

# Reshaping a high school's whole curriculum: A study of three Chilean cases innovating in different ways

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**Boston College**  
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Curriculum and Instruction

**RESHAPING A HIGH SCHOOL'S WHOLE CURRICULUM:  
A STUDY OF THREE CHILEAN CASES INNOVATING IN DIFFERENT WAYS**

Dissertation  
by  
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of the requirements for the degree of  
Doctor of Philosophy

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## **Abstract**

### **RESHAPING A HIGH SCHOOL'S WHOLE CURRICULUM: A STUDY OF THREE CHILEAN CASES INNOVATING IN DIFFERENT WAYS**

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Dennis Shirley, Chair

This dissertation is a multiple-case study of three Chilean high schools transforming their whole curriculum, i.e., their *comprehensive framework of aims and contents for schooling as a collective endeavor*. The study describes each school's current curriculum and the process of curriculum reshaping that led to it. The overarching goal is to understand how these innovative schools addressed the perceived need to reshape high school curricula.

The theoretical framework combined ideas from the deliberative tradition of curriculum studies with the sociology of the curriculum. Data sources included 125 documents, 56 interviews, and 44 observations collected during multiple, extended visits to each of the schools.

The first school is an elite school developing a more constructivist, scientific, and collaborative college-bound high school than the traditional Chilean college-bound high school by introducing 21<sup>st</sup> century skills and an emphasis on STEM into the curriculum. This case presents dilemmas of constructivism. Second is a working class, rural school that developed a university-like curriculum that requires students to study a common core and offers four areas of choice. This case presents dilemmas of what Bernstein (1971) termed *collected curriculum*. The third school is a technical-vocational school for rural, Indigenous students that developed a doubly countercultural model. This model introduces the Mapuche's intrinsically religious worldview into the curriculum, and puts students' histories, beliefs, and identities at the center of the school experience. This case presents dilemmas of cultural identity.

Together, these schools show that it is possible to reshape the curriculum in different ways within the existing regulations, but this reshaping is fragile and complex. It requires a *culture of curriculum construction* (Pascual, 2001). At the three schools, innovations were shaped by expectations that schooling will give youth a better future and by the discipline-based structure of knowledge. The relations among the three models illuminate the challenges of traditional communitarian identities and the challenge of assisting youth to find meaning at the root of the perceived need for reshaping high school curricula.

## Acknowledgments

First, I would like to thank God and the Jesuits for connecting me with the work of secondary education. Before becoming a Jesuit, I only thought about becoming a math teacher once, when I was in 11<sup>th</sup> grade. I never pursued the idea, though, and studied engineering. Eight years later, in 2004, the Jesuits sent me against my own desires to work as a part-time teacher at a high school. This experience opened a new world for me. I realized the importance of teaching youth to think critically, broaden their horizons, and engage in deep questions of meaning and purpose. I thank God and my brother Jesuits for this thrust. Without it, I would have never become an educator; I would have never studied this doctorate at *Boston College*.

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At *Boston College*, my first thoughts of gratitude are for Dennis Shirley. He made me his partner since I came from Chile in 2014. Thank you for introducing me to the profession and into your life. Thank you for inviting me to co-teach 711 and for the many conversations in your office, around campus, and in Lexington. Thank you for asking me to be explicitly Jesuit when you felt that I was subtracting my religious identity to fit into academia. I would also like to thank Marilyn Cochran-Smith for being that wise woman who asked the right questions and pushed for deeper understandings, helping me to grow. You are a paradigm. Thank you, Kate McNeill, for the warmth with which you always welcomed my ideas and for your concern for focus. Without you, perhaps I would still be analyzing the data for the fourth school-case that I ended up dropping ;). Cristián Bellei, thank you for all the time that you put into this dissertation.

I have never heard of an external reader doing so much work. For me, it is a sign of the commitment that underlies the quality of your work, and which makes you a model to imitate once I am back in Chile.

I could have not finished the doctorate without the support of many friends in Boston. I would like to thank my eleven cohortmates, but especially Shaneé Washington, Allison Nannemann, and Chris Bacon, who at different points revised parts of this manuscript, and Renata Love Jones and Caitlin Malloy, who helped me prepare for the dissertation defense. The Jesuits around have been many during the five years in Boston, but I would like to give special thanks to my brothers Marcel, Paul, and John at Ricci House who supported me during 2018-2019, when I wrote this text. The same gratitude goes for Nemo, my lifelong friend, whom I had the blessing to have close as I finished this work. Several Chileans in Boston also have been very important: Beatriz Fernández, who welcomed me at Lynch; Cote Saffie, with whom we shared 709 in 2014; and Pancho and Johanna Lagos-Gubler. Last but not least, I would like to thank the Hispanics at the Sacred Hearts Parish in Malden and the women imprisoned at Framingham, for whom I had the gift of being a priest during the years of doctoral studies. You knew close to nothing about what I was doing at *Boston College*, yet your love and our celebrations of God's love for all supported me throughout. Thank you Franklin, Wendy, Carolina, Obed, Sister Maureen, Laura, Gwen, Scott, Karen, Debbie, and the hundreds that I cannot mention here.

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## List of Abbreviations

CES:	<i>Coalition of Essential Schools</i>
EIB:	<i>Intercultural Bilingual Education</i> program (initials for the Spanish <i>Educación Intercultural Bilingüe</i> )
HTH:	<i>High-Tech High</i>
IB:	<i>International Baccalaureate</i>
IBDP:	<i>IB Diploma Program</i>
ICTs:	Information and communication technologies
<i>Jefe de UTP:</i>	Head (i.e., <i>jefe</i> ) of a school's technical-pedagogical unit (initials for the Spanish <i>unidad técnico-pedagógica</i> )
MINEDUC:	Ministry of Education
MYP:	<i>IB Middle Years Program</i>
NGO:	Non-governmental organization
NYC:	New York City
OECD:	<i>Organization for Economic Cooperation and Development</i>
PDPS:	<i>Personal and Social Development Program</i> (initials for the Spanish <i>Programa de Desarrollo Personal y Social</i> ).
PEA:	<i>Progressive Education Association</i>
PEI:	Institutional educational project (initials for the Spanish <i>proyecto educativo institucional</i> )
PYP:	<i>IB Primary Years Program</i>
SBCD:	School-based curriculum development
STEM:	Science, technology, engineering, and mathematics
UN:	United Nations
UNESCO:	UN's <i>Educational, Scientific, and Cultural Organization</i>
UNESCO-IBE:	UNESCO's <i>International Bureau of Education</i>

## PREFACE

### The Journey Behind This Study

Like most important projects, this dissertation has a story without which it is not easy to fully grasp its goals. This study's story is that of an intellectual and spiritual journey, but also a journey in the literal sense, through diverse places where I was exposed to an array of efforts for advancing education that changed me and my thinking.

Eight years ago, I worked part-time at *Colegio Enrique Alvear* (henceforth, *Enrique Alvear*), which is a 400-student technical-vocational high school in Cerro Navia, one of the poorest municipalities of Santiago, Chile. I come from an upper-middle class family, so my experience with such situations of marginalization until that moment had been chiefly through volunteer work with youth in Chilean *campamentos*.<sup>1</sup> I had never worked in a high school in this context before, which was the beginning of the journey behind this dissertation.

The main difference between volunteer work with youth and teaching at the school was that when volunteering I never had to deal with formal processes and promotion criteria that are essential to schools as institutions. In this sense, although *Enrique Alvear* always felt like a family in which there was care for everyone, it was a school. The daily experience of the school's structures, many times at odds with students' interests and ways of being, made me think for the first time of how schools embody cultural codes into which students are socialized. Since 50% of those who began 9<sup>th</sup> grade at *Enrique Alvear* did not graduate from high school, I also realized how urgent it was to narrow (or bridge) this distance between the school's codes and students' ways of being. I had not read about Jackson's (1968) *hidden curriculum* at that point –which would have been helpful– but over the years I have come to think that the problem of socializing

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<sup>1</sup> *Campamentos* could be translated as slums, although this is not an exact match.

youth into society's mainstream codes is more complicated than just a matter of power and culture imposition (García-Huidobro, 2018).

I was teaching at *Enrique Alvear* in 2011, when Chile experienced the most massive protests since the country returned to democracy in 1990. Hundreds of thousands of college and high school students protested the country's highly privatized and de-regulated higher education system, marching in the streets and locking down schools for weeks. I protested several times with the students –along with other faculty who supported their claims– and had to stop teaching for the month and a half during which they locked down the school. When we resumed classes, I also saw the state in which the protesters left the school: they had scratched the walls and destroyed furniture and computer equipment. Hence, although the President of Chile increased the funds for working and middle class students who make it to college, the direct result for most of my students, who either did not finish high school or transitioned directly from high school to work, was basically –and ironically– a more deteriorated school.

As with the distance between the school's codes and students' ways of being, what happened with the protests made me reflect about the values and narratives that schools instill in students, and the mechanisms through which they do it. Consequently, I became interested in the curriculum as the framing of schooling that, visibly or invisibly, communicates to students an idea of what it means to be an educated and successful person that in time becomes internalized. Following these experiences, in 2013 I decided to pursue a doctorate in curriculum to acquire the knowledge and tools to help schools like *Enrique Alvear* tackle these structural issues.

