,000 – 199,000	50	10.4
200,000 – 250,000	145	30.2
251,000 – 299,000	15	3.1
300,000 – 350,000	81	16.9
351,000 – 399,000	10	2.08
>400,000	49	10.2
No information	22	4.59
	479	

(*) Figures in Chilean peso. Conversion rate 1 GBP = 879 CLP (04/01/2019)

Source: Students' enrolment 2014. Adapted from Proyecto Educativo Institucional (PEI) 2014-2017, pp. 8

These features are common to urban and rural areas but for teachers in the school community this is considered distinctively linked to the context of public rural education.

Pupil's goals are just to finish their final year at school and then to work in the family business (the main source of jobs in town is the pool business). However, some parents voice higher expectations for their children.

Proyecto Educativo Institucional 2014-2017, pp. 8

Parents and legal guardians' perception of the school affect the expectation of teachers on their students. According to the schools' document, parents that have high hopes for their children to continue their studies have no confidence in the school as a platform for their aspirations. "The school should have more expectations for the students and it should not believe that because we are in a rural area, poor area, we cannot aim higher". Even more, those parents and legal guardians that perceived themselves as less motivated blame the school for their own lack of motivation.

They think this institution is not capable of recognising the personal achievements of some of its students. "My lack of motivation is because the school is not capable of appraise and value its students. It does not acknowledge children achievements outside school".

Proyecto Educativo Institucional 2014-2017, pp. 8

"Rene commented about the "lost art" of horse racing in Hualqui"

The practice of commenting on a local feature that appears in the development of a lesson is a common feature of teaching according to René. He calls it "contextualisation" and it is exhibited in the classroom by the use of examples that the teacher apply to explain a particular content.

The practice of "contextualisation" might, on the contrary, be interpreted as the use of anecdotal information. This could be misunderstood as an opportunistic action to comment on something that is known by the teacher but irrelevant to develop an argument in the lesson.

The rationale underpinning René's comment was different. It involved connecting places:

I create relationships. For example, the lesson that you observed. We were learning about the Middle East, so I said to them something similar. When there were competitions and horse racing [in Hualqui]. "Oh yes!" said a girl. She remembered it. So I told them, there is also the "Carrera a la Chilena" [traditional horse racing in Chile]. So we have to build relationships, to identify which similarities of the curriculum exists with the area we are working with.

Rene Ibáñez Carvajal interview

The relationship created was threefolded. First, it involved showing students something common like horse racing. The fact that there were horse races in Chile and another part of the world was just something common and uninteresting to the students. Thus, the teacher took this uninteresting piece of information and he compared it with the competitions in the locality. That caught the

attention of the students as there was a connection with this distant place in the Middle East. But furthermore, he finally conceptualised that comparison by mentioning “Carreras a la Chilena”. The selection of words here is not random. The “carreras” is a nationwide practice. Therefore, René generalised something common in Hualqui by explaining it with a concept that makes reference to something in a different scale and therefore much more abstract.

The “contextualisation” rationale that applied to the use of examples for the lesson can be found in another initiative of a much larger scale at the school. It was the creation of the course “Study and understanding of the Local Culture” that was implemented between 2005 and 2010 (See Box 1.). It was aimed to be implemented by all schools in the borough and foster “contextualised” teaching. In a highly centralised country, the fact that a public school

V. Why did you say that it was a contextualised [course]?

R. Hualqui has a rural tradition, a peasant’s tradition and several local legends. But, the population in Hualqui started to grow and a lot of people came from other localities within the borough or even Concepción. They did not know the culture, the cultural identity from here. Therefore, [the course] was useful to enhance, sustain or preserve the local identity. That is the reason, it was the main objective of the subject.

Rene in Luis Espinoza Olivares Interview

Rene’s notion of “contextualisation” had a second meaning. If during the lesson it functioned as a way of scaffolding and teaching strategy, outside the classroom it attributed purpose to teaching. The course involved to contextualise content knowledge and in that process built a sense of belonging among the students.

The notion of contextualisation implied that was locally based. René mentioned the importance of the locality and the local level understanding that the course had to foster. However, this indicated that to contextualise the teaching at the *Liceo* they needed the platform that the course could provide. This platform provided legitimacy to their local practice and a space of deliberation with the rest of the colleagues in the borough.

The course also provided a framework of common practice amongst teachers in the *Liceo*. Luis, one of the colleagues of René at the *Liceo* was cautious in explaining that the course, although important, was subject to the individual capacity of each teacher. However, for those that participated, it became a space of collaboration and investment.

It depended on teacher and the focus on the subject. If it was an enthusiastic teacher. We had several enthusiastic teachers. Philippa for example, I remember her. She planned fieldworks [with the students]. Sometimes I accompanied her. Once she asked the students to elaborate a photographic record of the trades, for example, brick craft. So, she used to take the classes over there and they even made bricks. There is a brick factory here in Hualqui. They organised visits to interview

traditional characters of the borough. That was also helpful to me because they created learning material that I was able to apply in teaching other classes. That way we were enhancing the school subject.

Luis Espinoza Olivares Interview

Box 1. Study and understanding of the Local Culture

“Estudio y Comprensión de la Cultura Local”

“Study and understanding of the Local Culture” was a course designed by the teachers of the locality in 2004 aiming to recover the local heritage of Hualqui. The syllabus involved 2 hours of teaching per week and intended to foster students’ understanding of the locality in all schools of the borough, covering content from different subjects from year 1 in primary education to the final year of secondary education.

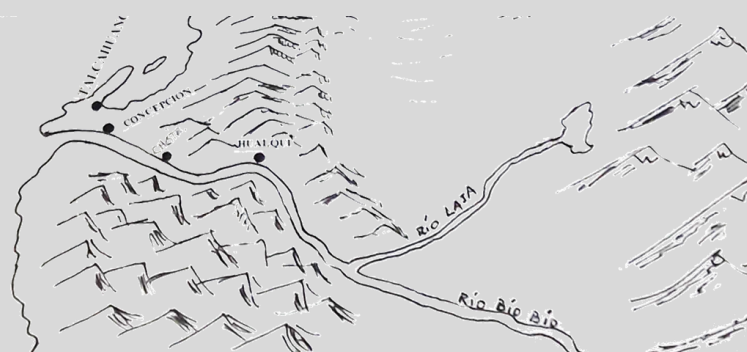
The course was the outcome of a one-year deliberative process involving teachers from all schools of the borough and its local authority. The proposal required internal deliberation at the departments of the different schools. It also involved regular meetings between representatives from different schools coordinated by the education local authority. Teachers with a position in the school leadership known as chiefs of the Pedagogical Technical Unit (UTP) were the ones designated to attend these meetings. The process started in 2004 and in 2005 the local authority submitted the proposal with the full programme of the course to the Ministry of Education.

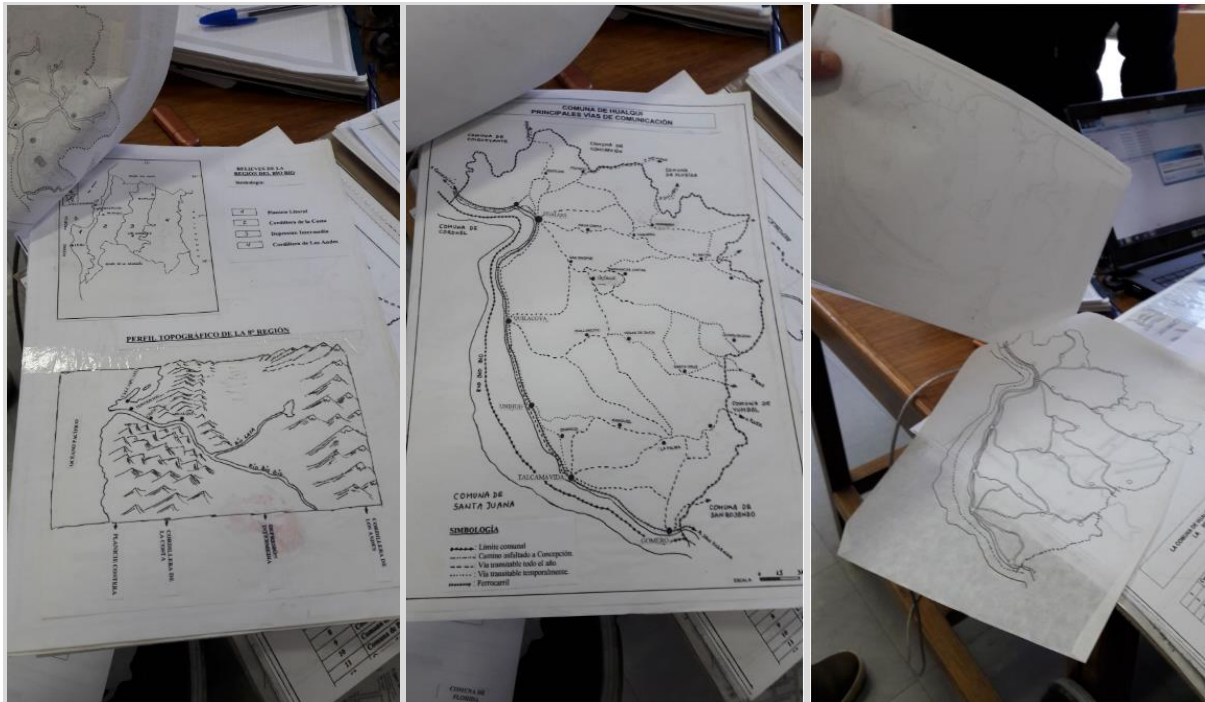
The course was “approved by the ministry of education”. This was a sentence recurrent among the teachers in the Liceo of Hualqui. There was a carried sense of pride when they spoke about it. Teachers were in possession of a programme designed by them and common objectives shared with their colleagues in the borough. Furthermore, it was their responsibility to implement it.

“Approved by the ministry” had an additional sense of uniqueness. Since the mid-1990s schools were allowed to have their own programmes in concordance with the national curriculum. However, few schools were able to create tailored programmes and most of them adopted the national standards, which are the same for every school in the country.

Teachers’ implementation of the course was challenging. It required them to gather documents with information for the borough. A task that was difficult because of the restricted access that small localities have to information and institutions. Therefore, teachers at the Liceo created tailored material such as documents with information about the locality, worksheets and maps.

Material generated by teachers





The initial design of the course involved all schools in the borough. However, teachers declared that the Liceo was the only school in implementing its full programme. In other parts of the locality, the syllabus was taught as standalone workshops or in separate levels without a learning progression.

Municipal elections changed the administration in the locality, with a new major elected the local authority stopped supporting the initiative. The course was discontinued from local schools.

The new major coincided with the rise of an accountability trend in the country. Since funding for schools in Chile were allocated on the basis of schools' results in a national test called Simce, local authorities aimed to improved scores in this test. According to Luis, abandoning the course on local culture involved to lose a "contextualised space" to work with the students. Teachers redirected time into preparing Simce's standardise examination and its nationally defined content.

"Teachers' conferring about the school's plan"

The course was coordinated by the local authority at the municipality. However, René recognised that the initiative was led by Luis and his colleagues and this was a demonstration of teachers' capacity in the borough.

In different levels, René's daytime activities were a demonstration of the micropolitics within the school. He moved from one group of teachers to the other passing information and recruiting people for the citizenship plan. The meeting of the teachers was in this sense an strategy session. All of these were indicators on how the school as an institution is a sum of individual personalities and efforts. The school mural (See Box 2.) was a powerful representation of the imaginaries that bonds teachers' together. René's colleagues, shared believes on the importance of the *Liceo* and how their pedagogy should be as transformative as the future of their students.

Box 2. The school's mural

Interview excerpt

The teacher described the mural from left to right.



Here you can see the student's integral development. Our expectations about them (...) because we are a polyvalent vocational school "technical and professional" and "scientific-humanist". We have aspirations about our students related with the continuity of their studies and employment. So, we look into the future with an eye in students' integral development: creativity, developing critical thinking. What is the aim of all this? That all these cogwheels may transform the world, looking into the future. A transformation using ours school's tie. Supposedly, all the work that we do here tends to transform our social and natural surroundings.

The arts teacher painted it. It was design by several people and the idea just emerged. In fact, the girl in the painting is part of the school's badge. The world that you can see through the window is not obscure. It is full of hope, colourful, full of light and imagination.

There are identity elements of the school. The Biobio River guides us. These are all elements that have always being with us.

Several students participated painting the mural.

If you see it closely, the mural is intact. It was painted in 2016 and yet the kids here show respect. No one has ever painted over it, no one messes with it. Everyone looks at it, cares about it and take pictures with it when they finish school.

It only has two years, but I think is going to stick with the school for longer.

The iconography is important. You have some hidden symbolisms in the mural: about teachers' aspirations.

“Luis”

Luis is relevant in René’s narrative about his teacher practice. He can be categorise as a mentor but René would position him as a dear colleague. Someone to look up but also to work together. Luis and Rene offer a glance in different forms of teachers’ professionalism. There is a symbiotic relationship between the two teachers. One is the source of knowledge. The other one is respected and his expertise recognised by his peers.

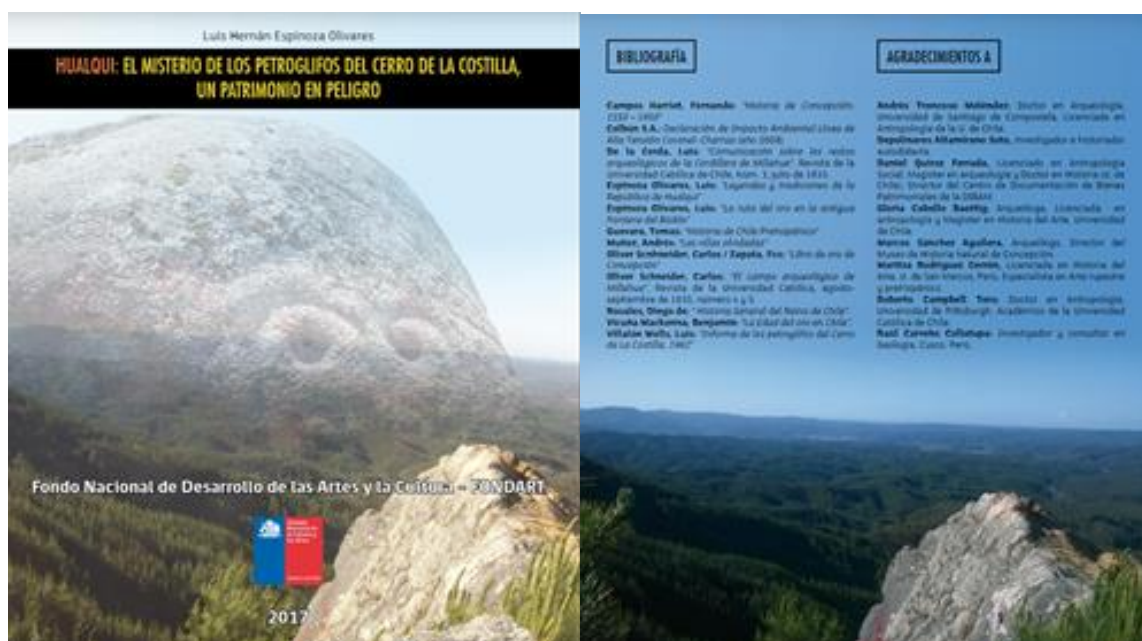
Luis exhibits different attributes of contributory expertise. He has been able to transition between knowledge spaces and communicate the importance of an object or piece of information to others in a different field or social group. This can be observed in the way Luis explains how he created a book about an archaeological site near the locality where pre-Hispanic petroglyphs can be found. He used pieces of evidence of local people to create a narrative about this neglected space and he structured in a way understandable to a community of experts in archaeology. This explains Luis’ hesitancy in categorising the sources of his books as local knowledge.

V. Is this part of your local knowledge?

L. Yes, but I asked for the support of an archaeologist because I am not an expert on it. Written sources and the support of several archaeologists. (...) From different places. Even from Peru. They gave me their views. The relevant thing is that in the summer two archaeologists came to visit as a product of this. They made some measurements and now they have to send me their results.

Luis Espinoza Olivares Interview

Figure 1. Luis Espinoza Olivares 2017 book



In the acknowledgements of the book there is a list of academics that participated contributing with expert knowledge to the book. This offers evidence of the interaction and capacity of the teacher to create a supporting network to accomplish one particular project. This is a particular expertise that is acknowledged by the rest of his colleagues in the school. In this acknowledgement they recognise an specialisation grants him status and a specialist role as in-site local researcher.

V. Is this your book?

L. Yes

M. He is a writer, researcher, novelist and storyteller.

L. As the people say, "I am just a teacher"

M. Our colleague has 4 or 5 books. He studies the myths and legends from here. He is writing all the time.

V. How did you do it?

L. I applied for funding [Fondart: Art and culture projects]

M. He asks everybody... he ask us, students and teachers. He asks everybody what do we have to contribute to his lessons.

(...) This is a permanent job of his. Is not a hobby, he is always researching.

Luis Espinoza Olivares Interview

The difference between Luis and René is the way information is packaged and delivered to an outsider to be understandable. That is an issue of knowledge structure.

Rene had a similar position as a carrier of local wisdom in the school. The colleagues of Rene at the *Liceo* knew the story of his father and grandfather and they came back at him to ask about the headteachers of other schools and the lineage of former teachers in the locality. This idea of school lineage it is transferred to the notion of schools inheriting teachers' past practices. Rene's played a role as oral historian and genealogist of the system of schools in Hualqui.

This was observed in before commencing the car interview. The sole mention of this activity acted as elicitation to the teachers in the teachers' lounge, knowing that René would be the most fitted colleague to show Hualqui and its history.

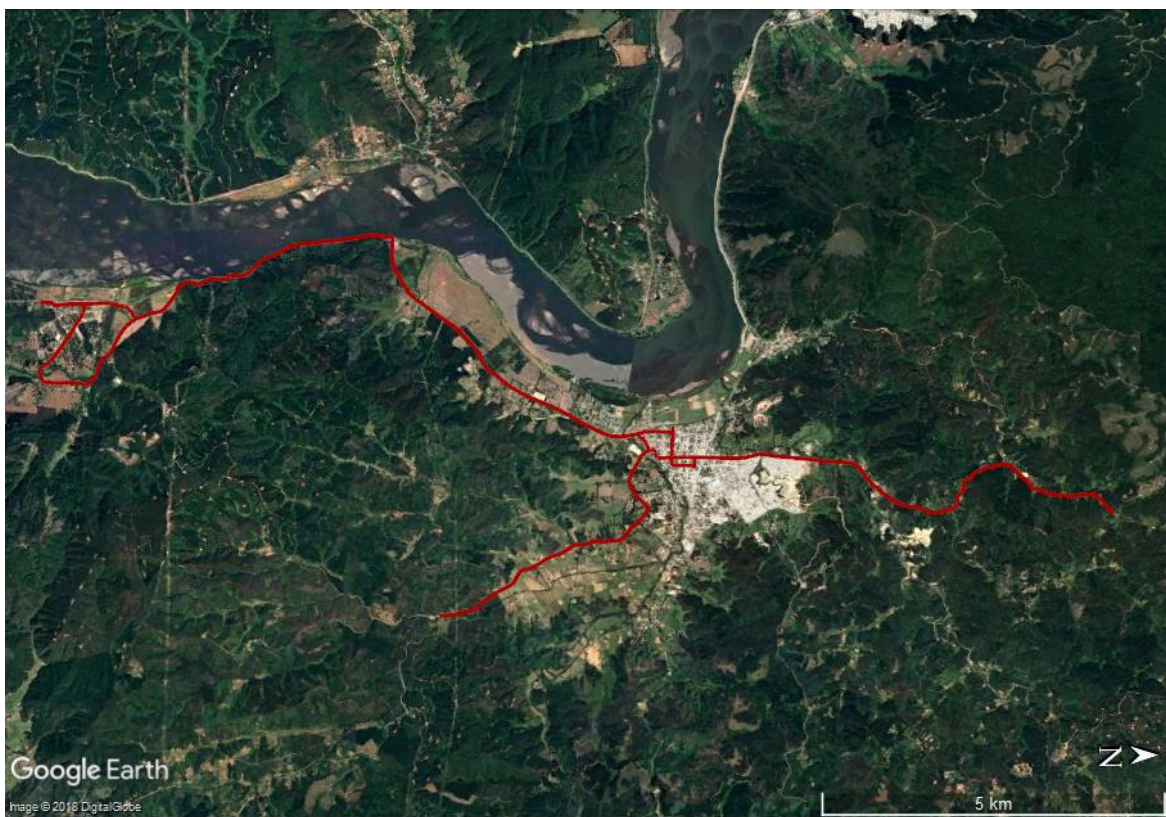
Rene's understanding of his birthplace can be account on the 50.6 Km of the car interview route. In the route he described the history of Hualqui and the particularities of its colonial and modern livelihood. He acknowledge that explaining the origin of the town is particularly difficult given there is no written records of the pre-Columbian period. However he offered different hypothesis of why there was a settlement there. He started explaining the microclimate favourable to cultivate crops as a products of the river basin and the hills surrounding Hualqui. He followed his explanation on a different site of the route, explaining that Hualqui was in a perfect spot to defend the river passing given the fluvial terraces bordering the town. René was elicited by the landscape of the locality and in every turn he offered new information of the place. In explaining what constituted the rural in Hualqui's landscape he offered a glimpse to his way of thinking space.

Well, you now know Hualqui [after the car interview]. You give one step further outside and you are in a rural area. The border between the urban and the rural is difficult to define. I believe it is in the mind, in the perception of the mental geography rather than the physical.

Rene Ibáñez Carvajal interview

This was a multifaceted definition. Therefore, Rene's case highlights the complexity of defining "rural", as it mixes an urban settlement with rural livelihood in connection with a metropolis. The locality is urban according to Chilean standards. This is defined by its population number. However, for Rene and his colleagues Hualqui is a locality with rural history and memory.

Figure 2. Car interview route



Case: Carlos Osorio
Participant: Andrés Osés
Role: Local authority of Education (DAEM), Municipality of Graneros.
Place: Local authority office in Graneros.
Date: 28 June 2018

[English translation]

A: Our main weakness here is enrolment. In the last 10 years our borough lost 200 students per year i.e. 2000 this decade. That was because the emergence of private-subsided schools. They got better infrastructure, they are compelling for the parents because their marketing strategies, so parents move their children to those schools and they do not trust in public education. The other weakness we have is that we have never adjusted our payroll. Teachers in this borough are expensive in comparison with the number of students that are enrolling in our system that in turn grant us the subsidies we need.

V: Can you explain a bit more about the subsidies.

A: Public education in Chile is managed using subsidies delivered by the Ministry of Education. There are three or four state subsidies but they all use the same draconian scheming. We depend on the percentage of monthly students' turnout. They [The Ministry] pay you by student turnout against their enrolment... When you have a student turnout of 90%, 92% in this borough, we receive 10% less of income. We have a deficit of 300 million pesos just because of that.

V: How rural schools are positioned within this system?

A: Rural schools are under the same scheme. There is no difference between urban, conurbation or rural. There is only one procedure.

V: what are the challenge that you have in that context?

A: To find the balance between teacher availability and limited resources.

V: What happens with the teachers?

A: No, teachers have their tenure, so it does not matter if they have students in their classrooms. You have to maintain teachers no matter what. Even if you have 3 students you have to have a teacher. That is not the case for this borough because rurality almost does not exist. We have two schools that have the rural label because they use to be part of a rural locality. But today connectivity makes everything different. [The schools] maintain a rural signature but we do not have schools with 3 students, single-teacher schools as they call them where you can find a teacher for 6 students.

V: Like the Tuniche school in the Rancagua-Graneros road?

A: Sure, and that is a school with an old building, almost obsolete.

V: What does this rural label mean?

A: It is something cultural. I think 25 or 30 years ago there wasn't a paved road. Unpaved roads are always rural and the people's customs are like... rural, people overthere have that signature.

V: What does that mean in its pedagogy?

A: Well, the Tuniche school maintains an artistic-folkloric signature. They recover traditions from the folkloric music of the region. They have a music classroom and this year they have a music teacher. We have delivered resources so they can accomplish their project. The school in La Compañía is part of a heritage path and maintains its traditional rural signature and an environmental signature. All our support is directed to the schools signatures through our pedagogical technical unit (UTP).

V: Can you explain what the UTP does?

A: The UTP has to oversee the mandatory curriculum compliance, as well as extra-curricular activities, training workshops and all of that. They have monthly and fortnightly meetings with the school teams. They are part of a communal network that is also supported by the provincial department to oversee curriculum planning, educational projects progress, and timeframes set by the Ministry of Education. All of that. That is technical work that they do directly with the schools.

[Original in Spanish]

A: Bueno, las debilidades son la baja matrícula, durante los últimos 10 años la comuna perdió la razón de 200 alumnos por año, o sea, más o menos ha perdido 2.000 alumnos en el último decenio producto del surgimiento de colegios de ofertas particular subvencionada, donde hay mejor construcción, mejor infraestructura, ciertas cosas de marketing digamos que hacen atractivo a los papás, irse a esos colegios y no confiar en la educación pública y la otra debilidad que aquí ha habido con los años nunca se hizo un ajuste de dotación por lo tanto hoy día hay una dotación docente muy cara, en relación al número de alumnos que ingresan al sistema por los cuales tú impetras u obtienes la subvención educacional, ya

V: Si puedes explayarte un poco en el tema de la subvención y lo que implica administrar eso

A: Bueno, la educación pública se maneja en Chile a través de subvenciones que entrega el ministerio de educación, la subvención estatal, hay 3 o 4 tipos de subvención principalmente que tienen una formula, un cálculo bastante draconiano por decirlo así, en el sentido de que dependemos del porcentaje de asistencia mensual real que tiene un colegio frente a la matrícula total, te pagan por la asistencia promedio mensual, no por la matrícula que tú tienes durante el mes, te explico, en marzo se matriculan en un colegio que está acá al lado de 650 alumnos, pero asisten a clases alrededor del 90 %, estamos hablando de 600, o sea, vamos hablando de una matrícula de 540, 550 alumnos en aula que son por los cuales tu obtienes la subvención, al tener un promedio de 90, 92 % que es el real de esta comuna, estamos siempre recibiendo 10 % de recursos menos, entonces traducido en un año es bastante dinero, aproximadamente tenemos una merma de aproximadamente 300 millones de pesos solamente por tener un porcentaje de asistencia del 92 %, el óptimo dentro... si se puede hablar de optimo es el 95, porque 100 % no existe, es irreal, siempre hay niños que se enferman

V: Ya y ¿en qué quedan las escuelas rurales en ese contexto?

A: Las escuelas rurales tienen el mismo mecanismo, da lo mismo si es urbana, conurbación o rural propiamente tal, es uno sólo, no hay otro

V: Y en qué se... ¿Cuál ha sido como el desafío de ustedes ahí en ese sentido?

A: Lograr equilibrar la dotación y los recursos que son súper escasos, eso es lo principal

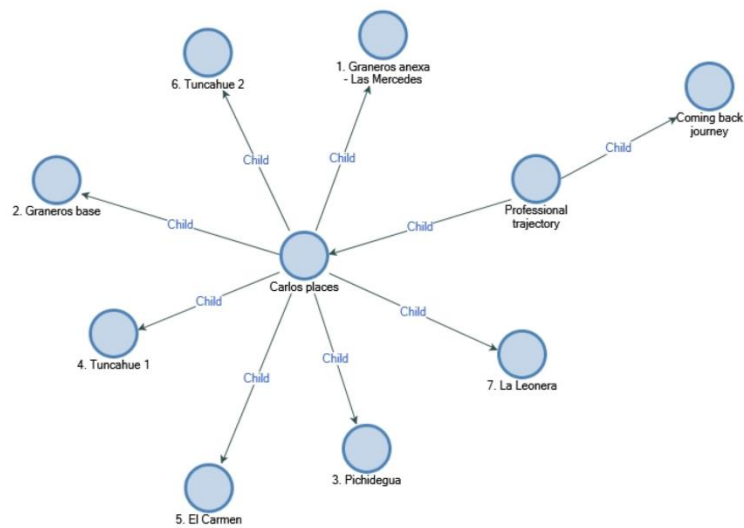
V: ¿Qué pasa con los profesores ahí?

A: No, no, los profesores son titulares, por tanto tengan o no tengan alumnos en un curso tienes que mantenerlos igual, ya, si tienen 3 alumnos hay que tener un profesor, no es el caso de esta comuna pero la ruralidad prácticamente no existe, hay 2 colegios que tienen el adjetivo de rural porque antiguamente esas localidades fueron rurales, pero hoy día la conectividad hace que todo sea distinto y conservan un sello cultural comúnmente como rural, pero no hay escuelas que tengan 3 alumnos, escuelas unidocentes que se llaman donde hay un profesor para atender 6 alumnos, no

Appendix 14. In-case analysis. Coding process example.

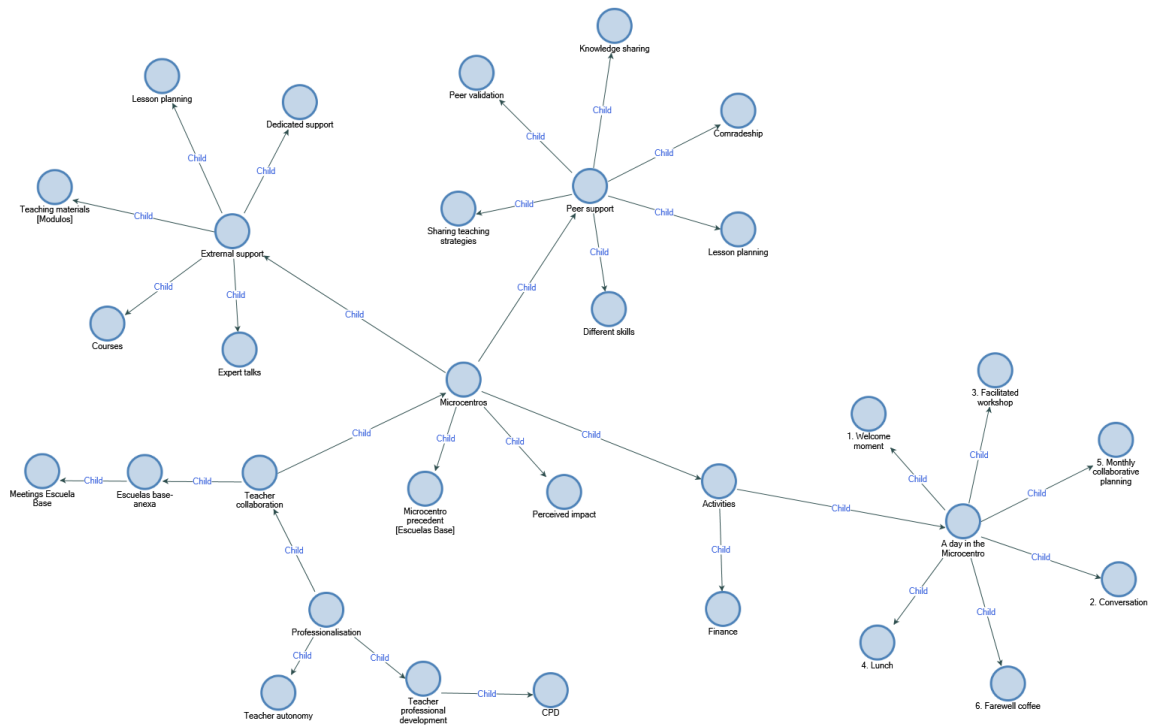
The screenshot shows a software interface with a document on the left and a coding scheme on the right. The document contains text about a school and a teacher's experience. The coding scheme on the right lists various categories such as 'Teacher expectation', 'Professional trajectory', and 'Rural school closure', each with a corresponding colored bar indicating its application to the text.

Nodes			
Name	Sources	References	
Politics (external)	1	2	
Professional trajectory	2	21	
Carlos places	0	0	
1. Graneros anexa - Las Mercedes	1	3	
2. Graneros base	1	1	
3. Pichidegua	1	1	
4. Tuncahue 1	1	1	
5. El Carmen	1	1	
6. Tuncahue 2	1	2	
7. La Leonera	1	1	
Coming back journey	2	5	
José's places	0	0	
1. Doñihue	1	1	
2. Quinta de Tilcoco	1	1	
3. Rancagua	1	1	

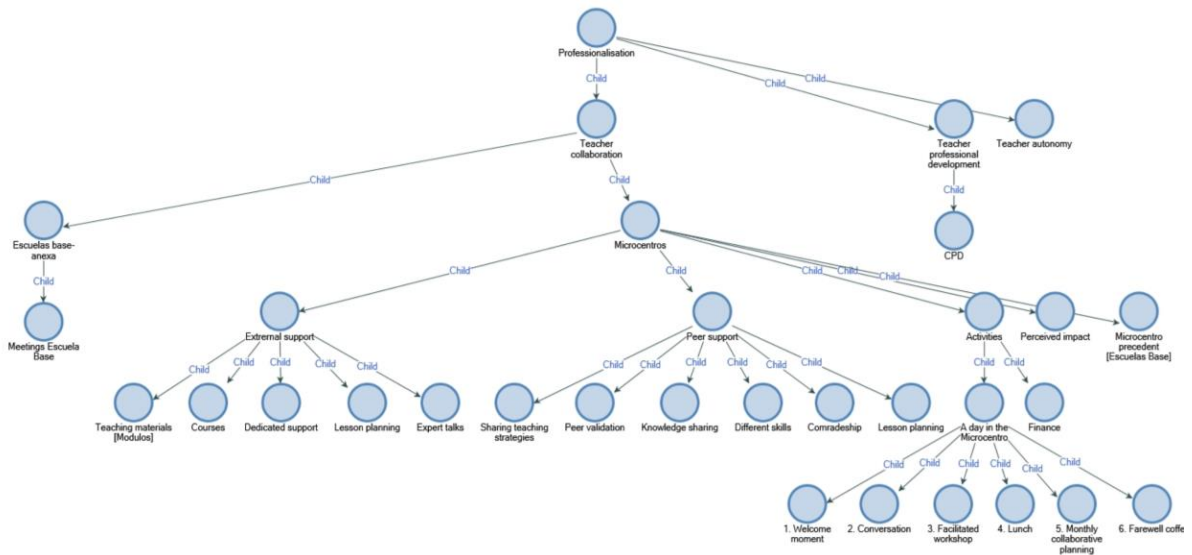


Appendix 15. Cross-case analysis example. Project map – ‘Professionalisation’ node