Therefore, the journey that began in Cerro Navia led me to Boston in 2014. The first two years of courses and research at *Boston College* were crucial for my growth. They provided me with language for naming some of the aforesaid issues, and introduced me to curriculum studies, the academic field that historically tackled the type of problems in which I am interested. These

courses and research also widened my perspective to see new curriculum challenges to which I had not paid attention before (such as how technology and the learning sciences promise to transform schooling in the coming decades). They also connected me in a new way with my former teacher-colleagues because I became more convinced that no school change is possible, nor desirable, without educators' active involvement. Dennis Shirley, Marilyn Cochran-Smith, and Katherine McNeill taught some of these courses.

However, I also learned –and experienced– that the field of curriculum studies is presently in a crisis (Baker, 2015; Deng, 2015; Young 2013). Briefly, this crisis relates to several scholars' impression that the field is not able to address comprehensive problems of practice such as the ones I touched upon at *Enrique Alvear*. Be it because *curriculum theorizing has flown away from school practice* (Schwab, 1969; Wraga & Hlebowitsh, 2003), because knowledge specialization has overshadowed comprehensive views of schools (Clift, 2008), or because educational research has become too evidence-oriented and less prone to considering the purpose of schooling (Palmer, 2009), few scholars are dealing with the complexity of schools' curriculum as a whole (Goodlad, 1984; Mehta & Fine, 2019). Principals who have responsibility for schools as a whole, or counselors who attend to students' whole experience, however, deal with whole curriculum issues daily. Many schools are tackling comprehensive curriculum challenges on their own, or with the aid of non-governmental organizations (NGOs) that offer them practical support that curriculum studies does not.

Learning about this situation convinced me that, before crafting a dissertation, I had to visit schools that are reshaping the curriculum broadly understood as *a comprehensive framework of aims and contents for teaching and learning*. And so I did. Inspired by Calvo's (2015) trip to the world's most innovative schools, my journey continued during the fall of 2016 through Canada, Guatemala, Spain, Colombia, and Mexico, where I visited about 50 schools. These

schools varied in size, available resources, and student populations, but they shared the fact that they were all innovating beyond instructional improvement in traditional, subject-based class periods. They were somehow reshaping the curriculum. Like Calvo, I could write a book on these incredible school experiences, but this is not the place for that.

What matters for fully grasping the goals of the dissertation is that this six-month trip made me reflect on several issues. First, it confirmed that several others who feel the need for change that I felt at *Enrique Alvear* are trying to transform education in different ways, so interesting things are happening that deserve more attention from a curricular perspective. Second, I realized that few of these innovations were being studied comprehensively so we can learn from them for the advancement of schooling. The majority of these experiences were widely publicized, so they have become well-known and often receive visitors like me, but there were few rigorous studies on them. Third, I perceived that most of these efforts were driven by the last decades' findings about how individuals learn to think (Bransford, Brown, & Cocking, 2000). Thus, they were chiefly concerned for students' acquisition of high-order cognitive skills but gave much less attention to other kinds of school goals such as moral development or the strengthening of democracy. All of these thoughts underlie my idea for this investigation.

The concrete dissertation project was crafted in Boston, during the spring and summer of 2017 that followed the above-mentioned trip. Broadly, the idea was to conduct the type of comprehensive study of schools reshaping the curriculum that I lacked as I visited schools, bridging their narrative accounts of innovation with curriculum studies. As the project matured, I found that Mehta and Fine (2012; 2015a; 2015b; 2019) recently conducted the study *In Search of Deeper Learning*, which investigated 30 U.S. high schools innovating to facilitate deep learning. This dissertation shares Mehta and Fine's comprehensive approach, which included historical, sociological, and philosophical aspects.



Although my initial interests and perspectives have greatly expanded throughout this eight-year journey, Chilean high schools like *Enrique Alvear* continue to be my main concern. This is why I decided that the dissertation would focus on Chilean high schools, and why I involved Cristián Bellei in the dissertation committee. I approached him in 2016 because of a book chapter he wrote on 21<sup>st</sup> century skills in Chile's national curriculum guidelines (Bellei & Morawietz, 2016), and we realized that we share an interest for the structural problems associated with schools' institutional framing for teaching and learning. Also, Cristián has conducted comprehensive studies of Chilean schools that have some similarity with this dissertation (Bellei, Valenzuela, Vanni, & Contreras, 2014; Contreras & Bellei, forthcoming).

Finally, it is important to acknowledge that being a Jesuit lies at the heart of the whole journey that began at *Enrique Alvear* in 2011. Being a Jesuit means that I belong to a Catholic congregation involved in works around the world with the goal of imitating Jesus' deeds. What matters most for this dissertation, though, is that since our beginning in the 16<sup>th</sup> century, Jesuits have been educators concerned with the advancement of schooling for the flourishing of people and communities. According to O'Malley (2015), Jesuits were crucial for the development of secondary education during past centuries, and the *Ratio Studiorum* was the first transnational curriculum.<sup>2</sup> I am an heir of this rich tradition and its long-standing concern for education as humanization that underlies my interest in the values and ideas conveyed to students through schools' curricula.

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<sup>2</sup> The *Ratio Studiorum*, Latin for *plan* or *order of studies*, was the document used for organizing teaching in Jesuit schools around the world for several centuries. It was issued in 1599, after 40 years of deliberations by committees of teachers and administrators from several schools around Europe.

## CHAPTER ONE

### **A Study of Chilean High Schools Reshaping Their Curriculum**

This dissertation is a study of Chilean high schools transforming their curriculum, i.e., innovating beyond instructional change in traditional, discipline-based class periods. This first chapter describes the research problem addressed and its history, as well as the study's purposes and research questions. It begins by presenting the concept of the curriculum that underlies the dissertation, followed by a concise history of how the curriculum emerged and has evolved as a focus of concern for schools, school systems, and educational research. This history serves to establish the need for reshaping the curriculum, especially in high schools. The chapter continues by showing that this need expresses itself in a particular form in Chile, where the study was conducted, and ends with a statement of the dissertation's purposes and research questions.

### **A Broad Idea of the Curriculum as a Framework of Aims and Contents for Schooling**

Generally speaking, there are two main ideas of the curriculum (Amadio, Opertti, & Tedesco, 2015). On the one hand, there is a *narrow idea* that focuses on school subjects and understands curricula in relation to discipline-based study programs. On the other hand, there is a *broad idea* that cuts across school subjects and understands the curriculum as related to a community's selection of culture for educational purposes, expressing its aspirations and vision for its future (Cox, 2018). Although the former idea is predominant in educational research at large (Jonnaert & Therriault, 2013), this dissertation adopts the latter idea, in alignment with the field of curriculum studies and UNESCO-IBE's (2015) efforts for repositioning curriculum debates as broad discussions about the goals and general shape of schooling.

There are many broad conceptualizations of the curriculum, however. As Jackson (1992) pointed out, the curriculum field has an ongoing debate about many issues in which "definitions are pieces of arguments" (p. 12). The history of education also reveals that our understanding of

the curriculum has expanded over time. First, it only referred to the structure of coursework “for the purpose of bringing order to the conduct of schooling” (Jackson, 1992, p. 5). During the 20<sup>th</sup> century, understandings of the curriculum stretched to include most of what happens in schools, even the unspoken goals of schooling (i.e., the *hidden curriculum*). Despite the differences between various present broad conceptualizations of the curriculum, most of them share two elements: they usually “limit the term ... to what goes on in school or under the guidance of teachers [... and] they all insist that the term should cover all of the experiences or learning opportunities that the school offers” (Jackson, 1992, p. 5). Along this line, Reid (2003) suggested that the difference between curriculum-related teaching and learning, and other situations in which teaching and learning take place, is that the curriculum relates to institutionalized learning.

The curriculum is not the heart of schooling, though. The heart is the teacher-student relationship in the presence of content (Westbury, 2000). City, Elmore, Fiarman and Teitel (2009) recently termed this relationship the *instructional core*. What the curriculum does is to frame this *pedagogical heart*, embedding it socially and culturally. This structuring-binding nature of the curriculum is what makes it intrinsically political: a complicated conversation (Pinar, Reynolds, Slattery, & Taubman, 1995). The curriculum could be understood as an expression of what Aristotle theorized as our interdependent social-political human nature; both of its constraining and of its enabling possibilities (Westbury, 2008; Young, 2014).

Curriculum development occurs at various levels within educational systems, ranging from national curriculum guidelines to school-level frameworks. For this study, individual teachers’ lesson plans are different from the curriculum that frames these plans through shared learning goals, time allotments, and other structures that go beyond a single teacher’s agency. In this sense, the study assumes that schools are the lowest level within educational systems at which curriculum development shapes students’ experience as a whole. This is the reason the

study does not focus on specific classrooms or teachers but on schools as communities and institutions where teaching and learning is a collective endeavor.

Building upon the previous considerations, the dissertation approaches the curriculum as a *comprehensive framework of aims and contents for schooling as a collective endeavor*. This framework “is sometimes instantiated in a document [or a set of documents] but, more broadly, it exists in the shared perceptions of the participants in schooling and their relevant communities” (Doyle, 1992, p. 487). In this vein, texts describing a school’s or school system’s curriculum capture essential elements of it, but there are always non-written aspects of the curriculum that live in the community’s ideas, expectations, and conflicts about what schools are and should do. Hence, studying a school’s curriculum implies collecting the visible and invisible elements of a school community’s framework of aims and contents for schooling.

The terms *whole curriculum* or *curriculum as a whole* do not introduce another definition of the curriculum. I use them when I believe it is important to distinguish between partial descriptions of the curriculum (e.g., a subject’s learning goals or some written document) and the total framework of aims and contents –written and unwritten– that shapes what occurs in a school or school system. Accordingly, this dissertation explores the degree to which curricula are more or less coherent wholes that –explicitly or implicitly– indicate why certain things should be taught and learned. It asks how and if these things come together as “a whole that we tend to regard as what it means to be educated” (Kliebard, 1989, p. 5).