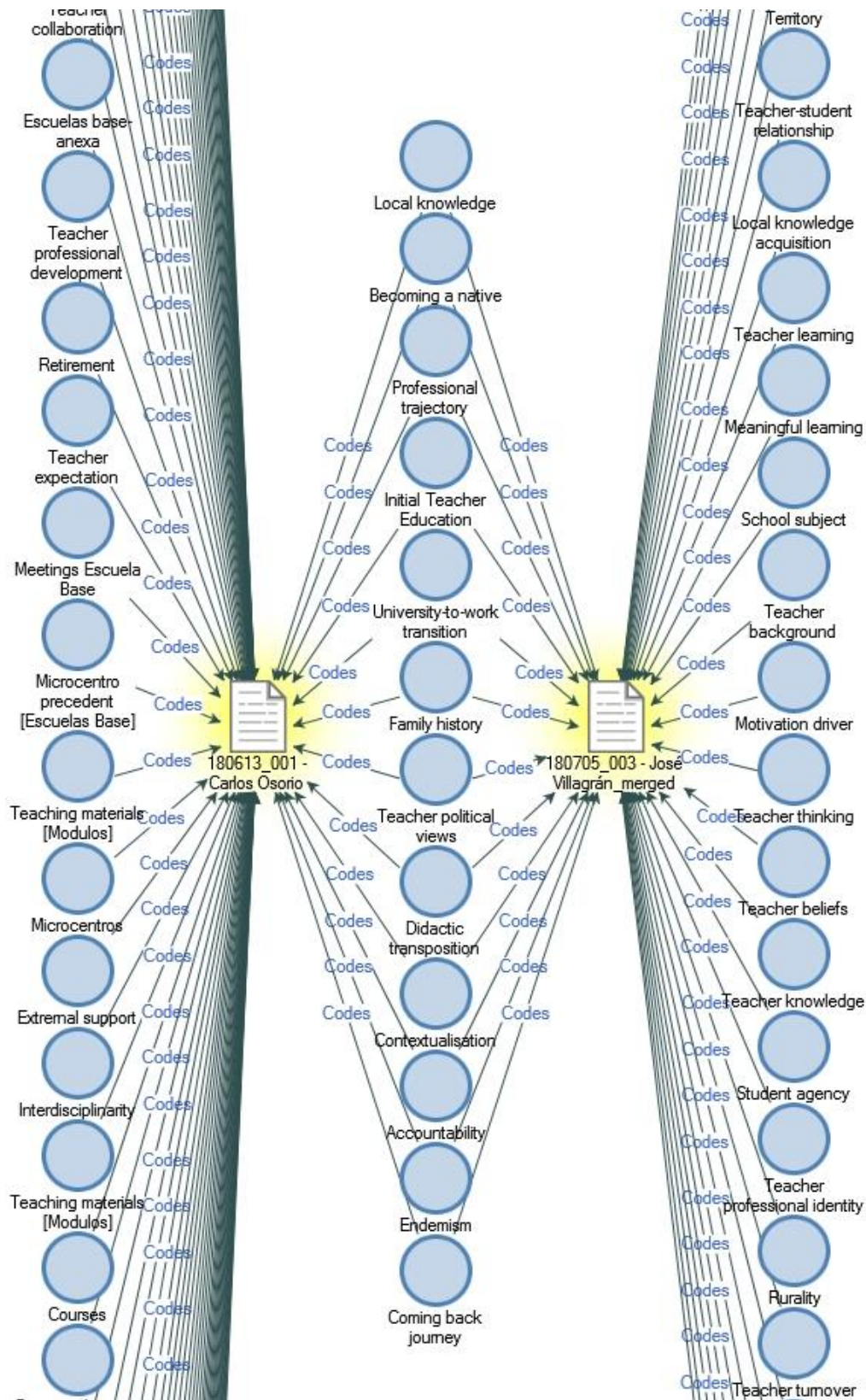
1. Code density: multiple themes.



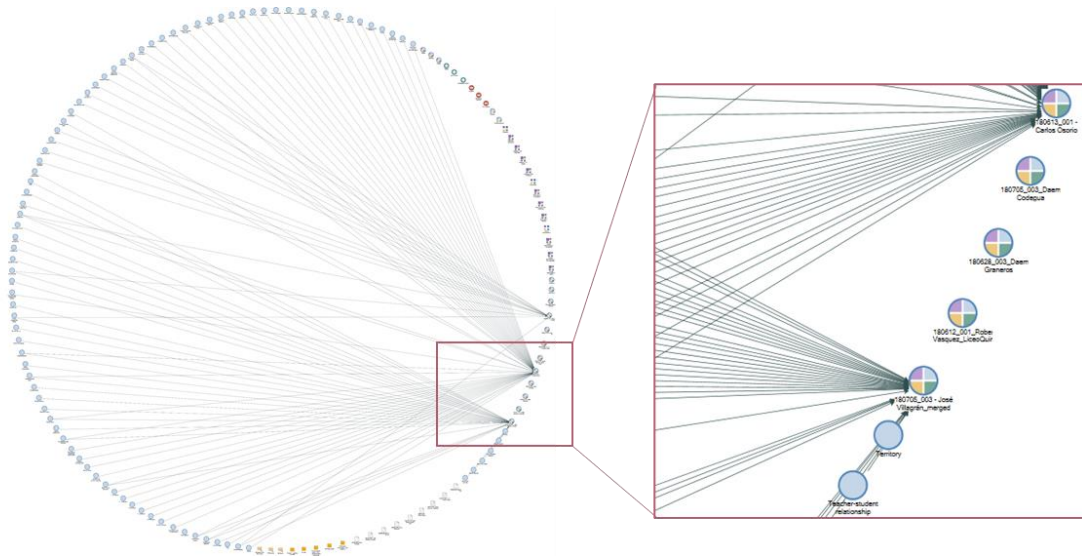
2. Selective coding: code categorisation in theory and data driven theme.



Appendix 16. Cross-case analysis. Comparison diagram between two cases (Carlos and José)



Appendix 17. Cross-case analysis. Nodes Associated items.



Appendix 18. Survey codebook

DIMENSION	SUBDIMENSION	VARIABLE	VARIABLE LABEL	VALUES
BACKGROUND	Teachers' background	BTB1A	Date of birth	Year
		BTB1B	Place of birth	Year
		BTB1C	Gender	[1] Feminine [2] Masculine [3] Other
		BTB2A	Qualification	String
		BTB2B	Qualification title	String
		BTB2C	Awarding body	String
		BTB2D	Year completion of studies	Year
		BTB3A	Work experience	Years
		BTB3B	Work environment (Contract hours)	Number of hours
		BTB3C	Work environment (Teaching hours)	Number of hours
	BTB3D	Work environment (Classes)	Number of levels teaching	
	Teachers' further education	BTFE4A	Master level	[1] Yes [2] No
		BTFE4B	PGDip –Postitulo	[1] Yes [2] No
		BTFE4C	PGCert - Diplomado	[1] Yes [2] No
		BTFE4D	Course CPEIP	[1] Yes [2] No
		BTFE4E	Course SENCE	[1] Yes [2] No
		BTFE4F	Internship	[1] Yes [2] No
		BTFE4G	Other	[1] Yes [2] No
		BEND5A(A1-A5...)	Parents	[1] Yes [2] No

'Endemism': Teachers' mobility regarding their schools' locality	BEND5B	Native (birthplace)	[1] Yes [2] No
	BEND5C	Primary education	[1] Yes [2] No
	BEND5D	Secondary education	[1] Yes [2] No
	BEND5E	Teacher education	[1] Yes [2] No
	BEND5F	Residence	[1] Yes [2] No
	School background	BSCH6A	School type perception
BSCH6B		Currently practicing	[1] Primary [2] Secondary
BSCH6C		School name	String
BSCH6D		School locality	String
BSCH6E		School size Students	Number of students
BSCH6F		School size Teachers	Number of teachers
BSCH6G		School levels	Number of classes
BSCH6H		Non enrolled	School level
School trends	BTRN7A	Non-local intake	1=Strongly disagree 2=Disagree 3=Neither agree or disagree 4= Agree 5=Strongly agree
	BTRN7B	Urban intake	1=Strongly disagree 2=Disagree 3=Neither agree or disagree 4= Agree 5=Strongly agree

	BTRN7C	Increased enrolment	1=Strongly disagree 2=Disagree 3=Neither agree or disagree 4= Agree 5=Strongly agree
	BTRN7D	Rural pedagogy	1=Strongly disagree 2=Disagree 3=Neither agree or disagree 4= Agree 5=Strongly agree
	BTRN7E	Ability to anticipate	1=Strongly disagree 2=Disagree 3=Neither agree or disagree 4= Agree 5=Strongly agree
	BTRN7F	Equal opportunities	1=Strongly disagree 2=Disagree 3=Neither agree or disagree 4= Agree 5=Strongly agree
Students background	BST12A	Legal guardian education	1=None 2=Primary 3=Secondary 4=Incomplete secondary 5=Vocational 6=Professional 7=Postgraduate
	BST13B	Legal guardian occupation 1	Rank 1

	BST13C	Legal guardian occupation 2	Rank 2
	BST13D	Legal guardian occupation 3	Rank 3
Students' community awareness	BSTA14A	Local history	1=Strongly disagree 2=Disagree 3= Agree 4=Strongly agree
	BSTA14B	Family history	1=Strongly disagree 2=Disagree 3= Agree 4=Strongly agree
	BSTA14C	Natural hazards awareness	1=Strongly disagree 2=Disagree 3= Agree 4=Strongly agree
	BSTA14D	Environmental knowledge	1=Strongly disagree 2=Disagree 3= Agree 4=Strongly agree
	BSTA14E	Attitudes towards heritage	1=Strongly disagree 2=Disagree 3= Agree 4=Strongly agree
	BSTA14F	Increased awareness	1=Strongly disagree 2=Disagree 3= Agree 4=Strongly agree
Students' locality	BLOC15A	Landscape changes	1=Strongly disagree 2=Disagree 3= Agree 4=Strongly agree
	BLOC15B	Locality's isolation	1=Strongly disagree 2=Disagree

				3= Agree 4=Strongly agree
		BLOC15C	Locality's environmental vulnerability	1=Strongly disagree 2=Disagree 3= Agree 4=Strongly agree
		BLOC15D	Access to leisure and educational activities	1=Strongly disagree 2=Disagree 3= Agree 4=Strongly agree
		BLOC15E	Students out-migration	1=Strongly disagree 2=Disagree 3= Agree 4=Strongly agree
		BLOC15F	Rural schools' closure	1=Strongly disagree 2=Disagree 3= Agree 4=Strongly agree
TEACHERS PRACTICE	Learning outcomes – conceptual	TPCPT16A	Scope of general knowledge	1= To none or almost none of them 2=To some of them 3=To most of them 4=To all or almost all of them
		TPCPT16B	Local knowledge awareness	1= To none or almost none of them 2=To some of them 3=To most of them 4=To all or almost all of them
		TPCPT16C	Contested local knowledge	1= To none or almost none of them

			2=To some of them 3=To most of them 4=To all or almost all of them
	TPCPT16D	Overarching understanding	1= To none or almost none of them 2=To some of them 3=To most of them 4=To all or almost all of them
	TPCPT16E	Abstract thinking application	1= To none or almost none of them 2=To some of them 3=To most of them 4=To all or almost all of them
Learning outcomes – skills	TPSK17A	Unistructural	1= To none or almost none of them 2=To some of them 3=To most of them 4=To all or almost all of them
	TPSK17B	Multistructural	1= To none or almost none of them 2=To some of them 3=To most of them 4=To all or almost all of them
	TPSK17C	Relational	1= To none or almost none of them 2=To some of them 3=To most of them

			4=To all or almost all of them
	TPSK17D	Extended abstract	1= To none or almost none of them 2=To some of them 3=To most of them 4=To all or almost all of them
Learning outcomes – attitudes	TPAT18A	Curiosity	1= To none or almost none of them 2=To some of them 3=To most of them 4=To all or almost all of them
	TPAT18B	Inquiry	1= To none or almost none of them 2=To some of them 3=To most of them 4=To all or almost all of them
	TPAT18C	Perceptiveness	1= To none or almost none of them 2=To some of them 3=To most of them 4=To all or almost all of them
	TPAT18D	Empathy	1= To none or almost none of them 2=To some of them 3=To most of them 4=To all or almost all of them

	TPAT18E	Observation	1= To none or almost none of them 2=To some of them 3=To most of them 4=To all or almost all of them
	TPAT18F	Collaborative	1= To none or almost none of them 2=To some of them 3=To most of them 4=To all or almost all of them
Rural learning – creative thinking or divergent thinking	TPRUR19A	Creativity	1= To none or almost none of them 2=To some of them 3=To most of them 4=To all or almost all of them
	TPRUR19B	Imaginative	1= To none or almost none of them 2=To some of them 3=To most of them 4=To all or almost all of them
	TPRUR19C	Demonstrative	1= To none or almost none of them 2=To some of them 3=To most of them 4=To all or almost all of them
	TPRUR19D	Openness	1= To none or almost none of them

			2=To some of them 3=To most of them 4=To all or almost all of them
Critical thinking	TPCT20A	Problematize	1= To none or almost none of them 2=To some of them 3=To most of them 4=To all or almost all of them
	TPCT20B	Contextualize	1= To none or almost none of them 2=To some of them 3=To most of them 4=To all or almost all of them
	TPCT20C	Evidence	1= To none or almost none of them 2=To some of them 3=To most of them 4=To all or almost all of them
	TPCT20D	Analyse	1= To none or almost none of them 2=To some of them 3=To most of them 4=To all or almost all of them
	TPCT20E	Interpretation	1= To none or almost none of them 2=To some of them 3=To most of them

			4=To all or almost all of them
Scaffolding	TPSC21A	Local knowledge awareness	1= I couldn't do this 2= I struggle to do this on my own 3= I do this with a bit of effort 4= I do this easily
	TPSC21B	Contested local knowledge	1= I couldn't do this 2= I struggle to do this on my own 3= I do this with a bit of effort 4= I do this easily
	TPSC21C	Overarching understanding	1= I couldn't do this 2= I struggle to do this on my own 3= I do this with a bit of effort 4= I do this easily
	TPSC21D	Critical thinking	1= I couldn't do this 2= I struggle to do this on my own 3= I do this with a bit of effort 4= I do this easily
	TPSC21E	Local to global skills	1= I couldn't do this 2= I struggle to do this on my own 3= I do this with a bit of effort 4= I do this easily

		TPSC21F	Positive attitude towards locality	1= I couldn't do this 2= I struggle to do this on my own 3= I do this with a bit of effort 4= I do this easily
		TPSC21G	Positive attitude towards local environment	1= I couldn't do this 2= I struggle to do this on my own 3= I do this with a bit of effort 4= I do this easily
		TPSC21H	Local to global understanding	1= I couldn't do this 2= I struggle to do this on my own 3= I do this with a bit of effort 4= I do this easily
TEACHERS PROFESSIONAL PRACTICE	Territory	PPTER22A	School context	1=Strongly disagree 2=Disagree 3=Neither agree or disagree 4= Agree 5=Strongly agree
		PPTER22B	Spatial impact of the practice	1=Strongly disagree 2=Disagree 3=Neither agree or disagree 4= Agree 5=Strongly agree
		PPTER22C	Meaningful places	1=Strongly disagree 2=Disagree

			3=Neither agree or disagree 4= Agree 5=Strongly agree
	PPTER22D	People and resources	1=Strongly disagree 2=Disagree 3=Neither agree or disagree 4= Agree 5=Strongly agree
	PPTER22E	Motivation to teach	1=Strongly disagree 2=Disagree 3=Neither agree or disagree 4= Agree 5=Strongly agree
	PPTER22F	Source of knowledge	1=Strongly disagree 2=Disagree 3=Neither agree or disagree 4= Agree 5=Strongly agree
Local knowledge acquisition	PPLOC23A	Native	1=Strongly disagree 2=Disagree 3=Neither agree or disagree 4= Agree 5=Strongly agree
	PPLOC23B	Initial Teacher Education	1=Strongly disagree 2=Disagree 3=Neither agree or disagree

		4= Agree 5=Strongly agree
PPLOC23C	Colleague support	1=Strongly disagree 2=Disagree 3=Neither agree or disagree 4= Agree 5=Strongly agree
PPLOC23D	Students and families	1=Strongly disagree 2=Disagree 3=Neither agree or disagree 4= Agree 5=Strongly agree
PPLOC23E	Subject knowledge	1=Strongly disagree 2=Disagree 3=Neither agree or disagree 4= Agree 5=Strongly agree
PPLOC23F	Observation	1=Strongly disagree 2=Disagree 3=Neither agree or disagree 4= Agree 5=Strongly agree
PPLOC23G	Adaptation	1=Strongly disagree 2=Disagree 3=Neither agree or disagree 4= Agree 5=Strongly agree

Rural experience-based expertise	PPRUR24A	Teacher autonomy	1=Strongly disagree 2=Disagree 3=Neither agree or disagree 4= Agree 5=Strongly agree
	PPRUR24B	Peer support	1=Strongly disagree 2=Disagree 3=Neither agree or disagree 4= Agree 5=Strongly agree
	PPRUR24C	Problem solving	1=Strongly disagree 2=Disagree 3=Neither agree or disagree 4= Agree 5=Strongly agree
	PPRUR24D	Complex teaching methods	1=Strongly disagree 2=Disagree 3=Neither agree or disagree 4= Agree 5=Strongly agree
	PPRUR24E	Composite class advantages	1=Strongly disagree 2=Disagree 3=Neither agree or disagree 4= Agree 5=Strongly agree
	PPRUR24F	Neglected curriculum	1=Strongly disagree 2=Disagree