### **A Short Story of the Concern for the Shape of High School Curricula**

Although the history of education spans a broad timeframe, and there have been curricula for as long as there has been institutionalized learning, Hamilton (2009) indicated that the term curriculum was first used in 16<sup>th</sup> century Europe, when the expansion of schooling first required processes of standardization of studies. As Doyle (1992) put it,

[I]n one-room schools, practical questions of scope and sequence could be resolved by individual teachers. As enrollment grew, however, the need to organize levels of schooling and synchronize the work of several teachers within and across these levels increased ... [and] the curriculum became a useful tool. (p. 487)

In this vein, the curriculum is intrinsically related to the modern institutionalization of education, combining its administrative, educational, and political aspects (Reid, 2003).

Relatedly, what we now call *traditional academic curriculum*<sup>3</sup> has its origins in late 16<sup>th</sup> century France (White, J.L., 2011). Trying to provide a more efficient and speedier form of preparation for higher education than what was normally available, Pierre de la Rameé –better known as Rasmus– broke away from the medieval emphasis on reading and commenting on classical Latin texts, “in favor of courses of study built around separate branches of knowledge” (White, J.L., 2011, p. 2). During the 17<sup>th</sup> century, Protestant communities took up this new way of systematizing the curriculum, and “developed [it] into a full-blooded encyclopedic project” (p. 2) that in time became the predominant shape of high school curricula.

The curriculum did not become an object of scholarly attention until the turn from the 19<sup>th</sup> to the 20<sup>th</sup> century, however, when the U.S aimed at universalizing secondary education (Jackson, 1992). France, Germany, and the U.K. had public systems of lyceums, gymnasiums, and high schools long before the U.S. developed its secondary education system, but they were elitist (Benavot, 2006). The U.S. decided to expand access, which demanded to rethink the traditional (European) secondary school models (Benavot & Resnik, 2006). This involved heated debates between philosophers, discipline-specialists, sociologists, and people from the fields of

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<sup>3</sup> “I mean by [*traditional academic curriculum*] a compulsory, subject-based curriculum ... consisting primarily of English, mathematics, science, history, a foreign language or languages, geography, art, music, and physical education, the last three of which are treated as lower in status than the more academic subjects” (White, J.L., 2011, p. 3).

psychology and management, which were appearing at that time (Lagemann, 2000). For Kliebard (1995), all these approaches played some role in shaping the U.S. high school model (e.g., introducing electives, student counseling, or daily-life-oriented subjects such as home economics). Yet, “*social efficiency* emerged as the principal ingredient” (p. 189).<sup>4</sup>

In this vein, Jackson (1992) suggested that Bobbitt (1918) invented curriculum studies when he realized that the latter process of school system building needed a professional not yet available: the curriculum specialist. By the end of the 1930s, U.S. schools of education housed the world’s first curriculum departments. A decade later, Tyler (1949/2013) published his famous *Basic Principles of Curriculum and Instruction*, offering a guide for shaping a school’s curriculum by giving attention to subject specialists, the learners, and life outside of the school, filtering these inputs through the school’s philosophy and the psychology of learning.

With the ascendance of the U.S. as a world power after World War II, the second half of the 20<sup>th</sup> century saw the expansion of secondary education around the world, along with U.S. concerns for school system building and the curriculum. The country’s involvement in the reconstruction of Europe via massive aid programs “provided an auspicious context for spreading U.S.-based educational principles” (Benavot & Resnik, 2006, p. 50). Something similar happened in other latitudes through international organizations such as the World Bank (Spring, 2015). Today, most countries offer secondary education to a majority of their youth through schools that are organized as the “large bureaucratic institutions that we know today” (Sawyer, 2014a, p. 1).

The 1980s and 1990s brought new advances to the institutionalization of schooling, which further changed the form of curriculum development. Global economic competition shifted the

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<sup>4</sup> *Social efficiency* is the school of thought within curriculum work that aims at engineering school experiences so they allow students to develop the knowledge and skills needed for future occupations. It is heavily influenced by ideas and techniques from scientific management (Kliebard, 1995).

focus of concern from student enrollment toward educational quality (Tucker & Coddington, 1998; World Bank, 2005). This advance was tied to standards-based approaches that (a) understood the curriculum as a school system's set of quality-standards, and (b) increased the amount of standardized testing for measuring the attainment of these standards (Rizvi & Lingard, 2010). Along this line, curriculum development evolved into its present two-tiered format (UNESCO-IBE, 2017). On one level, countries develop national frameworks of learning standards (Westbury, 2008). On another level, schools and school networks have freedom to develop contextualized curricula as long as they meet the mandated standards.

Present debates on these learning standards are driven by two main discourses (Spring, 2015). First, economic organizations such as the OECD have argued that job markets require youth to develop 21<sup>st</sup> century skills such as critical thinking and creativity, which should be at the core of schools' curricula. Second, UNESCO (2015) and other humanist groups have tried to stretch the latter agenda by proposing that curricula integrate four types of learning (Delors et al., 1996): (a) *learning to know*, which has been the focus of schooling until now; (b) *learning to do*, regarding the acquisition of practical skills; (c) *learning to be*, in relation to developing mature identities and self-worth; and (d) *learning to live together*, regarding social, moral, and civic abilities (Sinclair, 2004). Some think that global corporations' push for the formation of human capital has become the key driver for educational goals (Postman, 1996; Vargas, 2017).

Taking a position in these debates, several groups have proposed diverse frames of 21<sup>st</sup> century skills (or competences).<sup>5</sup> Pellegrino and Hilton (2012) led a study for organizing the

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<sup>5</sup> Some make a distinction between *skills* and *competences*. E.g., Pellegrino and Hilton (2012) understood competence as the "blend of content knowledge and related skills" (p. 23). Others, such as Westera (2001), have argued that "the competence concept ... has no significance beyond that which is associated with the term skill" (p. 75). Following Voogt and Roblin (2012), this study uses the terms skills and competences interchangeably.

various U.S. frames, and arrived at three broad domains of competence: cognitive, intrapersonal, and interpersonal. They also claimed that “cognitive competencies have been more extensively studied than have intrapersonal and interpersonal competencies” (p. 4). Voogt and Roblin’s (2012) study of international frames for 21<sup>st</sup> century skills –chiefly U.S. and European– indicated something similar. Simply put, reviews revealed that, beyond the economic or humanist rationales, the central content-focus of most current curriculum frameworks is on cognitive skills.

In parallel with these debates on learning standards, comparative studies of national curriculum guidelines since 1950 show that, despite variations across regions, a strong process of world-wide curriculum homogenization has been taking place (Benavot, Cha, Kamens, Meyer, & Wong, 1991; Kamens & Benavot, 2006). Describing this process, McEneaney and Meyer (2000) identified three trends: (a) an expanding rationalization of the environment through the scientific mindset, (b) an emphasis on transnational elements and perspectives over national (or local) traditions, and (c) an increasing focus on the individual –instead of communities– at the center of society.<sup>6</sup> They also noted that “it is very difficult to find, in any country, real movements in the opposite direction, apart from decorative adaptations, such as dramatic emphases on nationalist history and the authority of religious/ethnic traditions” (McEneaney & Meyer, 2000, p. 204).

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<sup>6</sup> Based on these trends, McEneaney and Meyer (2000) predicted –quite accurately– that the future directions of the main school subjects would be the following:

- *Mathematics*. Statistical data analysis would continue to grow in importance.
- *Language and literature*. Emphasis would be on students’ communication skills, “away from a focus on students’ ... correct use of elite forms” (p.206). Nonetheless, English would become the *lingua franca*, so it would be a part of all curricula around the world.
- *Sciences*. The key would be to learn to think scientifically, not to master science contents.
- *Social studies*. Traditional national history and geography would receive less emphasis, and the subject would look more like a collage of topics stressing the value of human diversity.
- *Civics*. There would be a shift from the attention to government rules and structures toward human rights and international/multicultural views.
- *Art*. The emphasis would be on students’ interests and grasp of diverse cultural forms.



More recently, Baker (2015) added that this global process has at least three empirically-observable dimensions: (a) a growing emphasis on high-order cognitive skills, (b) an increasing prioritization of science as the main truth claim (i.e., an expansion of the assumption that valid knowledge comes from linking empirical evidence and theory), and (c) greater universalism of knowledge –vs local or particularistic understandings– which includes the universalization of humanity itself through the idea of equity. Together, these trends shape curriculum guidelines for youth that are remarkably different from those of decades ago (Baker, 2014).

In tandem with these world processes since World War II, the 1970s witnessed the emergence of critical theories of the curriculum (Pinar, 1978, 2008). The main critique has been that countries have developed massive school systems to socialize all youth into the codes deemed necessary for participating in the rationally-organized, industrial –now digital– society, internalizing the culture of the powerful as *the culture* (Bourdieu & Passeron, 1977; Díaz-Barriga, 2005; Goodson, 1995). For instance, Apple (1979) claimed that most modern curricula convey an individualist, meritocratic vision of the world, de-politicizing our schools (and societies). Critical curriculum theorists have examined identity-, ideology- and power-related issues, and have explored how diverse worldviews can enter school systems through alternative curricula. Most curriculum scholars have embraced this approach, which has resulted in a growing divide between the academic field of curriculum studies and official curriculum development and policymaking (Wise, Hayward, & Pandya, 2016; Wright, 2000).

What have been the consequences of all these large-scale developments for school-level conversations about the curriculum? This question is especially relevant since the 1980s and 1990s, when curriculum development evolved into its present two-tiered format, in which schools –and school networks– have freedom to develop contextualized curricula within the mandated learning standards. Chapter Two presents studies on school-level curriculum development and

change efforts. For now, it suffices to say that, in spite of the evolution of curriculum guidelines along the aforementioned tracks, the general shape of schools has remained largely unchanged (Elmore, 1996, 2016; Mehta, Schwartz, & Hess, 2012; Tiramonti, 2015; White, J.L., 2011).

Theoretically, two-tiered curriculum arrangements would facilitate school-based curriculum development that integrates mandated learning standards with local cultures and needs. In reality, however, most schools have focused on tested subjects, which has resulted in a narrowing of the curriculum to the core subjects (Au, 2007, 2011; Bergqvist & Bergqvist, 2017).

Some scholars also posit that educational authorities have invested the energy in rewriting curriculum frameworks and perfecting assessments rather than doing the more arduous work of assisting schools in building their capacity for contextualizing the curriculum (McPhail, 2016a; Priestley, Minty, & Eager, 2014; Westbury, 2008). Clandinin and Connelly (1992), and Doyle (1992) suggested that educational systems have evolved in such a way that schools now focus mainly on *how* teachers teach (i.e., pedagogy), at the cost of overlooking *what* they teach (i.e., the curriculum). In short, there seems to be a large gap between the development of curriculum guidelines at the policy level, and what actually occurs in schools with the curriculum.

### **The Need for Reshaping High School Curricula**

In this school-level situation of stasis and narrowing of the curriculum, many teachers have begun to demand curricula that accommodates students who learn at different paces and provides time for interdisciplinary projects. This demand stems primarily from concern for the relevance of what occurs in classrooms (Collins, 2017; Robinson & Aronica, 2015). In his last book, Perkins (2014) suggested that,

Although in most settings curriculum trundles along its traditional tracks, many teachers in many schools have gotten uppity, pushing hard on the boundaries of what's usually taught. There are at least six broad trends ... (1) 21<sup>st</sup> century skills and dispositions ... (2)

Renewed hybrid, and less familiar disciplines ... (3) Interdisciplinary topics ... (4) Global perspectives, problems, and studies ... (5) Learning to think about the world with the content ... [and] (6) Much more choice of what to learn ... Collectively, these six [trends] reflect a worry widespread among thoughtful teachers ... concerned with the shape of education. (pp. 2-3)

These efforts are partially being supported by foundations, and teams of psychologists and discipline specialists working together around the learning sciences (Martinez & McGrath, 2014; Mehta & Fine, 2015a; Sawyer, 2014a). Many pedagogical innovations currently being implemented, such as diverse forms of collaborative learning, come from these groups.

Not surprisingly, though, research on educational change indicates that deep transformation continues to be elusive (Elmore, 2016; García-Huidobro, Nannemann, Bacon, & Thompson, 2017; Mehta & Fine, 2015a; Tiramonti, 2015). For Penuel and Spillane (2014), part of the problem is that most of these efforts are too concerned about “engineer[ing] new forms of learning in a small number of classrooms” (p. 649), and do not pay enough attention to the visible and invisible infrastructures that guide (or constrain) teaching and learning in schools. In other words, most of these innovation attempts tend to overlook the structural-institutional dimension of the curriculum that Tyack and Tobin (1994) termed the *grammar of schooling*.<sup>7</sup>

The problems of a general inadequacy of traditional school structures that calls for reshaping the curriculum, and the difficulty of doing it, seem to be more pressing in secondary

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<sup>7</sup> “By the ‘*grammar*’ of *schooling* we mean the regular structures and rules that organize the work of instruction. Here we have in mind, for example, standardized organizational practices in dividing time and space, classifying students and allocating them to classrooms, and splintering knowledge into subjects ... [These practices] structure schools in a manner analogous to the way grammar organizes meaning in language. Neither the grammar of schooling nor the grammar of speech needs to be consciously understood to operate smoothly. Indeed, much of the grammar of schooling has become so well established that it is typically taken for granted as just the way schools are” (Tyack & Tobin, 1994, p. 454).

schools than in primary schools (Bellei, 2012; Terigi, 2012). There are two main reasons for this. First, secondary education is an intermediate level between universal education and optional pathways that increasingly involves more complex issues related to students' identities and their futures. Most students and families know –or sense– that these identities and futures are largely dependent upon one's socioeconomic status, which arouses contradictory feelings amongst the public toward secondary schooling (López, N., Operti, & Vargas, 2017). Second, the last decades' changes in global and youth cultures are having important effects in students' high school experiences (Bellei, 2012; Poggi, 2003). U.S. estimates indicated that 75% of high school students found their classes lacking relevance (Yazzie-Mintz, 2010), which increased across the course of students' careers in high school (Erickson et al., 2008). This whole situation could be understood as the escalation of old problems due to the expansion of schooling, a new problem associated with cultural and technological changes, or a combination of both (Terigi, 2012).

In this context, the distance between practical curriculum development and the academic field that used to prepare professionals for helping schools to shape their curriculum has led several scholars to write about a curriculum crisis (Apple 2018; Clift, 2008; Deng, 2018; Wraga & Hlebowitsh, 2003; Young 2013). Concrete curriculum work “tend[s] to be dominated by specialists in particular subject matter fields rather than by specialists whose domain of expertise is the curriculum in general” (Jackson, 1992, p. 37). Traditions that approached the school curriculum as a whole appear to have been lost through a process of historical amnesia (Apple, 2018; Shirley, 2009). Few are systematically working on –and being prepared for– the comprehensive curriculum updates that are needed, which should take into account the multiple philosophical, historical, political, and technical aspects of the curriculum (Palmer, 2009).

The way in which curriculum issues are evolving also suggests major challenges related to democracy and equity (Beane, 1997; Reid, 1998; Westbury, 2013). Some foresee that, unless

we are able to creatively transform school structures, the future of education could be learning in diverse networked environments that replace *brick-and-mortar schools* (City, Elmore, & Lynch, 2012; Sawyer, 2014b). Bauman (2005) predicted that schools will be increasingly subjected to de-institutionalizing pressures from governments and students eager to meet job markets' needs, which will force "the privatization and individualization of the teaching-learning settings and situations, as well as a gradual yet relentless replacement of the orthodox teacher-student relationship with the supplier-client ... pattern" (pp. 316-317). This is similar to what Williamson (2013) depicted in *The Future of the Curriculum*, although he added knowledge specialization and diverse groups' demands for identity recognition as two other drivers for more fragmented curricula. These possible directions for the curriculum point toward a divergence of educational experiences that poses major challenges for our social and democratic life, let alone for equity.

In sum, several signs indicate that there is a critical *need for reshaping high schools' whole curricula* (Tedesco, Operti, & Amadio, 2014), and that this is a very complex, seldom studied problem (Goodlad, 1984; Mehta & Fine, 2019). I chose to conceptualize this problem as a need for *curriculum reshaping* –not for *whole school reform* (Berends, Bodilly, & Kirby, 2002) or *coherent school (re)design* (Mehta & Fine, 2015b)– to emphasize three points. First, there is a need for *reshaping* –innovating, transforming– not merely for *improving* what is already in place, and the term *reform* has been used indistinctively to refer to both types of processes (Hargreaves & Shirley, 2012; Payne, 2008). Second, although there is a need for many types of innovations in schools, the problem spotted is specifically curricular. It certainly relates to the need for pedagogical innovations –and in many cases these two needs concur– but curricular issues need to be kept analytically distinct from those of pedagogy (Clandinin & Connelly, 1992; Doyle, 1992). Indeed, I believe that the failure to disaggregate them has contributed to the current crisis. Finally, I wanted to make explicit the connection between the dissertation's research problem and

curriculum studies, the field that historically has addressed this type of problems, even if it has failed to do so in recent years.

### **The Need for Reshaping High School Curricula in Chile**

The problem described above has a specific form and history in Chile, where the study was conducted. The foundations of the country's school system were built during the 19<sup>th</sup> century upon French and German influences (Cox, 2011). This is why it still combines college-bound and technical-vocational secondary schooling.<sup>8</sup> However, the system only began to expand to include the majority of the population in the late 1960s (Bellei, 2003), under the influence of U.S. ideas that arrived with the *Alliance for Progress*<sup>9</sup> (Díaz-Barriga & García, J.M., 2014). A prominent figure of this period was Mario Leyton, the first Chilean curriculum scholar. He studied in the U.S. with Tyler (1949/2013), and returned to Chile to design the 1965 curriculum reform that followed the country's establishment of eight years of compulsory education (Díaz-Barriga, 1999). This reform introduced behavioral objectives in the Chilean curriculum, which were the basis for the first national assessments in the late 1960s (Leyton, 1970).

The military coup of 1973 interrupted the democratic process of Chilean educational system –and curriculum– building, and allowed neoliberal policymakers to place the foundations for a decentralized educational market with multiple, private school-providers funded through

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<sup>8</sup> Chilean secondary education has two levels: lower secondary education, from 7<sup>th</sup> to 10<sup>th</sup> grade, and higher secondary education, from 11<sup>th</sup> to 12<sup>th</sup> grade. Lower secondary education is the same for all students (MINEDUC, 2015a), but higher secondary education can be college-bound or technical-vocational, which have different curriculum frameworks (MINEDUC, 2005, 2009, 2013a). Students choose their track. Almost 45% of Chilean 11<sup>th</sup>- and 12<sup>th</sup>-graders are in technical-vocational tracks (MINEDUC, 2012).