		3=Neither agree or disagree 4= Agree 5=Strongly agree
PPRUR24G	Curriculum-practice agreement	1=Strongly disagree 2=Disagree 3=Neither agree or disagree 4= Agree 5=Strongly agree
PPRUR24H	Local curriculum consensus	1=Strongly disagree 2=Disagree 3=Neither agree or disagree 4= Agree 5=Strongly agree
PPRUR24I	Local knowledge communication	1=Strongly disagree 2=Disagree 3=Neither agree or disagree 4= Agree 5=Strongly agree
PPRUR24J	Regional centralisation	1=Strongly disagree 2=Disagree 3=Neither agree or disagree 4= Agree 5=Strongly agree
PPRUR24K	Regional educational planning	1=Strongly disagree 2=Disagree 3=Neither agree or disagree

			4= Agree 5=Strongly agree
Networks	PPNET8A	Partners	Open-ended
	PPNET8B	Activity	Open-ended
	PPNET8C	Teacher role	Open-ended
	PPNET8D	Location	Open-ended
	PPNET8E	Date	Open-ended
	PPNET8F	Contact	Open-ended
	PPNET9A	Primary partner	Open-ended
	PPNET9B	Primary partner relationship	Open-ended
	PPNET9BC	Primary partner influence	Open-ended
	PPNET11	Network membership	[1] Microcentro rural [2] Red Maestro de maestros [3] Colegio de profesores [4] Other
Collaboration	PPCO10A	Offer support to teachers	1= I couldn't do this 2= I struggle to do this on my own 3= I do this with a bit of effort 4= I do this easily
	PPCO10B	Interest in local project participation	1= I couldn't do this 2= I struggle to do this on my own 3= I do this with a bit of effort 4= I do this easily
	PPCO10C	Local leadership	1= I couldn't do this 2= I struggle to do this on my own

		3= I do this with a bit of effort 4= I do this easily
PPCO10D	Receive support from teachers	1= I couldn't do this 2= I struggle to do this on my own 3= I do this with a bit of effort 4= I do this easily
PPCO10E	Allocate external support	1= I couldn't do this 2= I struggle to do this on my own 3= I do this with a bit of effort 4= I do this easily
PPCO10F	Allocate local administration support	1= I couldn't do this 2= I struggle to do this on my own 3= I do this with a bit of effort 4= I do this easily
PPCO10G	ITE institution collaboration	1= I couldn't do this 2= I struggle to do this on my own 3= I do this with a bit of effort 4= I do this easily

Exploratory analysis report

Dimension 1: Background

Table 1. Boroughs Cachapoal province

	Frequency	Percent	Valid Percent	Cumulative Percent
1. Codegua	5	5.7	5.7	5.7
2. Coinco	3	3.4	3.4	9.2
3. Coltauco	11	12.6	12.6	21.8
4. Donihue	6	6.9	6.9	28.7
5. Graneros	2	2.3	2.3	31
6. Machali	3	3.4	3.4	34.5
7. Malloa	4	4.6	4.6	39.1
8. Olivar	1	1.1	1.1	40.2
9. Peumo	3	3.4	3.4	43.7
10. Pichidegua	9	10.3	10.3	54
11. Quinta de Tilcoco	3	3.4	3.4	57.5
12. Rancagua	7	8	8	65.5
13. Rengo	9	10.3	10.3	75.9
14. Requinoa	5	5.7	5.7	81.6
15. San Vicente de Tagua Tagua	16	18.4	18.4	100
Total	87	100	100	

Figure 1. Boroughs Cachapoal province



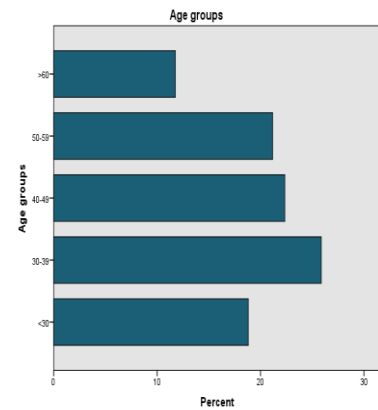
REC: Geographical areas: [1] North/South river divide [2] West river area
 Geographical cluster: [1] North cone, [2] Rancagua-Machali, [3] Coinco-Olivar, [4] Coltauco Donihue, [5] Peumo – Las Cabras, [6] Pichidegua, [7] San Vicente [8] Rengo-Malloa-Quinta [9] Requinoa

1.1. Teachers' background

1.1.1. Age group

Table 2/Figure 2. Teachers' age group

	Frequency	Percent	Valid Percent	Cumulative Percent
<30	16	18.4	18.8	18.8
30-39	22	25.3	25.9	44.7
40-49	19	21.8	22.4	67.1
50-59	18	20.7	21.2	88.2
>60	10	11.5	11.8	100
Total	85	97.7	100	
Missing	2	2.3		
Total	87	100		



1.1.2. Gender

Table 3. Teachers' gender

	Frequency	Percent	Valid Percent
Female	55	63.2	63.2
Male	32	36.8	36.8
Total	87	100	100

1.1.3. Qualification

Table 4. Teachers' qualification

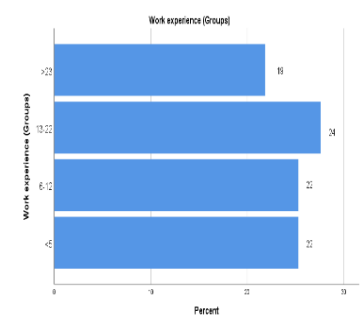
	Frequency	Percent	Valid Percent
Primary teacher	69	79.3	79.3
Secondary teacher	18	20.7	20.7
Total	87	100	100

REC: [1] Type university of origin [2] "Mencion" specialisation.

1.1.4. Work experience

Table 5/Figure 5. Work experience

	Mean	Mode	Minimum	Maximum	Valid N
Work experience (Years)	16	3	1	46	87
Contract hours	39	44	10	44	87
Teaching hours	29	38	0	44	81
Classes	4	4	0	11	87



REC: Teacher attrition.

1.1.5. Teachers' further education

Table 6. Teachers' further education

1.1.6. 'Endemism': Teachers' experiences in the school's locality

Table 7. Teachers' mobility

	Count	Percent
Parents	30	34.50%
Native	27	31.00%
Primary education	26	29.90%
Secondary education	14	16.10%
Teacher education	28	32.20%
Residence	39	45.30%

REC: Teachers' mobility.

1.2. School background

1.2.1. School type perception

Table 8. Type of school according to teachers

	Frequency	Percent	Valid Percent
Urban	10	11.5	11.5
Rural	77	88.5	88.5
Total	87	100	100

1.2.2. School trends

Table 9. School trends

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
Non-local intake	4 4.60%	5 5.70%	10 11.50%	23 26.40%	45 51.70%
Urban intake	11 12.90%	6 7.10%	15 17.60%	20 23.50%	33 38.80%
Increased enrolment	5 5.80%	16 18.60%	15 17.40%	15 17.40%	35 40.70%
Rural pedagogy	4 4.70%	8 9.30%	14 16.30%	23 26.70%	37 43.00%
Ability to anticipate	3 3.60%	4 4.80%	18 21.40%	19 22.60%	40 47.60%
Equal opportunities	0 0.00%	1 1.20%	7 8.20%	21 24.70%	56 65.90%

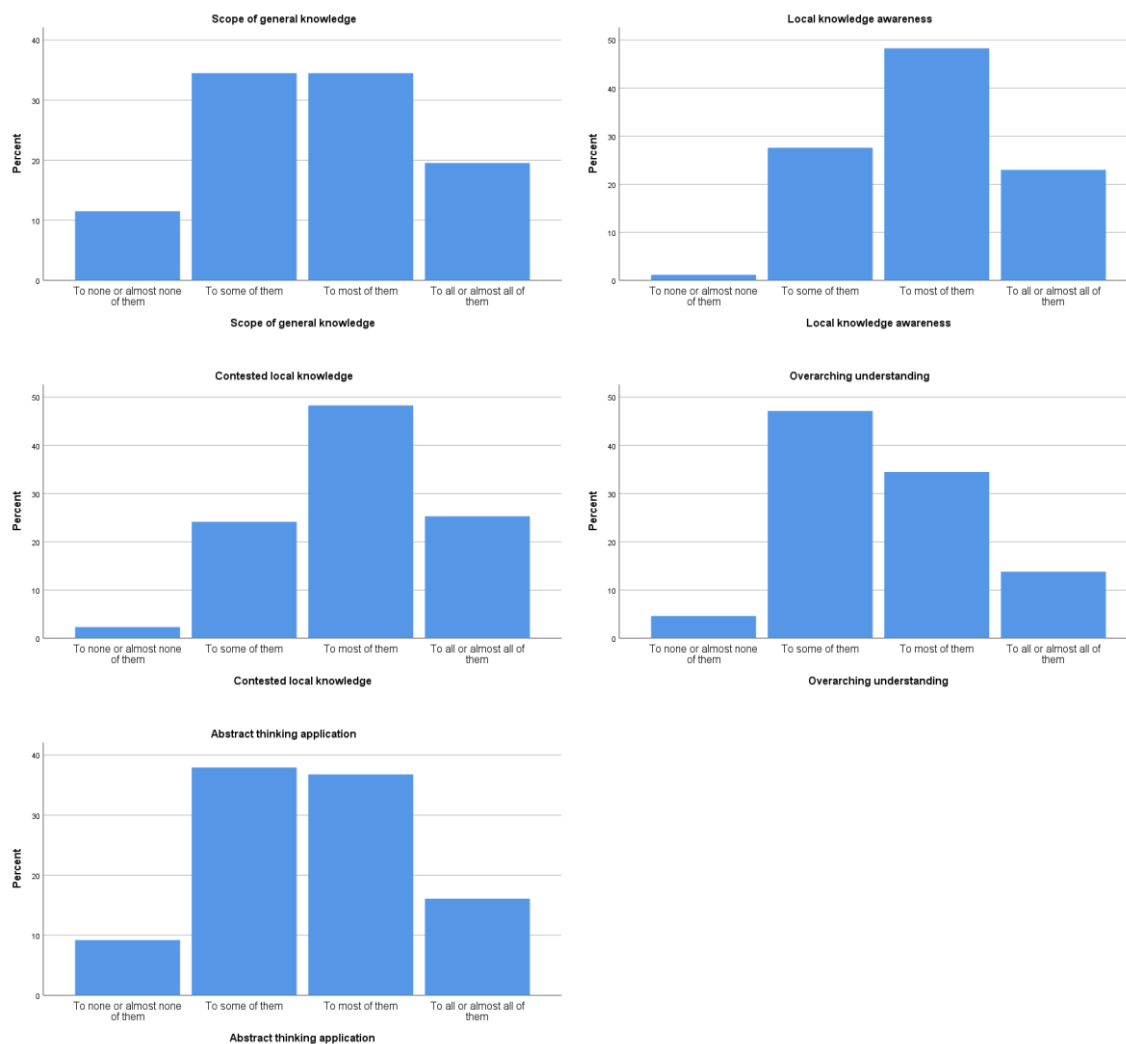
Dimension 2: Teachers practice

2.1. Learning outcomes – conceptual

Table 10. Learning opportunities

	To none or almost none of them	To some of them	To most of them	To all or almost all of them	Total
Scope of general knowledge	10	30	30	17	87
	11.50%	34.50%	34.50%	19.50%	100.00%
Local knowledge awareness	1	24	42	20	87
	1.10%	27.60%	48.30%	23.00%	100.00%
Contested local knowledge	2	21	42	22	87
	2.30%	24.10%	48.30%	25.30%	100.00%
Overarching understanding	4	41	30	12	87
	4.60%	47.10%	34.50%	13.80%	100.00%
Abstract thinking application	8	33	32	14	87
	9.20%	37.90%	36.80%	16.10%	100.00%

Figure 6. Learning opportunities

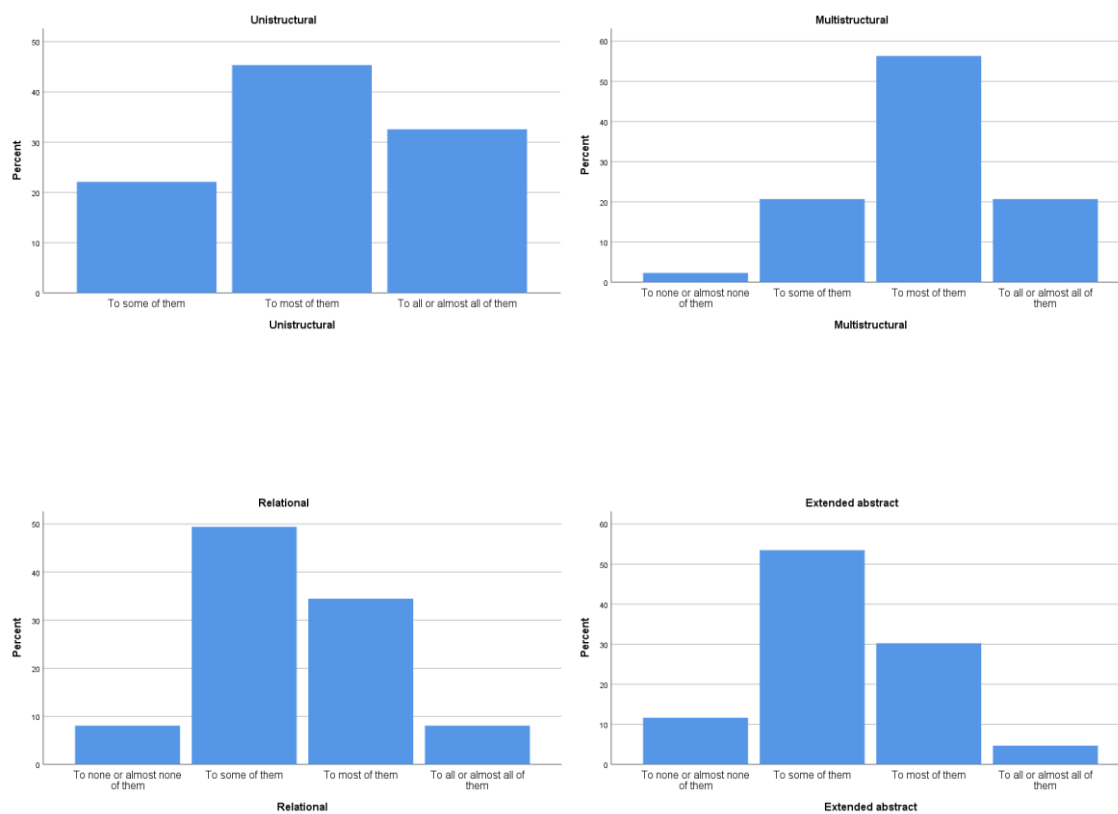


2.2. Learning outcomes – skills

Table 11. Skills

	To none or almost none of them	To some of them	To most of them	To all or almost all of them	Total
Unistructural	0	19	39	28	86
	0.00%	22.10%	45.30%	32.60%	100.00%
Multistructural	2	18	49	18	87
	2.30%	20.70%	56.30%	20.70%	100.00%
Relational	7	43	30	7	87
	8.00%	49.40%	34.50%	8.00%	100.00%
Extended abstract	10	46	26	4	86
	11.60%	53.50%	30.20%	4.70%	100.00%