<sup>9</sup> The *Alliance for Progress* was a U.S. aid program for Latin America initiated by J.F. Kennedy after the Cuban Revolution. Its goal was to reduce poverty and adult illiteracy to strengthen democratic regimes and decrease the risk of more Communist revolutions in the region.

government vouchers (Bellei, 2015).<sup>10</sup> From a curriculum perspective, this project required moving from a national curriculum defined by the Ministry of Education (MINEDUC) toward a flexible framework of learning objectives within which diverse schools could develop their own curricula (Cabaluz, 2015; Gysling 2003). Chile resumed its curriculum debates in 1990, when the country returned to democracy. Yet, discussions continued to be framed by this flexibility principle established during the dictatorship (Picazo, 2007).

The concurrence of this history with global curriculum trends since the 1980s determined that Chile has a two-tiered curriculum since the late 1990s. This curriculum format combines learning standards aligned with OECD's 21<sup>st</sup> century skills, which apply to all schools (even those that do not receive public funding), and flexibility for developing contextualized school-level curricula within the national frameworks (Cox, 2001). There have been various versions of these frameworks over the last decades, but scholars have asserted that these versions have been similar in many aspects (Marticorena, 2013; Matus, 2014). Bellei and Morawietz (2016) studied the presence of 21<sup>st</sup> century skills in these frames, and found that they have emphasized cognitive skills while giving less attention to intra- and interpersonal skills. Valverde (2004) claimed that Chilean curriculum policies have been consistent with global trends.

Since the country's return to democracy, interest in students' disciplinary learning has been coupled with concern for citizenship education (Bascopé, Cox, & Lira, 2015; Gysling,

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<sup>10</sup> Chilean schools can be of three types depending on the source of funding and who is the *sostenedor* or ultimately responsible for the school (who can be a person or a legal entity). These school types are (a) public, (b) private, and (c) publicly-subsidized private, which are similar to U.S. voucher schools. The percentages of students attending these schools are 37.0%, 7.7%, and 55.3%, respectively, which means that 63% of Chilean students are in schools with a private *sostenedor* (MINEDUC, 2015b). Those *sostenedores* who are responsible for many schools—be them public or private—generally foster networks among these schools with central offices that coordinate them (like U.S. school districts or charter networks).

2003). This concern has been embodied in transversal, cross-curricular learning goals that have been a part of all national curriculum frameworks since the 1990s (Cox & García, C., 2015; Romeo, 2001). The scarce research available on the attainment of these cross-curricular goals, however, indicates that they have all but faded away because the real focus of schools has been on the core academic disciplines (Gysling, 2007; Marticorena, 2013; MINEDUC, 2001).

Two broad kinds of documents contain essential elements of a Chilean school's curriculum. First, every Chilean school must have an *institutional educational project* (PEI for its Spanish initials). This project “gives coherence and meaning to the school's management” (MINEDUC, 2014, p. 5); coherence because all the school's actions, structures and processes should be consistent with its principles, and meaning because it should contain the school community's vision of student development. Second, ideally each school proposes a contextualized way for attaining the mandated national learning goals (both subject-based and cross-curricular). This should be translated into two types of documents: study programs, which indicate the temporal sequence in which the mandated learning goals will be attained (by subject and grade-level), and study plans, which specify the number of class periods allotted to each subject in each grade for teaching the aforesaid study programs.<sup>11</sup>

In this arrangement, the flexibility principle takes two forms (MINEDUC, 2017a). First, a school can develop its own programs and plans in line with its PEI. Second, if a school chooses to use the optional programs and plans prepared by the MINEDUC, it has six class periods per week for offering alternative arrangements, termed *class periods of free disposal*.<sup>12</sup>

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<sup>11</sup> Schoolwork in Chile is organized by 45-minute class periods. Study plans indicate the number of these class periods allotted to each subject during a regular week (or year). See Table 1.1.

<sup>12</sup> This assumes that the school has *Full School Day*, an extended school day policy adopted by about 90% of Chilean schools (Martinic, 2015). Regarding the *class periods of free disposal*, the MINEDUC (2015a) suggested that they are for (a) new subjects, (b) more time for already established subjects, or (c) cross-curricular activities.



What has happened in Chile at the school level? The literature available indicates that less than 20% of the schools have actually developed programs and plans of their own (Cox, 2011; Sandoval, 1999). The majority of the schools have simply adopted the optional ones prepared by the MINEDUC, so Table 1.1 gives an idea of a regular school-week for most Chilean students.

Table 1.1

*Number of 45-minute periods per week allotted to each subject in most Chilean high schools*

Subject	7 <sup>th</sup> and 8 <sup>th</sup> grades	9 <sup>th</sup> and 10 <sup>th</sup> grades	11 <sup>th</sup> and 12 <sup>th</sup> grades <sup>13</sup>	
			College-bound	Technical-vocational
Mathematics	6	7	3	3
Language and literature	6	6	3	3
Natural sciences <sup>14</sup>	4	6	4	-
History, geography, and social sciences	4	4	4	4
Foreign language: English	3	4	3	2
Curriculum core	23	27	17	12
Art and/or music	3	2	2	-
Religious education <sup>15</sup>	2	2	2	2
Physical education and health	2	2	2	-
Technology	1	2	-	-
Counseling or <i>curso</i> council <sup>16</sup>	1	1	1	-
Philosophy and psychology	-	-	3	-
Curriculum periphery	9	9	10	2
Track-related specialized courses	-	-	9	22
Class periods of free disposal	6	6	6	6
Differentiated plan	6	6	15	28
Total of 45-minute periods per week	38	42	42	42

Source: MINEDUC (2017b).

<sup>13</sup> These plans for 11<sup>th</sup> and 12<sup>th</sup> grades will change in the coming years because the national curriculum framework for these grade-levels is currently under revision.

<sup>14</sup> Biology, chemistry, and physics are integrated from 7<sup>th</sup> to 10<sup>th</sup> grade (MINEDUC, 2015a). In college-bound 11<sup>th</sup> and 12<sup>th</sup> grades, however, these subjects are separate, and students choose one of them for four 45-minute class periods per week.

<sup>15</sup> All Chilean schools—including public ones—must offer religious education in the beliefs that are most common among students. Students can opt out of this class if they—or their parents—want, but schools must offer it (Montecinos, Moya, Vargas, Berkowitz, & Cáceres, 2017).

<sup>16</sup> In contrast to the U.S., Chilean teachers—not students—move between classrooms to teach to 30- to 40-student groups, called *curso*s. This *curso*-structure allows to have either counseling or *curso* council as a part of students' regular schedule.

Most likely, this situation of limited school-based curriculum development is due to a lack of capacity for doing so, which relates to a general absence of a *culture of curriculum construction* (Pascual, 2001). Besides this lack of curriculum construction, Bellei and Morawietz (2016) claimed that the adoption of the MINEDUC's programs and plans has been inconsistent because of weak implementation devices, such as professional development or teaching materials. They also mentioned that standardized testing has aggravated the problem by pressing most schools to narrow the curriculum to the basic language and mathematics standards. In sum, Chile shows a gap between the curriculum frameworks developed at the national-level, and what actually occurs in schools with the curriculum that is similar to the gap evidenced more broadly.

Student protests of 2006 and 2011 were not chiefly about the curriculum (Cox, 2006; Magendzo, Abraham, & Lavín, 2014); however, they triggered a concern for students' depth of learning that relates to it. Students demanded *quality public education for all* in relation to dismantling neoliberal policies shaping Chile's educational system since the 1980s<sup>17</sup> (Bellei, Contreras, & Valenzuela, 2010). Many interpreted this demand as a plea for more equitable funding for schools, and greater professionalization of education so all schools actually develop their own contextualized curriculum, and become places for deep, meaningful learning (Casassus, 2010; Gysling, 2016). Nonetheless, some interpreted it as a call for increased accountability to guarantee that every student attains the learning standards in the national curriculum framework (Espínola & Claro, 2010). In these circumstances, recent years have seen a surge in the concern

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<sup>17</sup> Protests of 2006 and 2011 were different from one another. Protests of 2006 were led by high school students, and related to the general law governing K-12 schools since the dictatorship, which was finally changed in 2009. Protests of 2011 were led by college students, and focused on higher education issues such as student loans, funding for public universities, etc. In spite of the differences, the background of both protest movements was the same: the market-based policies shaping the whole Chilean educational system since the 1980s, and their inequitable consequences for students and their families, as well as larger communities.

for students' depth of learning, and several foundations and NGOs are proposing imported models for innovation with the promise of transforming Chilean schools (Aziz & Petrovich, 2016; Ed2020, 2017; Fundación Telefónica, 2016).

Chilean research on these school-level innovations is scarce, however. The country has and has had curriculum scholars such as Cox (2001, 2006, 2011); Espinoza, Guzmán, M.A., and Riquelme (2018); Ferrada (2001); Gysling (2003, 2016); Magendzo (2008); Meza, Pinto, and Pascual (2003); Silva (2000); and Soto (2003). But they have chiefly focused on policy debates, and “scholarly production that is independent of these reforms has had little development” (Magendzo et al., 2014, p. 174). Thus, attention to school-level curriculum issues has been scarce, and preparation of curriculum specialists to help schools develop their own curriculum has been meager (Espinoza et al., 2018). One of the abovementioned scholars said to me in a personal conversation: “Ultimately, high school students protested because they yearned for a different school experience; one that allows them to flourish fully... But where are curriculum scholars building that alternative? We are not doing what we are supposed to.”