Figure 7. Learning opportunities - skills

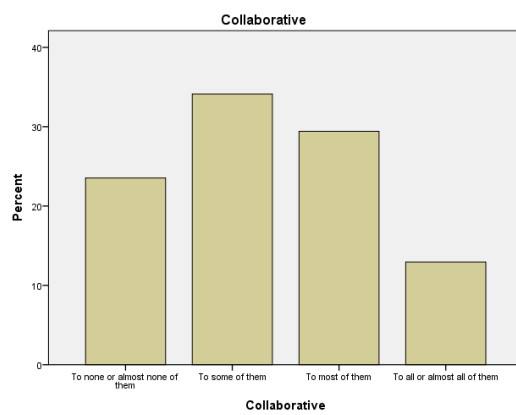
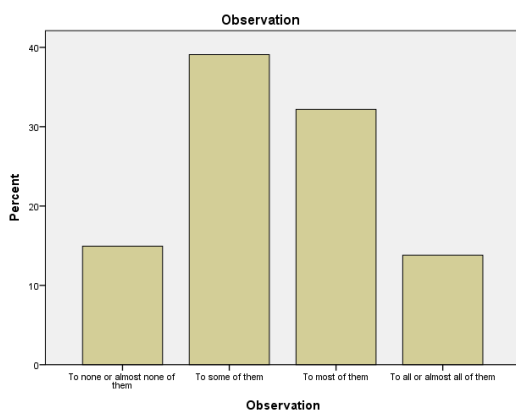
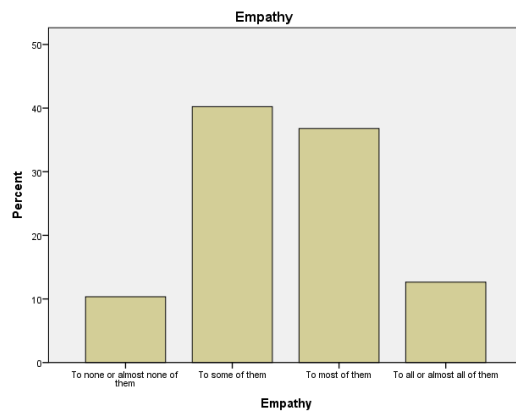
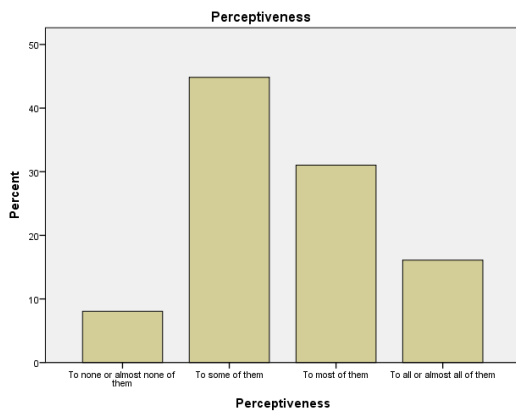
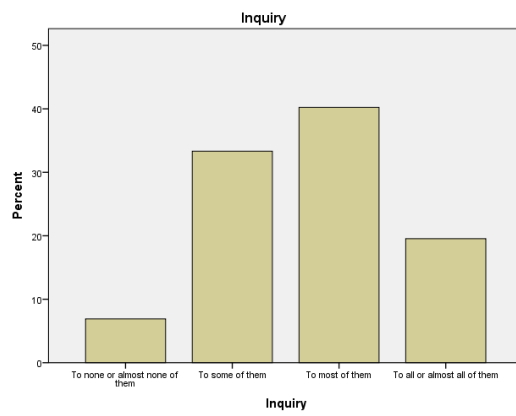
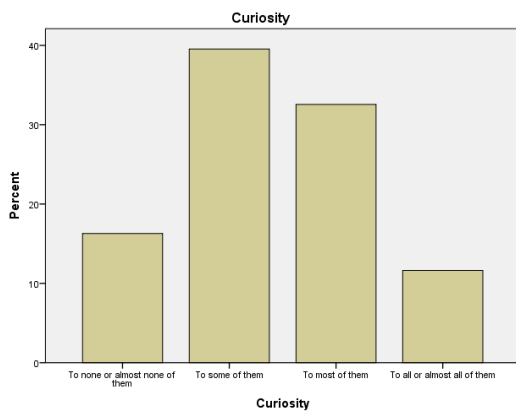


2.3. Learning outcomes – attitudes

Table 12. Attitudes

	To none or almost none of them	To some of them	To most of them	To all or almost all of them	Total
Curiosity	14	34	28	10	86
	16.30%	39.50%	32.60%	11.60%	100.00%
Inquiry	6	29	35	17	87
	6.90%	33.30%	40.20%	19.50%	100.00%
Perceptiveness	7	39	27	14	87
	8.00%	44.80%	31.00%	16.10%	100.00%
Empathy	9	35	32	11	87
	10.30%	40.20%	36.80%	12.60%	100.00%
Observation	13	34	28	12	87
	14.90%	39.10%	32.20%	13.80%	100.00%
Collaborative	20	29	25	11	85
	23.50%	34.10%	29.40%	12.90%	100.00%

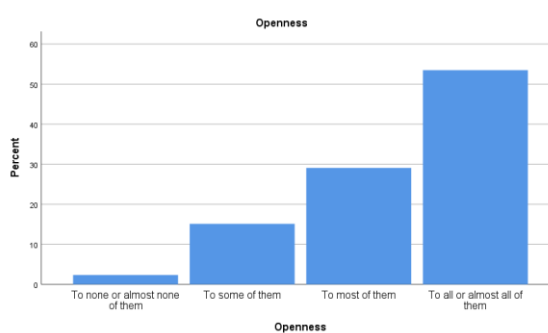
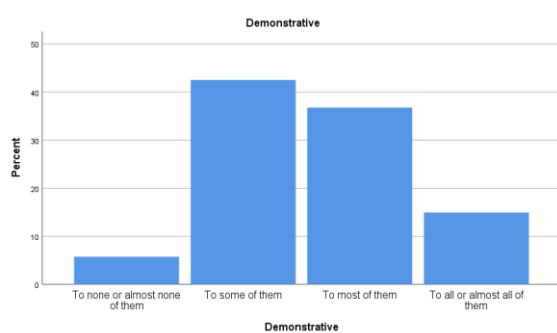
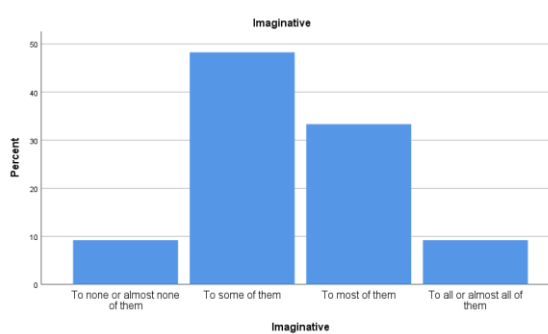
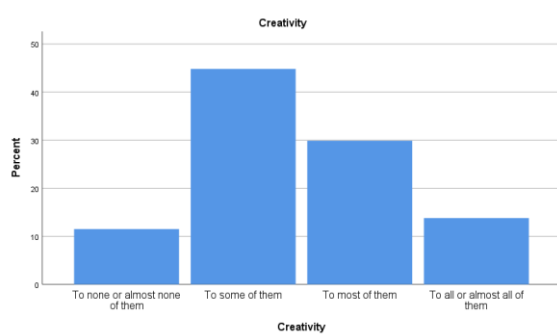
Figure 8. Learning opportunities - Attitudes



2.4. Rural learning – creative thinking or divergent thinking

Table 12. Divergent thinking

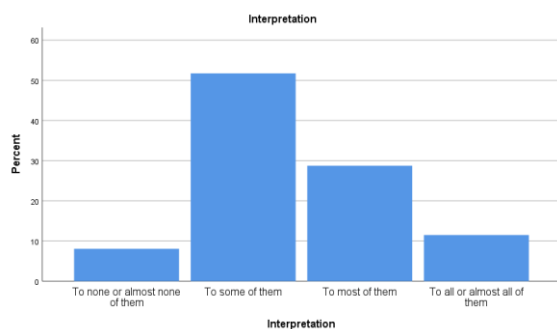
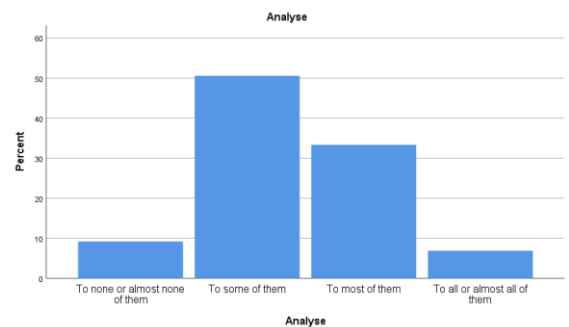
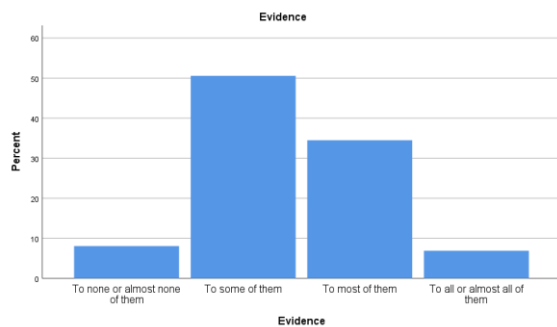
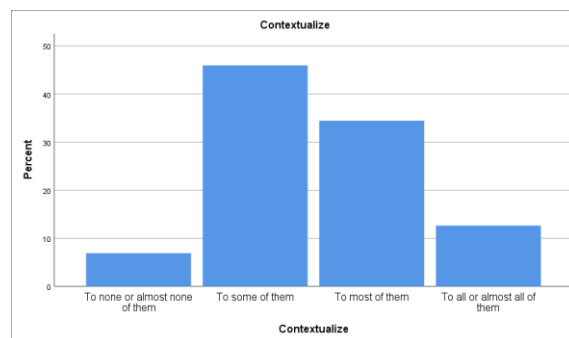
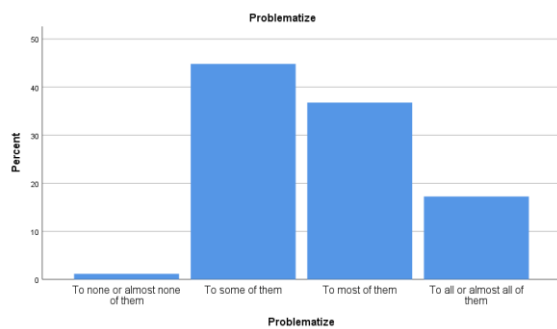
	To none or almost none of them	To some of them	To most of them	To all or almost all of them	Total
Creativity	10 11.50%	39 44.80%	26 29.90%	12 13.80%	87 100.00%
Imaginative	8 9.20%	42 48.30%	29 33.30%	8 9.20%	87 100.00%
Demonstrative	5 5.70%	37 42.50%	32 36.80%	13 14.90%	87 100.00%
Openness	2 2.30%	13 15.10%	25 29.10%	46 53.50%	86 100.00%



2.5. Critical thinking

Table 13. Critical thinking

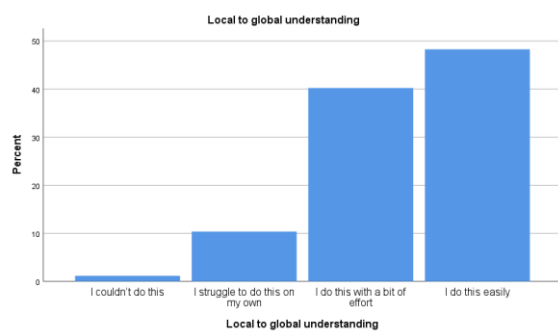
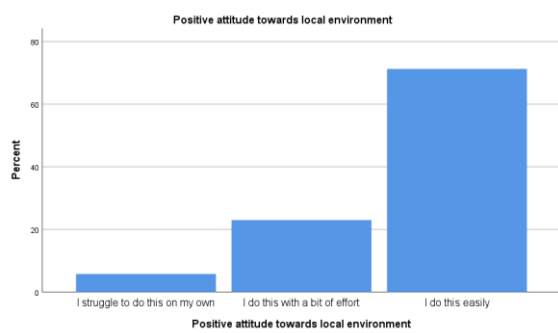
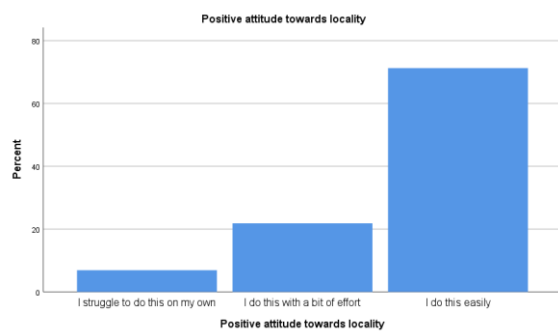
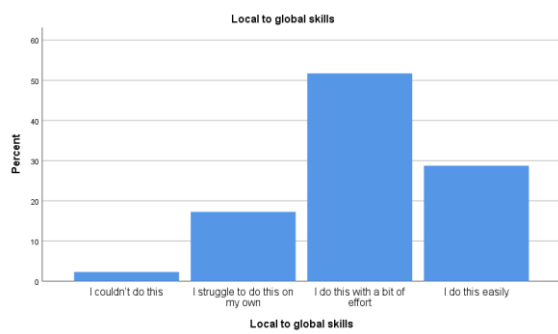
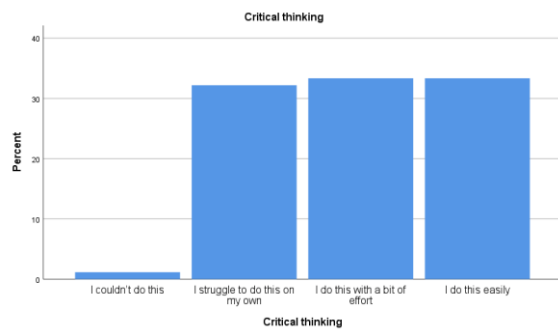
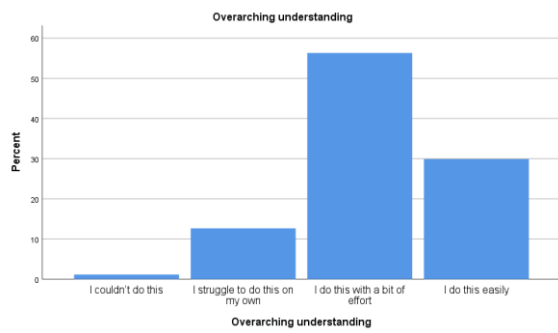
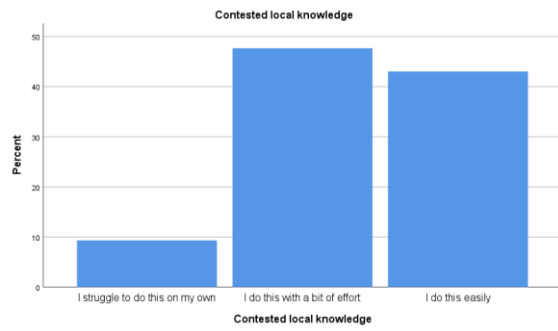
	To none or almost none of them	To some of them	To most of them	To all or almost all of them	Total
Problematize	1 1.10%	39 44.80%	32 36.80%	15 17.20%	87 100.00%
Contextualize	6 6.90%	40 46.00%	30 34.50%	11 12.60%	87 100.00%
Evidence	7 8.00%	44 50.60%	30 34.50%	6 6.90%	87 100.00%
Analyse	8 9.20%	44 50.60%	29 33.30%	6 6.90%	87 100.00%
Interpretation	7 8.00%	45 51.70%	25 28.70%	10 11.50%	87 100.00%



2.6. Scaffolding

Table 14. Self-efficacy

	I couldn't do this	I struggle to do this on my own	I do this with a bit of effort	I do this easily	Total
Local knowledge awareness	2 2.30%	6 7.00%	36 41.90%	42 48.80%	86 100.00%
Contested local knowledge	0 0.00%	8 9.30%	41 47.70%	37 43.00%	86 100.00%
Overarching understanding	1 1.10%	11 12.60%	49 56.30%	26 29.90%	87 100.00%
Critical thinking	1 1.10%	28 32.20%	29 33.30%	29 33.30%	87 100.00%
Local to global skills	2 2.30%	15 17.20%	45 51.70%	25 28.70%	87 100.00%
Positive attitude towards locality	0 0.00%	6 6.90%	19 21.80%	62 71.30%	87 100.00%
Positive attitude towards local environment	0 0.00%	5 5.70%	20 23.00%	62 71.30%	87 100.00%
Local to global understanding	1 1.10%	9 10.30%	35 40.20%	42 48.30%	87 100.00%

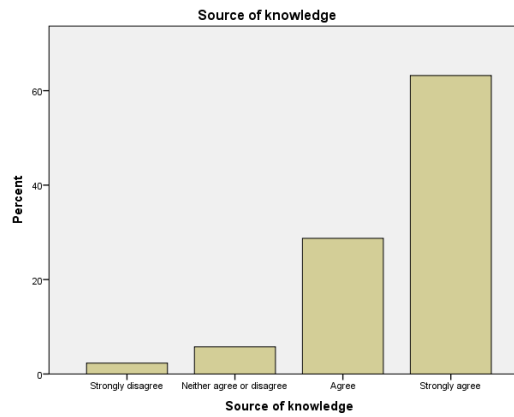
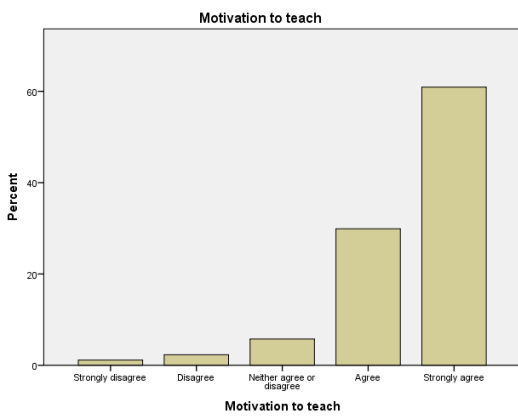
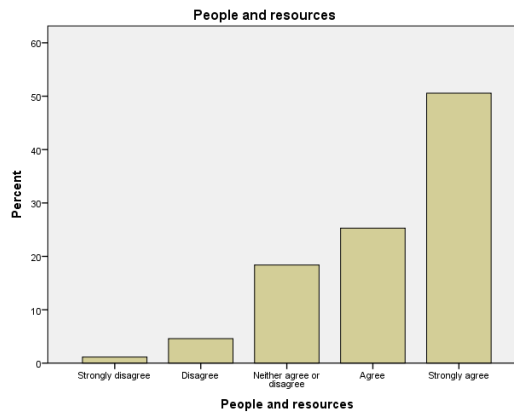
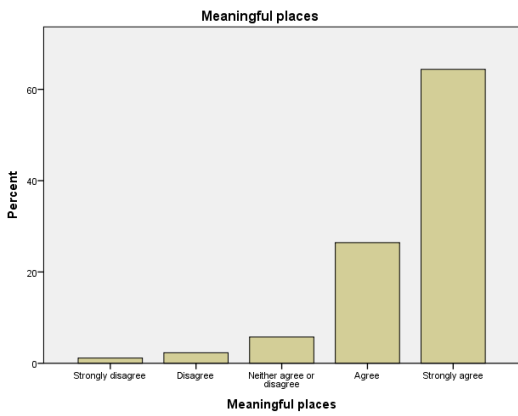
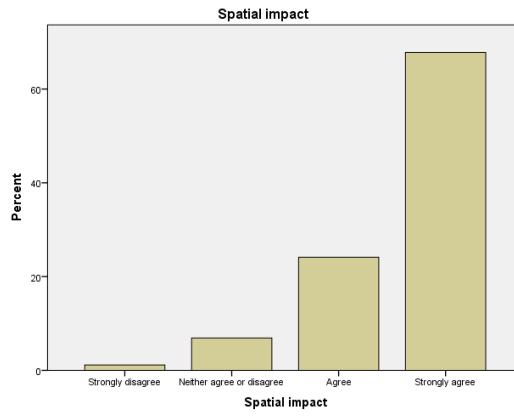
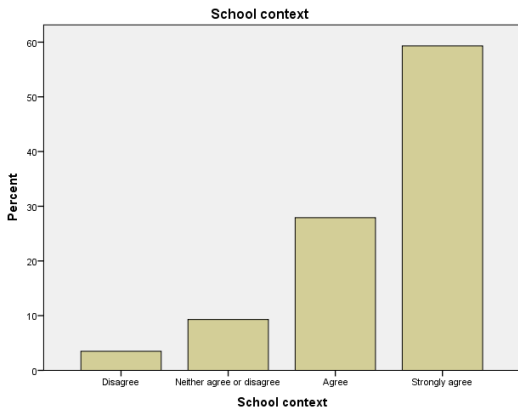