In sum, the international need for reshaping high school curricula, the difficulties for doing so, and the lack of comprehensive research on this matter also exist in Chile. Gysling (2016) proposed that the country needs to discuss the orientation of secondary education as a whole “before introducing more partial changes that will not solve its deepest problems” (p. 16). Her concern was that fragmented reforms neglect (a) the extension of the national curriculum framework, (b) the socioeconomic difference between students in the college-bound and the technical-vocational tracks (Sevilla, 2017), and (c) the crisis of meaning in secondary education due to its orientation to an uncertain future that is highly determined by students' socioeconomic status (Sepúlveda & Valdebenito, 2014; Valdebenito, 2015). In this vein, the inadequacy of traditional high school curricula in Chile is a multidimensional problem that involves

disciplinary-based learning structures (and their contextualization), as well as unwritten, deep-seated ideas about what high schools are –and what they should do– with strong ties to students’ socioeconomic status.

### **The Study’s Purposes and Research Questions**

To address the research problem described, this dissertation is a descriptive multiple-case study of three Chilean high schools that reshaped –or are reshaping– their curriculum, i.e., that innovated –or are innovating– on their comprehensive framework of aims and contents for teaching and learning as a collective endeavor. The main criterion for selecting the schools was their experience in curriculum innovation, which I considered a reflection of the existence of a culture of curriculum construction (i.e., the institutional habit of reflecting and deliberating about what is worth teaching and why; Pascual, 2001). At the time of the study, two of the schools had institutionalized important changes.<sup>18</sup> The third school had institutionalized significant changes by 2015, and then moved in a different direction. Chapter Four expands on the case selection.

The general purpose of the study was to *understand how these innovative schools addressed the perceived need for reshaping high school curricula*. To attain this overarching goal, the purpose of each school-case study was to *understand in rich and nuanced ways the high school model developed at the respective school*. The six-month trip referred to in the Preface convinced me both of the significance of conducting such a comprehensive study and of the value of using conceptual tools from curriculum studies to do it.

The research questions addressed to understand the curricular model at each high school were the following:

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<sup>18</sup> For Fullan (2007), innovations have three broad phases: (a) *initiation*, the process that leads up to and includes the decision to change; (b) *implementation*, the attempts to put the change into practice; and (c) *institutionalization*, when changes get built into the system.

1. What is the whole curriculum of this innovative school at present (i.e., its comprehensive framework of aims and contents for teaching and learning as a collective endeavor), including its written and non-written aspects?
2. What has been the school's process of curriculum reshaping since the school began to innovate?

Chapter Two presents previous studies of this kind, as well as literature on Chilean high schools' whole curricula that contextualizes the dissertation. Chapter Three presents the theoretical framework of *school-based deliberation of infrastructure* used for studying each school's whole curriculum and the process of reshaping it. Chapter Four details the research methods. Since each school was studied separately, Chapters Five through Seven present the findings for each school, i.e., the description and analysis of each school's curriculum and how the school developed such curriculum over time. Chapter Eight closes with a discussion of the findings across the three school-cases that comes back to the study's general purpose of understanding how these three innovative schools addressed the perceived need for reshaping high school curricula.

## **CHAPTER TWO**

### **What We Know About Chilean High Schools Reshaping Their Curriculum**

This chapter provides a literature review that situates the dissertation's significance. Since my search revealed no Chilean research pursuing goals akin to this study's, the chapter begins by reviewing key U.S. school-case studies on the curriculum and its changes that offer important lessons for this study. Next, the chapter covers literature available on two areas that contextualized the dissertation: (a) the history of Chilean policies on high school curriculum innovation, and (b) key elements of Chilean high schools' whole curriculum since the late 1990s. This point in time was selected because many elements of today school-level curricula were introduced with the country's last major curriculum reform, which dates from 1998. After presenting all this literature, the chapter ends with a reflection on what is known and what remains unknown about high school curriculum reshaping in Chile, and how to best study it. This reflection prepares the stage for the research design in Chapters Three and Four.

### **U.S. High-School-Case Studies on the Curriculum and Its Changes**

Although I did not find case studies on Chilean high schools that examined their whole curriculum or curriculum reshaping processes, there have been important U.S. studies of this kind. This section presents eight of them in chronological order to review their lessons on research design and their findings. The last one is Mehta and Fine's (2015a, 2019) work, mentioned in the Preface as an inspiration for this one. I selected these eight studies for their proximity of purpose to this dissertation, or for being landmark investigations, often cited by subsequent studies as models. They did not all focus exclusively on high school curricula, nor did they all research only innovative schools. Yet, they all included high schools and had the whole curriculum among their research foci. My review paid special attention to what could be learned from these studies for examining a high school's reshaping of the whole curriculum.

**Milestone studies before the mid-1980s.** Curriculum scholars such as Pinar et al. (1995) generally mention two main periods of curriculum school-case studies preceding the mid-1980s. Before World War II, when the U.S. high school model was still being shaped, the *Progressive Education Association* (PEA) commissioned the *Eight-Year Study*, which Pinar et al. highlighted as “perhaps the major curriculum study in the history of the field” (p. 133). Around 1980, when high school enrollment surpassed 90% of U.S. 17-year-olds (Lagemann, 2000), several groups conducted large multiple-school-case studies. Among these studies were (a) *A Study of Schooling* (Goodlad, 1984), (b) *Carnegie Foundation’s Study of Secondary Education* (Boyer, 1983; Perrone, 1985), and (c) *A Study of High Schools* (Powell, Farrar, & Cohen, 1985;Sizer, 1984/2004). This subsection presents these four milestone studies.

The relevant background for the first of these studies emerged during the 1920s, when many elementary schools underwent curriculum changes inspired by Dewey’s (1900/1990) work but high schools were reluctant to do so for their potential effects on the college admissions of their graduates (Pinar et al., 1995). To tackle this stasis, the PEA established the *Commission on the Relation of School and College*, which conducted the *Eight-Year Study*, a grand experiment on high school curricula that spanned from 1933 to 1941 (Kridel & Bullough, 2007).<sup>19</sup> Thirty high schools from different parts of the U.S. were selected for their interest in progressive experimentation. More than 284 colleges and universities waived standard course and unit requirements for applicants from these schools. Each school decided what changes to make with the support of curriculum specialists hired by the PEA. For Pinar et al. (1995), the key was the freedom for experimentation, which created an exciting sense of adventure.

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<sup>19</sup> At this time, the U.S. secondary school system was in rapid expansion. By 1930, 51% of U.S. 17-year-olds were in high school. By 1940, this rate had risen to 73% (Lagemann, 2000).

Schools developed a wide range of innovations (Giles, McCutchen, & Zechiel, 1942). *Tulsa Senior and Junior High Schools*, for instance, opted for an education for democracy and for helping students to have a deep understanding of themselves (PEA, 1943). Their core curriculum “addressed topics in an interdisciplinary manner and explored the significance of each issue for both individuals and the society” (Kahne, 1995, p. 7).

The evaluation of the whole experiment was directed by Tyler (1986), who studied student progress toward the attainment of 10 major goals defined by the participant schools. These goals included: social sensitivity, aesthetic appreciation, building a philosophy of life, and a general broadening of interests (Pinar et al., 1995). Also, aiming at assessing the impact of the progressive approach on college performance, 1,475 students from the 30 schools were paired with non-participants with the same demographics, from the same communities, and attending the same colleges (Aikin, 1942). These pairs of students were followed through college, making the study “one of the largest social science experiments of its day” (Kahne, 1995, p. 6).

Although not all the schools were impressively innovative, Aikin (1942) reported two main findings: (a) graduates from the 30 schools were not handicapped in their college work, so departures from the traditional curriculum did not necessarily hurt students’ college readiness; and (b) students from the six schools that made the most significant curriculum innovations got higher grades in college than students with whom they were paired. Upon the latter result, many have understood the *Eight-Year Study* as an “experiment to determine progressive or traditional schooling as the best preparation for college” (Kridel & Bullough, 2007, p. 7). But this was not the PEA’s point. Rather, it was that “there is no one fixed pattern for a high school curriculum required for college success” (Pinar et al., 1995, p. 137). More than a comparison of groups of college-bound students, the study was an experiment in support of experimentation.



What are the lessons of the *Eight-Year Study* for this dissertation? Although in *Thirty Schools Tell Their Story* (PEA, 1943) each school reported its experience of curriculum reshaping, the study's quasi-experimental design was different from a descriptive multiple-case study so there was not much to learn from it about research design. With regard to findings, three of the study's curriculum consultants systematized several lessons that are valuable for the dissertation (Giles et al., 1942). For instance, they identified the centrality of faculty having shared educational goals for the curriculum reshaping process, and conceptualized three types of renewed courses within reshaped curricula.<sup>20</sup> Nevertheless,

[O]ne impression st[ood] out above all others: a conviction that there [was] no problem of organization, such as the making of a schedule or the conduct of a custodian, that d[id] not have a significance in the curriculum. For the curriculum [began to be] seen as the total experience with which the school deals in educating young people. (Giles et al., 1942, p. 293)

Based upon this impression, Giles et al. concluded that, essentially, curriculum reshaping entailed two deeply enmeshed types of problems. The first of these were administrative in nature and related to indispensable structures of schooling (e.g., staffing, schedules, use of spaces). The second were specifically educational and concerned learning goals, study programs, etc.

The three studies from the early-1980s shared similar goals and research designs. They were all multiple-school-case studies aiming at offering thick descriptions of the whole school experience, which the three research teams deemed as something scarce (they all claimed that most research was focused on the effects of a particular practice or program, losing sight of the

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<sup>20</sup> These three types were (a) *revisions of existing courses*; (b) *broad-fields courses*, which crossed traditional subject boundaries but staying within the corresponding field (e.g., social studies or humanities); and (c) *problem-based interdisciplinary courses*, which cut across fields, and typically used larger blocks of time (Giles et al., 1942).

whole school experience). The scholars investigated sets of schools representing the diversity of U.S. schools –not necessarily innovative schools– and they did not focus solely on the curriculum, although their broad scopes included the whole curriculum. They all shared an ethnographic approach that relied on documents, observations, interviews, and surveys, with two- or three-week visits to each school. They all had a number of pre-determined themes for data analysis, but left ample space for new themes that emerged directly from the data.

The first of these studies, entitled *A Study of Schooling*, spanned from 1975 to 1983, and was reported in Goodlad's (1984) *A Place Called School*. Tanner (2009) deemed it “the most important curriculum study in the 20<sup>th</sup> century” (p. 214) because of its comprehensiveness and its rigor. Out of the three studies from this period, this was the only one that did not focus only on high schools. It investigated 38 schools from 13 different communities, 25 of which were junior or senior high schools.<sup>21</sup>

The study classified the goals of schooling into four broad areas: (a) *academic-intellectual*, (b) *vocational*, (c) *social-civic*, and (d) *personal*. Survey and interview results indicated that teachers and parents gave higher priority to *academic* and *personal* goals, while (junior and senior) high school students prioritized *vocational* and *academic* goals. Overall, though, everybody wanted it all, which resulted in very unclear school mandates that made high schools particularly susceptible to fads and fashions. Goodlad (1984) concluded that the goals of high schooling were “a conceptual swamp” (p. 48).

When the same people were asked about which goals actually were stressed at their –or their children's– schools, they all agreed that they were the academic-intellectual goals (with

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<sup>21</sup> The research team selected 13 communities. Within these communities, they selected an elementary, a junior high, and a senior high school. The total of schools was 38 because in one community the junior and the senior high schools were unified.

personal goals being the least emphasized). This result was in sharp contrast with youth's feeling that academics were peripheral to their school experience, and the fact that teachers' main concerns were for student misbehavior, the lack of student and parent interest, and alcohol and drug abuse (none of which are academic-intellectual issues). Goodlad's (1984) conclusion on this matter was that there was a large disjunction between youth culture and high school culture, with well-intended teachers going about their business somehow detached from –and not quite connecting with– students' other lives (i.e., their social lives, etc.). He even hypothesized that “somewhere ... down in the elementary school, a subtle shift occurs. The curriculum –subjects, topics, textbooks, workbooks, and the rest– comes between teacher and students” (p. 80).

Regarding what schools actually taught, course offering data revealed that, although there were variations across schools, the study of English and mathematics significantly decreased as students moved up –from junior to senior high school– while vocational education significantly increased.<sup>22</sup> In English and mathematics, most study programs reinforced basic skills. Regarding extracurriculars, involvement in sports dropped from junior to senior high school, but there was high participation in special interest clubs. Schools did not have data on who participated in these extracurriculars, however. Goodlad (1984) deemed this point to be key because more confident students tended to benefit first –and most– from these extracurricular offerings.

Understanding the *implicit curriculum* as the teachings tacitly conveyed by the ways in which the explicit curriculum was presented and the relationships that characterized the instructional environments, Goodlad (1984) claimed that the picture was invariably the same across schools. He highlighted that students were either lectured, or worked on written

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<sup>22</sup> The unit for these comparisons was *full-time teacher equivalencies* (FTEs). In junior high schools, FTEs in English were 22% of schools' FTEs, which decreased to 18% in senior high schools. In mathematics, the decrease was from 17% to 13%. In vocational education, the increase was from 11% to 24%.

assignments most of the time. Passiveness was predominant, and “boredom [was] a disease of epidemic proportions” (p. 242). The exceptions were vocational education, the arts, and physical education, all of which students were said to enjoy.

The next study, the *Carnegie Foundation’s Study of Secondary Education*, examined 15 public high schools, and was reported by Boyer (1983), who based his report on *portraits* of the high-school-cases, later published by Perrone (1985). Lightfoot’s (1983) *The Good High School* was related to this study as her book included the portrait of *Brookline High School*, which she conducted for Perrone (1985). Overall, the study asserted that –after the demographic, cultural, and value transitions of the 1960s and 1970s– U.S. high schools had returned to a conservative-utilitarian view of education that only focused on academic and vocational goals.

The Carnegie study’s major conclusions with regards to the curriculum were four. First, and in line with Goodlad (1984), high schools had too many goals, and were overwhelmed by increasing responsibilities. They lacked a clear and vital mission that gave them focus. Second, “structurally, curriculum appear[ed] very much as it ha[d] been for most of the last 50 years” (Boyer, 1983, p. 646). Moreover, “curriculum-related discussion [was] almost nonexistent, and efforts to reduce fragmentation through interdisciplinary activities [were] rare” (p. 647). Third, the main novelty was a “large number of electives that were not present a decade or two ago” (p. 646). Fourth, few principals saw themselves as capable of leading curriculum deliberations, most of whom were too busy responding to administrative demands.

*A Study of High Schools* also examined 15 high schools, 11 public and 4 private. This study was reported in two books of different genres.<sup>23</sup>Sizer’s (1984/2004) *Horace’s Compromise*

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<sup>23</sup> There was a third book related to the study: Hampel’s (1986) *The Last Little Citadel*. I did not include this book in the review because it did not touch upon the study’s empirical findings. It only presented the study’s literature review (on the history of the U.S. high school).

had a gripping narrative style that, based on the study's findings, aimed at triggering reflection. Powell et al.'s (1985) *The Shopping Mall High School* was more like a common study report. Both books exposed the gap between ideals about high schooling and its reality at the time, largely determined by traditional routines and structures.

In *Horace's Compromise*,Sizer (1984/2004) portrayed a typical U.S. high school through the lens of a fictional teacher (Horace), and a fictional student (Mark). In doing so, he showed that "taking subjects in a systematized, conveyer-belt way [was] what one d[id] in high-school" (p. 83). What mattered most were the rituals, of which graduation was the most important. Because high school teachers and staffs were so specialized, many people knew very little about each student. The overall result was that students "c[ould] rarely make any sense of the whole" (p. 92); they just went through a bunch of unrelated offerings. For Sizer, the underlying problem was "the belief in systems to run lives" (p. 205), which justified building schools as rational organizations with hierarchical bureaucracies.

Powell et al. (1985) portrayed the U.S. high school as a *shopping mall* because they theorized that making accommodations to give each student what he or she wanted had become the primary curriculum development criterion. They posited that the U.S. public had three strong expectations for high schools: everybody should attend them, nearly everybody should graduate, and nearly everybody should find the experience constructive. Since devising a curriculum that met these three expectations was nearly impossible, high schools had responded with (a) *variety*, (b) *choice*, and (c) *neutrality*. *Variety* was horizontal (different subjects), vertical (diverse difficulties for the same subjects), extracurricular (to make everyone feel successful), and complementary (the services for addressing social and emotional problems). *Choice* meant that the burden of opting within the latter variety was on students and their families. *Neutrality* was crucial because, to avoid problems, there had to be a "neutral atmosphere where *do-your-own-*

*thing* prevail[ed]” (p. 3). The study’s authors concluded that, in these circumstances, the only sustainable innovations were those that expanded the already existing accommodations.

What lessons can be drawn from these three studies from the early 1980s? With regard to the research design, these studies’ chiefly –although not purely– qualitative, heavily descriptive method proved to be appropriate for describing and analyzing a school’s whole curriculum. On data analysis, Powell et al.’s (1985) use of a metaphor for illustrating the key aspects of their theory was also a valuable lesson about how to present findings persuasively.

Regarding findings, there are several important lessons about a high school’s whole curriculum. A first lesson concerns the general aims of high schooling, which all the studies showed to be vague due to the initiatives by multiple community members attempting to satisfy their diverse expectations. A byproduct of this situation was the growth of variety and choice (e.g., electives) in a market-like way. Second, there seemed to be a large gap between discourses about the high school’s curriculum, and its concrete reality, dominated by compartmentalized academic silos in which students’ whole selves had little space. Third, most participants in high schooling adapted to the latter situation, with students complying, and teachers compromising. In this context, curriculum deliberations were almost nonexistent and mostly about creating more variety and choice. Finally, extracurriculars and courses on vocational education, the arts, and physical education were central for students’ whole high school experience.

**Studies from the last three decades.** The years in which the results of the latter three studies were published –1983 to 1985– were overshadowed by the release of *A Nation at Risk* (NCEE, 1983), the report that marked the U.S. shift toward standards-based policies for improving educational quality. In the context that followed, “scholarship ... moved away from the kind of holistic and humanistic perspectives which characterized the [early-1980s] work” (Mehta & Fine, 2019, p. 3). Hence, although the last decades have seen a myriad of high school

reshaping initiatives (and several books on them<sup>24</sup>), there have been few comprehensive school-case studies attending to the whole curriculum. This subsection reviews four high-school-case studies from the last three decades, the last of which is Mehta and Fine's recent investigation.