Dimension 3: Teachers' professional practice

3.1. Territory

Table 15. Understanding of the territory

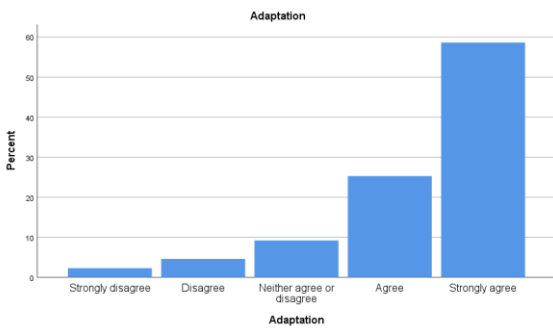
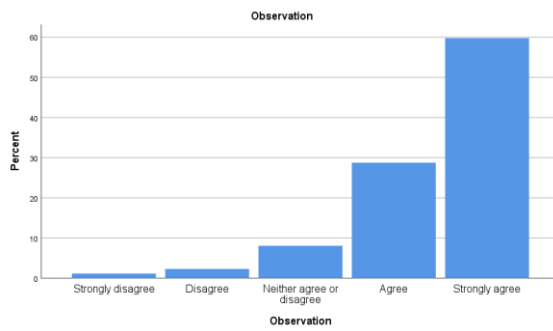
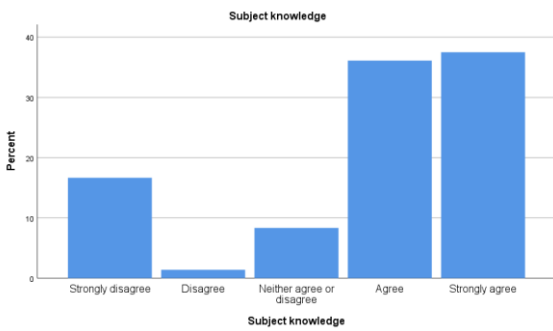
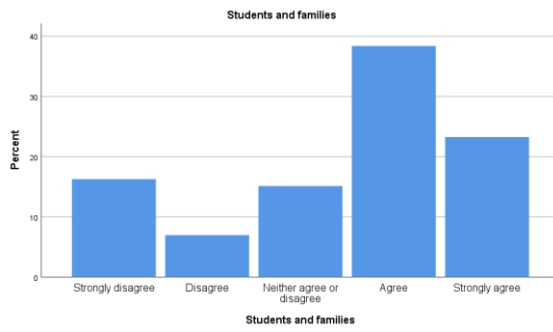
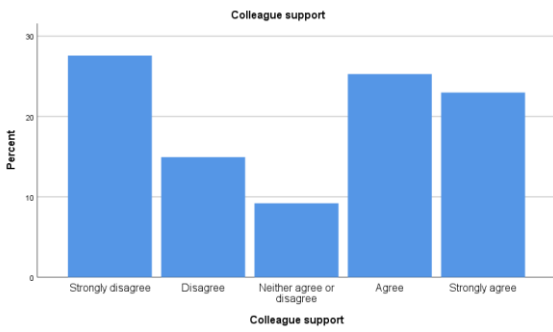
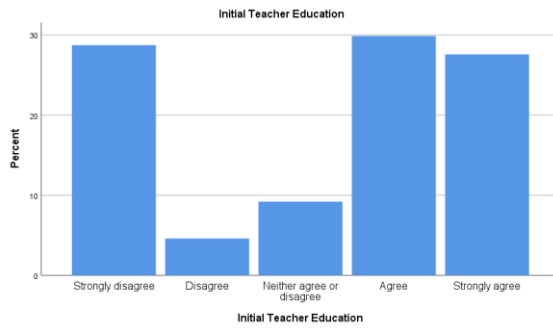
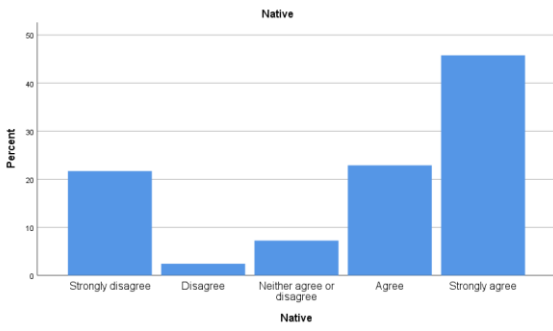
	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree	Total
School context	0 0.00%	3 3.50%	8 9.30%	24 27.90%	51 59.30%	86 100.00%
Spatial impact	1 1.10%	0 0.00%	6 6.90%	21 24.10%	59 67.80%	87 100.00%
Meaningful places	1 1.10%	2 2.30%	5 5.70%	23 26.40%	56 64.40%	87 100.00%
People and resources	1 1.10%	4 4.60%	16 18.40%	22 25.30%	44 50.60%	87 100.00%
Motivation to teach	1 1.10%	2 2.30%	5 5.70%	26 29.90%	53 60.90%	87 100.00%
Source of knowledge	2 2.30%	0 0.00%	5 5.70%	25 28.70%	55 63.20%	87 100.00%



3.2. Local knowledge acquisition

Table 16. Local knowledge

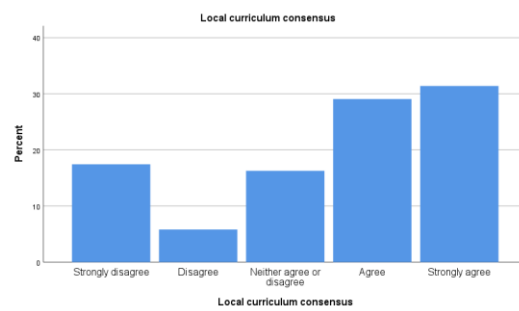
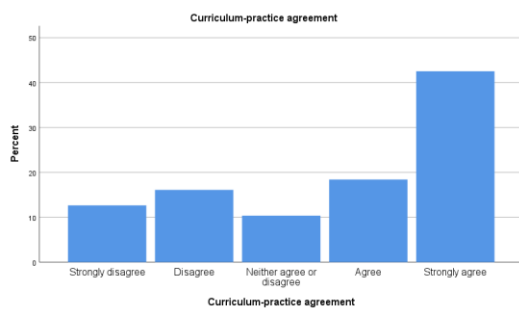
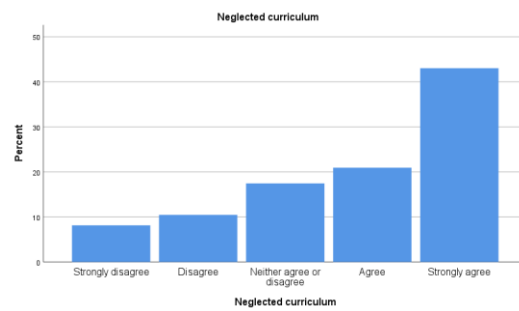
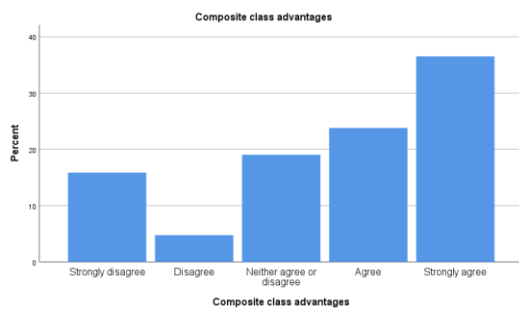
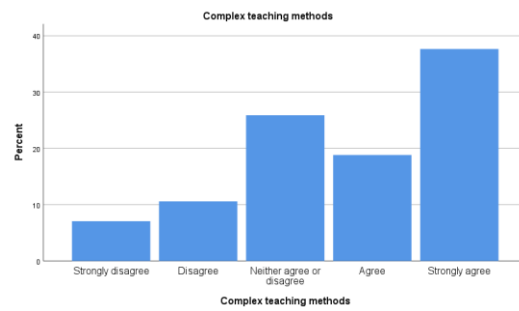
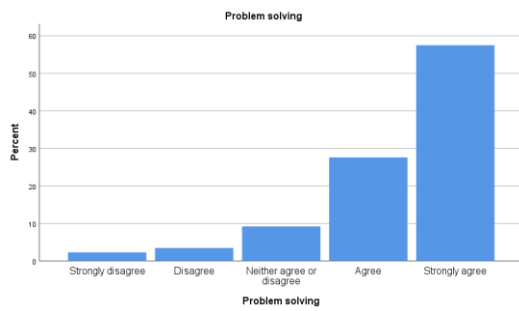
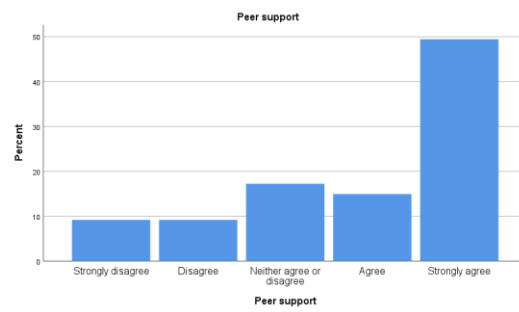
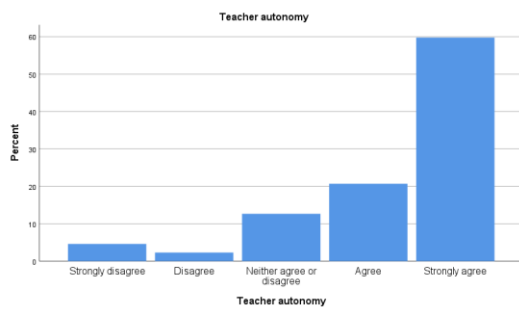
	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree	Total
Native	18	2	6	19	38	83
	21.70%	2.40%	7.20%	22.90%	45.80%	100.00%
Initial Teacher Education	25	4	8	26	24	87
	28.70%	4.60%	9.20%	29.90%	27.60%	100.00%
Colleague support	24	13	8	22	20	87
	27.60%	14.90%	9.20%	25.30%	23.00%	100.00%
Students and families	14	6	13	33	20	86
	16.30%	7.00%	15.10%	38.40%	23.30%	100.00%
Subject knowledge	12	1	6	26	27	72
	16.70%	1.40%	8.30%	36.10%	37.50%	100.00%
Observation	1	2	7	25	52	87
	1.10%	2.30%	8.00%	28.70%	59.80%	100.00%
Adaptation	2	4	8	22	51	87
	2.30%	4.60%	9.20%	25.30%	58.60%	100.00%

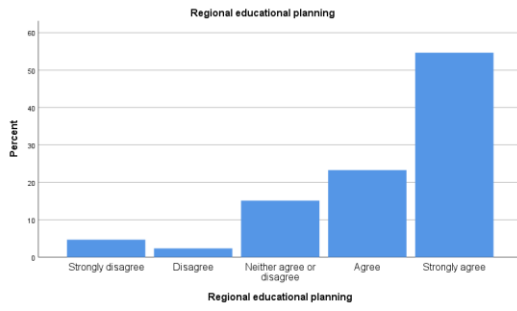
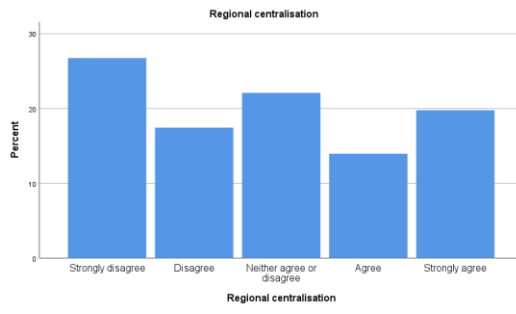
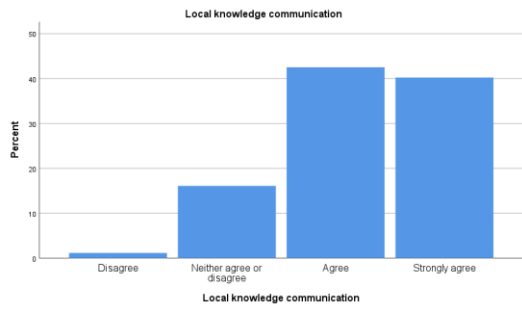


3.3. Rural experience-based expertise

Table 17. Experience-based expertise

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree	Total
Teacher autonomy	4	2	11	18	52	87
	4.60%	2.30%	12.60%	20.70%	59.80%	100.00%
Peer support	8	8	15	13	43	87
	9.20%	9.20%	17.20%	14.90%	49.40%	100.00%
Problem solving	2	3	8	24	50	87
	2.30%	3.40%	9.20%	27.60%	57.50%	100.00%
Complex teaching methods	6	9	22	16	32	85
	7.10%	10.60%	25.90%	18.80%	37.60%	100.00%
Composite class advantages	10	3	12	15	23	63
	15.90%	4.80%	19.00%	23.80%	36.50%	100.00%
Neglected curriculum	7	9	15	18	37	86
	8.10%	10.50%	17.40%	20.90%	43.00%	100.00%
Curriculum-practice agreement	11	14	9	16	37	87
	12.60%	16.10%	10.30%	18.40%	42.50%	100.00%
Local curriculum consensus	15	5	14	25	27	86
	17.40%	5.80%	16.30%	29.10%	31.40%	100.00%
Local knowledge communication	0	1	14	37	35	87
	0.00%	1.10%	16.10%	42.50%	40.20%	100.00%
Regional centralisation	23	15	19	12	17	86
	26.70%	17.40%	22.10%	14.00%	19.80%	100.00%
Regional educational planning	4	2	13	20	47	86
	4.70%	2.30%	15.10%	23.30%	54.70%	100.00%





Appendix 20. Teachers' professional practice – Exploratory analysis

	N		Mean	Std. Deviation	Variance	Median	IQR	
	Valid	Missing						
Scaffolding	Local knowledge awareness	86	1	3.37	0.72	0.519	4	1
	Contested local knowledge	86	1	3.34	0.644	0.414	4	1
	Overarching understanding	87	0	3.15	0.674	0.454	3	1
	Critical thinking	87	0	2.99	0.842	0.709	3	2
	Local to global skills	87	0	3.07	0.744	0.553	3	1
	Positive attitude towards locality	87	0	3.64	0.61	0.372	4	0
	Positive attitude towards local environment	87	0	3.66	0.587	0.345	4	0
	Local to global understanding	87	0	3.36	0.715	0.511	4	1
Territory	School context	86	1	4.43	0.805	0.648	5	1
	Spatial impact	87	0	4.57	0.725	0.526	5	1
	Meaningful places	87	0	4.51	0.805	0.648	5	1
	People and resources	87	0	4.2	0.975	0.95	5	1
	Motivation to teach	87	0	4.47	0.805	0.647	5	1
	Source of knowledge	87	0	4.51	0.805	0.648	5	1
Local knowledge acquisition	Native	83	4	3.69	1.584	2.51	4	2
	Initial Teacher Education	87	0	3.23	1.605	2.574	4	3
	Colleague support	87	0	3.01	1.566	2.453	4	3
	Students and families	86	1	3.45	1.36	1.851	4	2
	Subject knowledge	72	15	3.76	1.409	1.986	4	2
	Observation	87	0	4.44	0.831	0.691	5	1
	Adaptation	87	0	4.33	0.984	0.969	5	1
Rural experience based expertise	Teacher autonomy	87	0	4.29	1.077	1.161	5	1
	Peer support	87	0	3.86	1.365	1.864	4	2
	Problem solving	87	0	4.34	0.95	0.903	5	1
	Complex teaching methods	85	2	3.69	1.273	1.62	4	2
	Composite class advantages	63	24	3.6	1.432	2.05	4	2
	Neglected curriculum	86	1	3.8	1.318	1.737	4	2
	Curriculum-practice agreement	87	0	3.62	1.48	2.192	4	3
	Local curriculum consensus	86	1	3.51	1.437	2.065	4	2
	Local knowledge communication	87	0	4.22	0.754	0.568	4	1
	Regional centralisation	86	1	2.83	1.473	2.169	3	2
Regional educational planning	86	1	4.21	1.086	1.179	5	1	

Appendix 21. Teachers' professional practice – Case teachers' exploratory analysis

	Province		Cases						
	Mean	Std. Dev.	Carlos		Catherine		José		G
			Individual	Group	Individual	Group	Individual	Group	
Local knowledge awareness	3.37	0.72	4 ▲	48.8%	4 ▲	48.84%	3 ▼	4	
Contested local knowledge	3.34	0.644	4 ▲	43.0%	4 ▲	43.0%	3 ▼	4	
Overarching understanding	3.15	0.674	2 ▼	12.6%	4 ▲	29.9%	4 ▲	2	
Critical thinking	2.99	0.842	2 ▼	32.2%	3 ▲	33.3%	4 ▲	3	
Local to global skills	3.07	0.744	2 ▼	17.2%	3 ▼	51.7%	3 ▼	5	
Positive attitude towards locality	3.64	0.61	4 ▲	71.3%	4 ▲	71.3%	4 ▲	7	
Positive attitude towards local environment	3.66	0.587	4 ▲	71.3%	4 ▲	71.3%	4 ▲	7	
Local to global understanding	3.36	0.715	4 ▲	48.3%	4 ▲	48.3%	4 ▲	4	
School context	4.43	0.805	5 ▲	59.3%	5 ▲	59.3%	4 ▼	2	
Spatial impact	4.57	0.725	5 ▲	67.8%	5 ▲	67.8%	5 ▲	6	
Meaningful places	4.51	0.805	5 ▲	64.4%	5 ▲	64.4%	5 ▲	6	
People and resources	4.2	0.975	5 ▲	50.6%	5 ▲	50.6%	5 ▲	5	
Motivation to teach	4.47	0.805	5 ▲	60.9%	5 ▲	60.9%	5 ▲	6	
Source of knowledge	4.51	0.805	5 ▲	63.2%	5 ▲	63.2%	5 ▲	6	
Native	3.69	1.584	5 ▲	45.8%	5 ▲	45.8%	5 ▲	4	
Initial Teacher Education	3.23	1.605	5 ▲	27.6%	1 ▼	28.7%	1 ▼	2	
Colleague support	3.01	1.566	5 ▲	23.0%	4 ▲	25.3%	2 ▼	1	
Students and families	3.45	1.36	5 ▲	23.3%	5 ▲	23.3%	5 ▲	2	
Subject knowledge	3.76	1.409	5 ▲	37.5%	5 ▲	37.5%	5 ▲	3	
Observation	4.44	0.831	5 ▲	59.8%	5 ▲	59.8%	5 ▲	5	
Adaptation	4.33	0.984	5 ▲	58.6%	5 ▲	58.6%	4 ▼	2	
Teacher autonomy	4.29	1.077	5 ▲	59.8%	5 ▲	59.8%	1 ▼		
Peer support	3.86	1.365	5 ▲	49.4%	4 ▲	14.9%	4 ▲	1	
Problem solving	4.34	0.95	5 ▲	57.5%	4 ▼	27.6%	5 ▲	5	
Complex teaching methods	3.69	1.273	5 ▲	37.6%	5 ▲	37.6%	4 ▲	1	
Composite class advantages	3.6	1.432	5 ▲	36.5%	5 ▲	36.5%	NA		
Neglected curriculum	3.8	1.318	5 ▲	43.0%	5 ▲	43.0%	5 ▲	4	
Curriculum-practice agreement	3.62	1.48	5 ▲	42.5%	4 ▲	18.4%	4 ▲	1	
Local curriculum consensus	3.51	1.437	5 ▲	31.4%	5 ▲	31.4%	3 ▼	1	
Local knowledge communication	4.22	0.754	5 ▲	40.2%	5 ▲	40.2%	5 ▲	4	
Regional centralisation	2.83	1.473	5 ▲	19.8%	5 ▲	19.8%	4 ▲	1	
Regional educational planning	4.21	1.086	5 ▲	54.7%	5 ▲	54.7%	5 ▲	5	

Appendix 22. Appendix 1. Teacher network demographics

		Age groups									
		<30		30-39		40-49		50-59		>60	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Network size grouped	0	4	20.0%	6	30.0%	3	15.0%	3	15.0%	4	20.0%
	1-2	6	22.2%	7	25.9%	7	25.9%	5	18.5%	2	7.4%
	3-4	4	16.0%	8	32.0%	5	20.0%	5	20.0%	3	12.0%
	5+	2	15.4%	1	7.7%	4	30.8%	5	38.5%	1	7.7%

		Gender			
		Female		Male	
		Count	Row N %	Count	Row N %
Network size grouped	0	15	71.4%	6	28.6%
	1-2	17	63.0%	10	37.0%
	3-4	15	60.0%	10	40.0%
	5+	8	57.1%	6	42.9%

		Qualification			
		Primary teacher		Secondary teacher	
		Count	Row N %	Count	Row N %
Network size grouped	0	19	90.5%	2	9.5%
	1-2	20	74.1%	7	25.9%
	3-4	18	72.0%	7	28.0%
	5+	12	85.7%	2	14.3%

		Work experience (Groups)							
		<5		6-12		13-22		>23	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Network size grouped	0	6	28.6%	6	28.6%	4	19.0%	5	23.8%
	1-2	8	29.6%	7	25.9%	7	25.9%	5	18.5%
	3-4	6	24.0%	7	28.0%	7	28.0%	5	20.0%
	5+	2	14.3%	2	14.3%	6	42.9%	4	28.6%

		Contract hours	Teaching hours	Classes	School size Students	School size Teachers
		Mean	Mean	Mean	Mean	Mean
Network size grouped	0	39	27	4	159	13
	1-2	38	32	5	140	12
	3-4	39	30	4	148	13
	5+	38	25	3	161	16

		Residence			
		No		Yes	
		Count	Row N %	Count	Row N %
Network size grouped	0	7	35.0%	13	65.0%
	1-2	15	55.6%	12	44.4%
	3-4	16	64.0%	9	36.0%
	5+	9	64.3%	5	35.7%

Gender	Age group	Network size						
		0	1	2	3	4	5	6
Female	<30	2	2	0	0	0	0	0
		14.3%	18.2%	0.0%	0.0%	0.0%	0.0%	0.0%
	30-39	6	2	3	5	1	0	0
		42.9%	18.2%	50.0%	45.5%	25.0%	0.0%	0.0%
	40-49	2	4	2	2	2	3	1
		14.3%	36.4%	33.3%	18.2%	50.0%	60.0%	50.0%
50-59	1	3	1	2	1	1	1	
	7.1%	27.3%	16.7%	18.2%	25.0%	20.0%	50.0%	
>60	3	0	0	2	0	1	0	
	21.4%	0.0%	0.0%	18.2%	0.0%	20.0%	0.0%	
		100%	100%	100%	100%	100%	100%	
Male	<30	2	3	1	4	0	1	1
		33.3%	37.5%	50.0%	57.1%	0.0%	33.3%	33.3%
	30-39	0	2	0	2	0	1	0
		0.0%	25.0%	0.0%	28.6%	0.0%	33.3%	0.0%
	40-49	1	1	0	0	1	0	0
		16.7%	12.5%	0.0%	0.0%	33.3%	0.0%	0.0%
50-59	2	0	1	1	1	1	2	
	33.3%	0.0%	50.0%	14.3%	33.3%	33.3%	66.7%	
>60	1	2	0	0	1	0	0	
	16.7%	25.0%	0.0%	0.0%	33.3%	0.0%	0.0%	
		100%	100%	100%	100%	100%	100%	

Appendix 23. Province teachers' demographics

Age groups

	Frequency	Percent	Valid Percent	Cumulative Percent
	<30	16	18.4	18.8
	30-39	22	25.3	44.7
Valid	40-49	19	21.8	67.1
	50-59	18	20.7	88.2
	>60	10	11.5	100.0
	Total	85	97.7	100.0
Missing	System	2	2.3	
	Total	87	100.0	

Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
	Female	55	63.2	63.2
Valid	Male	32	36.8	100.0
	Total	87	100.0	100.0

Qualification

	Frequency	Percent	Valid Percent	Cumulative Percent
	Primary teacher	69	79.3	79.3
Valid	Secondary teacher	18	20.7	100.0
	Total	87	100.0	100.0

Work experience (Groups)

	Frequency	Percent	Valid Percent	Cumulative Percent
	<5	22	25.3	25.3
	6-12	22	25.3	50.6
Valid	13-22	24	27.6	78.2
	>23	19	21.8	100.0
	Total	87	100.0	100.0

Residence

		Frequency	Percent	Valid Percent	Cumulative Percent
	No	47	54.0	54.7	54.7
Valid	Yes	39	44.8	45.3	100.0
	Total	86	98.9	100.0	
Missing	.	1	1.1		
	Total	87	100.0		

Appendix 24. Organisations and public bodies operating in the province.

Type	Organisation category	Organisation	Number of organisations
Local governance	1 Local public services	Municipalidad [ODP, Medioambiente] (Municipality)	4
		Bomberos (Firefighters)	
		Junaeb (School aid board)	
		DAEM (Education Local Authority)	
	2 Local public services (Healthcare)	Cesfam/Cecosf/Hospital (General practitioner)	1
	3 Local public services (Law enforcement and security)	Carabineros (National police)	4
		PDI (Civilian police)	
		Gendarmeria (Prison guards)	
	4 Environmental public body	Conaf (National Forest Corporation)	1
	5 Local programmes	Sembrando Futuro	5
Red Comunal (Juvenil, Proyecto Integración, Orquesta Juvenil)			
Red de Inglés (TESOL Network)			
Red de Ciencias (Science Education Network)			
Éxito Escolar			
Education ecosystem	6 Teacher-led	Colegas en otras escuelas (Teachers from other schools)	7
		Grupo para portafolio docente (Teacher assessment support group)	
		Encuentro de profesores de Historia (Teacher conference)	
		Departamento de Historia (Subject department)	
		Instituto O'Higgins (Local school)	
		Colegio de Profesores (Teacher Union)	
	7 Universities and CPD	Universidades (Arpa Programme UChile, Undergraduate dissertation)	3
	Investigador/Academico/Experto (Researchers)		
	CPEIP (Centre for Improvement, Experimentation and Pedagogical Research)		
	8 Private education entities	CPECH (HE preparation)	3
Conectate Global			
Acciona			
9 Childcare	Jardin infantil (Nursery)	2	
	Hogar de Menores (Residential care)		
Nationwide institutions and interest groups	10 Foundations and charities	Servicio País - Fundación Superación de la Pobreza (Charitable Foundation)	9
		Fundación Oportunidad (Charitable Foundation)	
		Fundación Pro-O'Higgins (Charitable Foundation)	
		Fundación Futuro (Charitable Foundation)	
		Fundación Chile (Charitable Foundation)	
		Fundación Un Buen Comienzo (Charitable Foundation)	
		Fundación Sara Ramier (Charitable Foundation)	
		Congregación Teresiana (Religious Catholic congregation)	
	Asociación Chilena de Seguridad (Chilean Safety Association)		
	11 Public sector and nationwide social programmes	Sernageomin (National Geological and Mining Service)	9
Simce (Chilean national learning outcome assessment system) - Agencia de Calidad de la Educación			

		Programa Contigo Aprendo - Ministry of Education	
		Consejo de la Cultura y las Artes (Arts council)	
		FPA (Environmental conservation Grant) - Ministerio del MedioAmbiente	
		Senda (Drug prevention programme) - Ministerio del Interior y Seguridad Pública	
		Sename (National Service for Minors) - Ministerio de Justicia y Derechos Humanos	
		Explora (Science and Technology outreach programme)	
		Fosis (Solidarity and Social Investment Fund)	
Culture and leisure	12 Museums and culture	Canil (Animal shelter)	6
		Zoo (Buinzoo, Metropolitano, Safari Rancagua)	
		Museo Interactivo Mirador (Museum)	
		Corporación San Vicente (Arts Council)	
		Museo de Rancagua (Museum)	
		Museo Colchagua (Museum)	
Private sector	13 Private sector and finance	Banco Central (Central bank)	6
		Banco Santander-Zurich (Bank)	
		Falabella (Retail company)	
		Supermarket (Lider)	
		Direct TV (Cable TV)	
		Caja de Compensación Los Andes (Social Security entity)	
	14 Private sector (on-site)	Agrosuper (Meat product manufacturing company)	8
		Fundo (Agricultural estate)	
		Codelco [Comité Santa María] (State owned mining company)	
		Pacific Hidro (Power Company)	
	Santa Emiliana (Winemakers)		
	Viña Valle Secreto (Winemakers)		
	Frigorífico Las Petacas (Fruit packing and cold storage)		
	Monsanto		
Civil society	15 Grassroots organisations and civil society	Organizaciones comunitarias (Grassroots organisations)	13
		Apoderados (Parents association and legal guardians)	
		Campaign (Desafío Levantemos Chile)	
		Biblioteca (Library)	
		Radio	
		Librería Queleo Rancagua (Local bookshop)	
		Scouts	
		Club deportivo (Football Club)	
		APR (Rural Drinking Water)	
		Comité de Navidad (Christmas committee)	
		Circulo Social Sewell (Heritage association)	
		Club del adulto mayor (Senior Club)	
		Rotary Club	
		16 Individuals and neighbours	Individuos y vecinos (Individuals and neighbours)
	17 Politicians	Autoridad provincial (Provincial Authority)	3
		Congreso (Parliament)	
		Político local (Local politician)	

Appendix 25.Organisation categories by activities performed with teachers

Organisation category	Interaction type																							
	Talks		Field trip		Project		Teacher training		Partnership		Routine procedure		Programme implementation		Workshop and learning activities		Leisure and social activities		Coordination		Private charity, CSR, donations and support		Total	
	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %
Municipalities	9	36.0%	2	8.0%	1	4.0%	5	20.0%	1	4.0%	0	0.0%	4	16.0%	2	8.0%	1	4.0%	0	0.0%	0	0.0%	25	
Healthcare	13	68.4%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	5	26.3%	0	0.0%	1	5.3%	0	0.0%	0	0.0%	0	0.0%	19	
Law enforcement and security	14	73.7%	1	5.3%	0	0.0%	0	0.0%	1	5.3%	2	10.5%	0	0.0%	0	0.0%	1	5.3%	0	0.0%	0	0.0%	19	
Environmental public body	2	28.6%	0	0.0%	2	28.6%	0	0.0%	2	28.6%	0	0.0%	1	14.3%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	7	
Local programmes	0	0.0%	0	0.0%	3	33.3%	2	22.2%	0	0.0%	0	0.0%	1	11.1%	0	0.0%	0	0.0%	3	33.3%	0	0.0%	9	
Teachers	1	5.9%	0	0.0%	3	17.6%	3	17.6%	1	5.9%	0	0.0%	0	0.0%	1	5.9%	1	5.9%	7	41.2%	0	0.0%	17	
Universities and CPD	1	25.0%	0	0.0%	0	0.0%	3	75.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	4	
Private education entities	0	0.0%	0	0.0%	0	0.0%	1	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	
Childcare	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	50.0%	0	0.0%	0	0.0%	0	0.0%	1	50.0%	0	0.0%	0	0.0%	2	
Foundations and charities	0	0.0%	1	11.1%	1	11.1%	3	33.3%	3	33.3%	1	11.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	9	
Social programmes	4	25.0%	0	0.0%	3	18.8%	0	0.0%	0	0.0%	1	6.3%	6	37.5%	0	0.0%	0	0.0%	2	12.5%	0	0.0%	16	
Museums and culture	0	0.0%	8	80.0%	0	0.0%	0	0.0%	1	10.0%	0	0.0%	0	0.0%	1	10.0%	0	0.0%	0	0.0%	0	0.0%	10	
Private sector	0	0.0%	1	16.7%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	16.7%	1	16.7%	0	0.0%	0	0.0%	3	50.0%	6	
Private sector (on-site)	2	16.7%	0	0.0%	2	16.7%	0	0.0%	2	16.7%	0	0.0%	0	0.0%	0	0.0%	1	8.3%	0	0.0%	5	41.7%	12	
Grassroots organisations	0	0.0%	1	5.3%	5	26.3%	0	0.0%	1	5.3%	1	5.3%	0	0.0%	2	10.5%	4	21.1%	1	5.3%	4	21.1%	19	
Individuals and neighbours	2	25.0%	1	12.5%	0	0.0%	1	12.5%	1	12.5%	0	0.0%	2	25.0%	1	12.5%	0	0.0%	0	0.0%	0	0.0%	8	
Politicians	1	33.3%	1	33.3%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	33.3%	0	0.0%	3	
Total	49	26.3%	16	8.6%	20	10.8%	18	9.7%	14	7.5%	10	5.4%	15	8.1%	9	4.8%	9	4.8%	14	7.5%	12	6.5%	186	

Appendix 26. Interaction type by teacher role

		Teacher role											
		Teacher-led		External		Mutual		Standard		Other		Total	
		Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %
Interaction type	Talks	13	26.0%	34	68.0%	3	6.0%	0	0.0%	0	0.0%	50	100.0%
	Field trip	15	93.8%	0	0.0%	0	0.0%	1	6.3%	0	0.0%	16	100.0%
	Project	12	63.2%	3	15.8%	4	21.1%	0	0.0%	0	0.0%	19	100.0%
	Teacher training	5	27.8%	9	50.0%	3	16.7%	1	5.6%	0	0.0%	18	100.0%
	Partnership	0	0.0%	0	0.0%	11	100.0%	0	0.0%	0	0.0%	11	100.0%
	Routine procedure	1	10.0%	3	30.0%	0	0.0%	6	60.0%	0	0.0%	10	100.0%
	Programme implementation	2	13.3%	7	46.7%	5	33.3%	1	6.7%	0	0.0%	15	100.0%
	Workshop and learning activities	5	55.6%	4	44.4%	0	0.0%	0	0.0%	0	0.0%	9	100.0%
	Leisure and social activities	4	44.4%	2	22.2%	3	33.3%	0	0.0%	0	0.0%	9	100.0%
	Coordination	4	28.6%	2	14.3%	7	50.0%	1	7.1%	0	0.0%	14	100.0%
	Private charity, CSR, donations and support	1	8.3%	8	66.7%	3	25.0%	0	0.0%	0	0.0%	12	100.0%
	Other	1	25.0%	2	50.0%	1	25.0%	0	0.0%	0	0.0%	4	100.0%
	Total	63	33.7%	74	39.6%	40	21.4%	10	5.3%	0	0.0%	187	100.0%

Appendix 27. Organisation category by teacher role

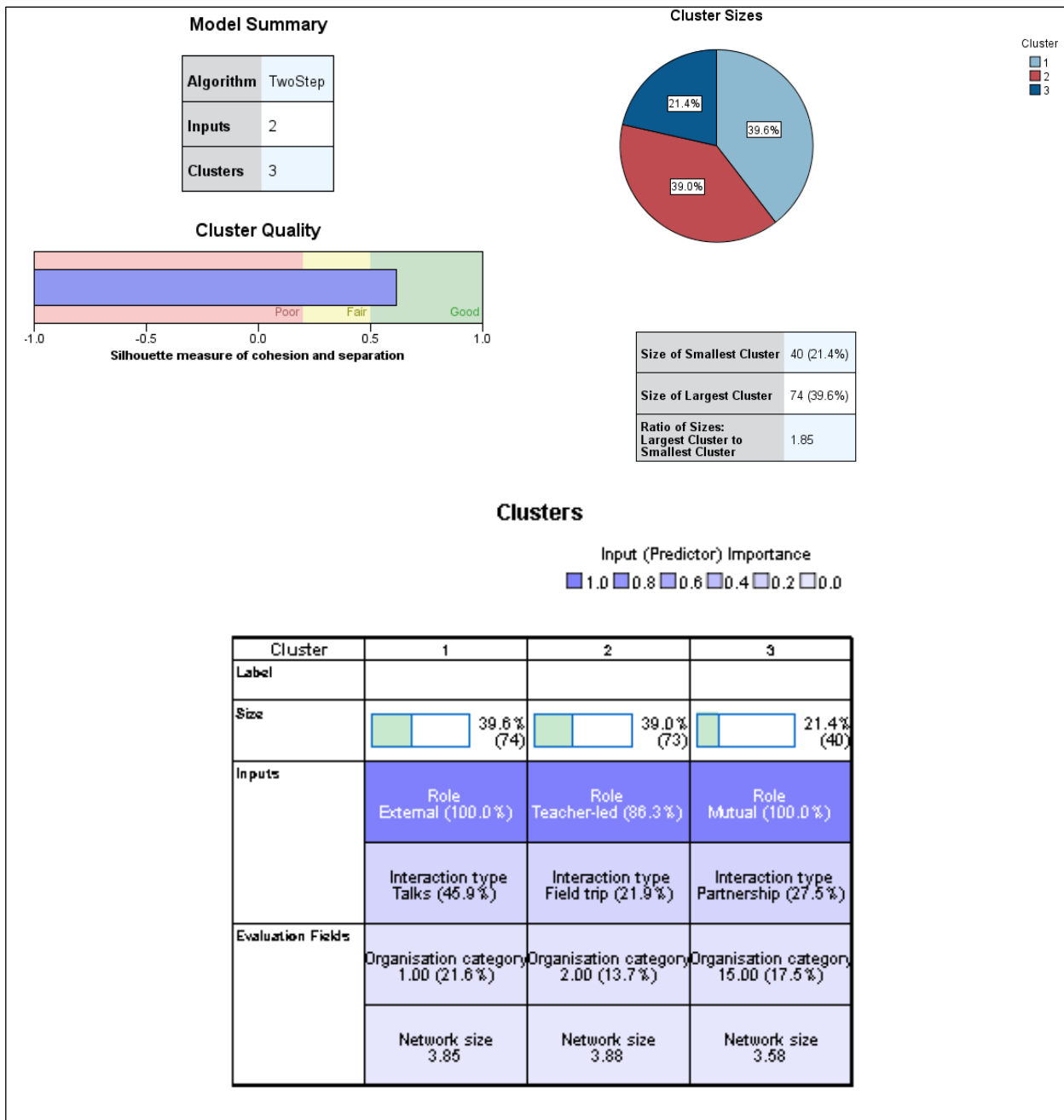
		Teacher role									
		Teacher-led		External		Mutual		Standard		Total	
		Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %
Organisation category	Municipalities	7	26.9%	16	61.5%	3	11.5%	0	0.0%	26	100.0%
	Healthcare	6	31.6%	7	36.8%	2	10.5%	4	21.1%	19	100.0%
	Law enforcement and security	3	15.8%	13	68.4%	2	10.5%	1	5.3%	19	100.0%
	Environmental public body	0	0.0%	3	42.9%	4	57.1%	0	0.0%	7	100.0%
	Local programmes	3	33.3%	4	44.4%	2	22.2%	0	0.0%	9	100.0%
	Teachers	9	52.9%	1	5.9%	6	35.3%	1	5.9%	17	100.0%
	Universities and CPD	2	40.0%	3	60.0%	0	0.0%	0	0.0%	5	100.0%
	Private education entities	1	33.3%	2	66.7%	0	0.0%	0	0.0%	3	100.0%
	Childcare	0	0.0%	0	0.0%	2	100.0%	0	0.0%	2	100.0%
	Foundations and charities	2	28.6%	1	14.3%	2	28.6%	2	28.6%	7	100.0%
	Social programmes	5	31.3%	7	43.8%	3	18.8%	1	6.3%	16	100.0%
	Museums and culture	8	80.0%	1	10.0%	1	10.0%	0	0.0%	10	100.0%
	Private sector	2	33.3%	3	50.0%	1	16.7%	0	0.0%	6	100.0%
	Private sector (on-site)	1	8.3%	8	66.7%	3	25.0%	0	0.0%	12	100.0%
	Grassroots organisations	9	47.4%	3	15.8%	7	36.8%	0	0.0%	19	100.0%
	Individuals and neighbours	3	42.9%	2	28.6%	1	14.3%	1	14.3%	7	100.0%
	Politicians	2	66.7%	0	0.0%	1	33.3%	0	0.0%	3	100.0%
	Total	63	33.7%	74	39.6%	40	21.4%	10	5.3%	187	100.0%

Appendix 28. Organisations by boroughs (1)

Borough														
	Codegua		Coinco		Coltauco		Doñihue		Graneros		Machalí		Malloa	
	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %
Municipalities	5	19.20%	1	3.80%	2	7.70%	2	7.70%	0	0.00%	0	0.00%	6	23.10%
Healthcare	2	10.50%	1	5.30%	4	21.10%	3	15.80%	0	0.00%	1	5.30%	0	0.00%
Law enforcement and security	2	10.50%	2	10.50%	5	26.30%	3	15.80%	0	0.00%	1	5.30%	0	0.00%
Environmental public body	0	0.00%	0	0.00%	2	28.60%	2	28.60%	0	0.00%	1	14.30%	0	0.00%
Local programmes	2	20.00%	0	0.00%	2	20.00%	1	10.00%	0	0.00%	0	0.00%	1	10.00%
Teachers	1	5.90%	3	17.60%	1	5.90%	2	11.80%	0	0.00%	0	0.00%	3	17.60%
Universities and CPD	0	0.00%	0	0.00%	1	20.00%	0	0.00%	0	0.00%	0	0.00%	1	20.00%
Private education entities	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Childcare	0	0.00%	0	0.00%	0	0.00%	1	50.00%	0	0.00%	0	0.00%	0	0.00%
Foundations and charities	0	0.00%	0	0.00%	3	33.30%	0	0.00%	0	0.00%	0	0.00%	1	11.10%
Social programmes	0	0.00%	0	0.00%	3	18.80%	1	6.30%	1	6.30%	0	0.00%	0	0.00%
Museums and culture	0	0.00%	0	0.00%	0	0.00%	1	10.00%	0	0.00%	0	0.00%	0	0.00%
Private sector	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	16.70%	0	0.00%
Private sector (on-site)	0	0.00%	0	0.00%	1	8.30%	0	0.00%	0	0.00%	1	8.30%	1	8.30%
Grassroots organisations	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	4	20.00%	1	5.00%
Individuals and neighbours	0	0.00%	0	0.00%	1	12.50%	1	12.50%	1	12.50%	0	0.00%	1	12.50%
Politicians	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	66.70%	0	0.00%
Total	12	6.30%	7	3.60%	25	13.00%	17	8.90%	2	1.00%	11	5.70%	15	7.80%

Appendix 29.Organisations by boroughs (2)

Borough																
Olivar	Peumo		Pichidegua		Quinta de Tilcoco		Rancagua		Rengo		Requínoa		San Vicente de Tagua Tagua		Total	
Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %	Count	Row Valid N %	Count/Row valid 100%
1	3.80%	1	3.80%	1	3.80%	0	0.00%	2	7.70%	5	19.20%	0	0.00%	0	0.00%	26
1	5.30%	2	10.50%	0	0.00%	1	5.30%	2	10.50%	1	5.30%	1	5.30%	0	0.00%	19
0	0.00%	3	15.80%	0	0.00%	1	5.30%	1	5.30%	1	5.30%	0	0.00%	0	0.00%	19
0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	14.30%	0	0.00%	1	14.30%	0	0.00%	7
0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	10.00%	1	10.00%	1	10.00%	1	10.00%	10
0	0.00%	0	0.00%	1	5.90%	0	0.00%	3	17.60%	0	0.00%	1	5.90%	2	11.80%	17
0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	20.00%	2	40.00%	0	0.00%	5
0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	33.30%	0	0.00%	0	0.00%	2	66.70%	3
0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	50.00%	0	0.00%	0	0.00%	0	0.00%	2
0	0.00%	0	0.00%	0	0.00%	1	11.10%	0	0.00%	0	0.00%	0	0.00%	4	44.40%	9
0	0.00%	0	0.00%	3	18.80%	1	6.30%	4	25.00%	1	6.30%	2	12.50%	0	0.00%	16
0	0.00%	2	20.00%	1	10.00%	0	0.00%	3	30.00%	2	20.00%	0	0.00%	1	10.00%	10
0	0.00%	0	0.00%	0	0.00%	0	0.00%	3	50.00%	0	0.00%	0	0.00%	2	33.30%	6
1	8.30%	0	0.00%	0	0.00%	0	0.00%	7	58.30%	0	0.00%	1	8.30%	0	0.00%	12
0	0.00%	0	0.00%	0	0.00%	1	5.00%	6	30.00%	4	20.00%	1	5.00%	3	15.00%	20
0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	25.00%	0	0.00%	2	25.00%	8
0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	33.30%	0	0.00%	0	0.00%	0	0.00%	3
3	1.60%	8	4.20%	6	3.10%	5	2.60%	36	18.80%	18	9.40%	10	5.20%	17	8.90%	192



Appendix 31. Teachers' self-efficacy to collaborate per teachers' interactions

		Network size						Total			
		0	1	2	3	4	5	6	Teachers	%	
Offer support to teachers	I couldn't do this	0	0	0	0	0	0	0	0	0	99
		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
	I struggle to do this on my own	1	5	1	3	1	0	0	11	13	
		5.0%	26.3%	12.5%	16.7%	14.3%	0.0%	0.0%			
I do this with a bit of effort		9	6	3	9	2	3	1	33	38	
		45.0%	31.6%	37.5%	50.0%	28.6%	33.3%	20.0%			
I do this easily		10	8	4	6	4	6	4	42	48	
		50.0%	42.1%	50.0%	33.3%	57.1%	66.7%	80.0%			
Interest in local project participation	I couldn't do this	0	1	0	0	0	0	0	1	1	100
		0.0%	5.3%	0.0%	0.0%	0.0%	0.0%	0.0%			
	I struggle to do this on my own	1	1	0	0	0	0	0	2	2	
		4.8%	5.3%	0.0%	0.0%	0.0%	0.0%	0.0%			
I do this with a bit of effort		2	4	3	6	2	1	0	18	21	
		9.5%	21.1%	37.5%	33.3%	28.6%	11.1%	0.0%			
I do this easily		18	13	5	12	5	8	5	66	76	
		85.7%	68.4%	62.5%	66.7%	71.4%	88.9%	100%			
Local leadership	I couldn't do this	1	1	0	1	2	0	0	5	6	100
		4.8%	5.3%	0.0%	5.6%	28.6%	0.0%	0.0%			
	I struggle to do this on my own	2	5	0	1	0	1	1	10	11	
		9.5%	26.3%	0.0%	5.6%	0.0%	11.1%	20.0%			
I do this with a bit of effort		11	4	4	8	1	3	3	34	39	
		52.4%	21.1%	50.0%	44.4%	14.3%	33.3%	60.0%			
I do this easily		7	9	4	8	4	5	1	38	44	
		33.3%	47.4%	50.0%	44.4%	57.1%	55.6%	20.0%			
Peer support from other school	I couldn't do this	0	0	0	0	1	0	0	1	1	100
		0.0%	0.0%	0.0%	0.0%	14.3%	0.0%	0.0%			
	I struggle to do this on my own	2	3	0	0	0	0	0	5	6	
		9.5%	15.8%	0.0%	0.0%	0.0%	0.0%	0.0%			
I do this with a bit of effort		2	2	1	2	0	1	0	8	9	
		9.5%	10.5%	12.5%	11.1%	0.0%	11.1%	0.0%			
I do this easily		17	14	7	16	6	8	5	73	84	
		81.0%	73.7%	87.5%	88.9%	85.7%	88.9%	100%			
Peer support from within school	I couldn't do this	1	0	0	1	1	0	0	3	3	100
		4.8%	0.0%	0.0%	5.6%	14.3%	0.0%	0.0%			
	I struggle to do this on my own	1	4	0	1	0	0	1	7	8	
		4.8%	21.1%	0.0%	5.6%	0.0%	0.0%	20.0%			
I do this with a bit of effort		4	1	1	6	0	3	1	16	18	
		19.0%	5.3%	12.5%	33.3%	0.0%	33.3%	20.0%			
I do this easily		15	14	7	10	6	6	3	61	70	
		71.4%	73.7%	87.5%	55.6%	85.7%	66.7%	60.0%			
Support from the community	I couldn't do this	0	0	0	0	2	0	0	2	2	99
		0.0%	0.0%	0.0%	0.0%	28.6%	0.0%	0.0%			
	I struggle to do this on my own	6	5	2	4	0	1	0	18	21	
		28.6%	26.3%	25.0%	23.5%	0.0%	11.1%	0.0%			
I do this with a bit of effort		5	7	2	6	3	2	2	27	31	
		23.8%	36.8%	25.0%	35.3%	42.9%	22.2%	40.0%			
I do this easily		10	7	4	7	2	6	3	39	45	
		47.6%	36.8%	50.0%	41.2%	28.6%	66.7%	60.0%			
Allocate external	I couldn't do this	1	0	0	0	1	0	0	2	2	100
		4.8%	0.0%	0.0%	0.0%	14.3%	0.0%	0.0%			
		8	5	0	7	2	2	2	26	30	

	I struggle to do this on my own	38.1%	26.3%	0.0%	38.9%	28.6%	22.2%	40.0%			
	I do this with a bit of effort	4	6	4	6	2	4	2	28	32	
		19.0%	31.6%	50.0%	33.3%	28.6%	44.4%	40.0%			
	I do this easily	8	8	4	5	2	3	1	31	36	
		38.1%	42.1%	50.0%	27.8%	28.6%	33.3%	20.0%			
Allocate local administration support	I couldn't do this	1	1	1	1	0	1	0	5	6	100
		4.8%	5.3%	12.5%	5.6%	0.0%	11.1%	0.0%			
	I struggle to do this on my own	6	3	1	5	2	3	2	22	25	
		28.6%	15.8%	12.5%	27.8%	28.6%	33.3%	40.0%			
	I do this with a bit of effort	3	5	2	5	1	2	3	21	24	
		14.3%	26.3%	25.0%	27.8%	14.3%	22.2%	60.0%			
	I do this easily	11	10	4	7	4	3	0	39	45	
		52.4%	52.6%	50.0%	38.9%	57.1%	33.3%	0.0%			
ITE institution collaboration	I couldn't do this	6	5	1	5	5	3	0	25	29	98
		28.6%	26.3%	12.5%	31.3%	71.4%	33.3%	0.0%			
	I struggle to do this on my own	4	4	2	3	1	1	0	15	17	
		19.0%	21.1%	25.0%	18.8%	14.3%	11.1%	0.0%			
	I do this with a bit of effort	5	3	4	5	0	2	1	20	23	
	23.8%	15.8%	50.0%	31.3%	0.0%	22.2%	20.0%				
	I do this easily	6	7	1	3	1	3	4	25	29	
		28.6%	36.8%	12.5%	18.8%	14.3%	33.3%	80.0%			