The first and second studies reviewed, by Muncey and McQuillan (1996), and by Darling-Hammond, Aness, and Ort (2002), both investigated high schools that were a part of the *Coalition of Essential Schools* (CES). This was an association of schools founded in 1984 based uponSizer's (1984/2004) ideas in *Horace's Compromise*. What brought these schools together were 10 shared principles about what a good school should be, and the premise that each school should decide how to craft these principles into practices adapted to its own context.<sup>25</sup>

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<sup>24</sup> For instance: *DOC: The Story of Dennis Littky and His Fight for a Better School* (Kammeraad-Campbell, 1989); *The Power of Their Ideas* (Meier, 1995); *One Kid at a Time* (Levine, Peters, Sizer, Littky, & Washor, 2002); *Deeper Learning: How Eight Innovative Public Schools Are Transforming Education in the 21<sup>st</sup> Century* (Martinez & McGrath, 2014).

<sup>25</sup> The CES ceased to exist on March 2017 (see: <http://essentialschools.org/farewell/>). Nonetheless, many present innovation initiatives such as the *Buck Institute* and *High-Tech High* were CES affiliates and continue to identify with its 10 common principles:

1. The school should focus on helping young people learn to use their minds well.
2. The school's goals should be simple: that each student masters a limited number of essential skills and areas of knowledge.
3. The school's goals should apply to all students, while the means to those goals will vary as those students themselves vary.
4. Teaching and learning should be personalized to the maximum feasible extent.
5. The governing metaphor of the school should be "student as worker", rather than the more familiar metaphor of "teacher as deliverer of instructional services."
6. Demonstration of mastery teaching and learning should be documented and assessed with tools based on student performance of real tasks.
7. The tone of the school should explicitly and self-consciously stress values of un-anxious expectation, trust, and decency.
8. The principal and teachers should perceive themselves as generalists first and specialists second.
9. Ultimate administrative and budget targets should include student loads that promote personalization.
10. The school should demonstrate non-discriminatory and inclusive policies, practices, and pedagogies.

Muncey and McQuillan's (1996) school ethnography was the first major documentation of the CES. They aimed at understanding how 8 of the 12 founding high schools interpreted and implemented the common principles. Four of the schools were *school-within-a-school projects*, a common way of piloting CES' ideas with a fraction of the student population and some faculty. The study spanned from 1986 to 1991 and relied on interviews, observations, a survey of 1,500 students, and the examination of several documents and artifacts.

A first finding was that curriculum reshaping was very difficult (and uneven) because at seven of the eight schools "there was no consensus that fundamental changes in school structure ... needed to occur" (Muncey & McQuillan, 1996, p. 158). Interestingly, in all schools "CES membership increased the entire school community's reflectiveness about their work and the school's mission" (p. 163). However, this "increased ... reflection often highlighted differences among faculty concerning the school's mission, in effect disrupting the unquestioned assumption of shared purposes, values, and beliefs" (p. 150). Thus, the study found that building a shared vision was central for school-wide innovation, and this could not be taken for granted.

Second, the study showed that all schools at some point experienced tension between deepening the understanding and sophistication of the change, and broadening its extension (so it reached more classrooms and/or areas of the schools). At this point "the impediments to deepening reform efforts ... seem myriad, and the advantages of expansion all too apparent" (Muncey & McQuillan, 1996, p. 163). Hence, most opted for breadth over depth.

The few schools that were successful at implementing the CES' common principles did four things. First, they focused on discussing the philosophical assumptions of the innovation. Second, they created opportunities to help faculty and administrators develop the skills needed to implement the espoused philosophy. Third, they created structures to support the reform (e.g., special time allotments for working in redesign committees). Finally, they gave careful attention



to political concerns because “reform rhetoric may stress pedagogical, curricular, and structural priorities, but because [... it] involves shifts in power, prestige, and responsibility, [... it] has political consequences” that affect the whole school (Muncey & McQuillan, 1996, p. 278).

Darling-Hammond et al.’s (2002) study examined the reform process at *Julia Richman High School* in New York City (NYC), a large, comprehensive high school that was broken down into six small high schools. These schools were organized around the CES’ principles, and most adapted their designs from *Central Park East*, a CES model school in NYC (Meier, 1995). Data were collected in three waves over seven years: 1992-1994; 1995-1996; and 1997-1998, which made this investigation the first longitudinal study on this type of school reshaping. Quantitative data came from NYC school record data, and qualitative data came from the over 200 semi-structured interviews, observations, and documents and samples of student work. The latter data were analyzed through an iterative process that involved open coding and conceptual clustering.

In spite of initial practical difficulties at the new high schools (e.g., with school locations), results were that, “within a short time all of the schools appeared to have succeeded in engaging more students in an educational process” (Darling-Hammond et al., 2002, p. 646). For instance, 9<sup>th</sup> grade attendance rose from 66% at the former *Julia Richman High School* in 1992 to an 86% average for the six small schools in 1993. The whole reform yielded academic gains (as measured by standardized tests) that were significantly higher than NYC’s averages.

The curriculum reshaping side of the reform had several elements. First, structures were redesigned for greater personalization (e.g., teachers taught fewer groups of students for longer periods of time). Second, study plans were constructed around habits of mind, aiming at developing core academic skills through demanding research assignments, discussions and demonstrations, end-of-course projects, etc. In this sense, the schools “construct[ed] a curriculum that explicitly taught students how to study, how to approach academic tasks ... and how to

evaluate their own and others' work" (Darling-Hammond et al., 2002, p. 658). Third, learning was assessed in various ways, which included portfolios, public defenses of these portfolios, etc. Fourth, "all the schools place[d] students in external learning experiences, such as internships and community service activities, that [... were] accompanied by seminars that help[ed] students to process what they [were] learning" (p. 660). Finally, the help of external networks –such as the CES– was key for all the latter curriculum development. This aid also resulted in a surprising level of practice consistency across the six small schools.

The third school-case study from the last decades, by Huberman, Bitter, Anthony, and O'Day (2014), was a part of a set of studies conducted by the *American Institutes for Research* for the *Hewlett Foundation's Deeper Learning Initiative*. This effort aims at moving forward a *deeper learning agenda* for U.S. high schools, understood as the promotion of teaching 21<sup>st</sup> century skills in the cognitive, inter- and intra-personal domains to every student (Pellegrino & Hilton, 2012). A key part of this initiative was the constitution of the *Deeper Learning Network*, which groups 10 school networks with "a mature and at least moderately well-implemented approach to promoting deeper learning" (Huberman et al., 2014, pp. 3-4).<sup>26</sup> The reviewed study offered a picture of the strategies and structures for promoting deeper learning at 19 high schools belonging to the *Network*. It was based on interview and focus group data with teachers, administrators and students, supplemented with data from a teacher survey.

In a nutshell, Huberman et al.'s (2014) findings were two. First, the schools used a wide range of strategies to promote deeper learning, with the most common one being project-based learning. Second, most schools developed specific school structures for supporting these

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<sup>26</sup> The school networks participating in *Hewlett Foundation's Deeper Learning Network* are: (a) *Asia Society*, (b) *Big Picture Learning*, (c) *ConnectEd*, (d) *EdVisions*, (e) *Envision Schools*, (f) *Expeditionary Learning*, (g) *High-Tech High*, (h) *International Network for Public Schools*, (i) *New Tech Network*, and (j) *New Visions for Public Schools*.

strategies. These included personalized learning environments (at the 19 schools studied), advisory classes (at 16 schools), and alternative scheduling (at 14 schools). The study's main limitation was that it was completely based on self-reported data; it did not include observations.

Finally, Mehta and Fine's (2015a; 2019) study *In Search of Deeper Learning* spanned the time period from 2010 to 2015. Its goal was "to map the landscape of non-elite public high schools that [were] enacting deeper learning for all of their students" (Mehta & Fine, 2015a, p. 10), assuming *deeper learning* as "a shorthand term for the skills, understandings, and dispositions that develop as a result of engaging in cognitively ambitious tasks" (Mehta & Fine, 2012, p. 35). Landmark studies from the early-1980s such as Lightfoot's (1983) *The Good High School* andSizer's (1984) *Horace's Compromise* were cited as models for this research.

The 30 high schools studied were chosen by Mehta and Fine (2019) for having a reputation of being leaders in promoting deeper learning. Many of them were a part of the CES, or belong to *Hewlett Foundation's Deeper Learning Network* (see the prior Footnote). In this sense, the study "capture[d] the matured version of the last generation of school reform, including some of the early charter models and some of NYC small schools of choice" (p. 298). It was an ethnographic study based on classroom observations, interviews, and document collection. The length of the school visits varied. At 20 of the 30 schools the visits lasted for 1-4 days; at 6 schools they lasted for 5-10 days; and at the 4 school-cases that ended up being the core of the study they lasted for 20-30 days. The general procedure was to spend the first days observing and shadowing students, and once there was an overall picture of certain patterns, Mehta and Fine moved toward the interviews, staying at the schools until reaching saturation.

An essential finding was that "there were startling gaps between aspirations and realities" (Mehta & Fine, 2015a, p. 10). Even though the schools had been "specifically recommended because of their focus on critical thinking, we ... observed students consistently engaged in

ambitious work in only about one in five classrooms” (Mehta & Fine, 2012, p. 35). This observation “h[eld] true even for schools whose structures reflect[ed] a particularly innovative or student-centered vision” (Mehta & Fine, 2015a, p. 10).

In essence, the problem seemed to be a lack of what Cohen (2011) called *educational infrastructure*, i.e., institutional guides or scaffolds for coordinating the activities of teaching and learning. For Mehta and Fine (2015a), “schools on the whole d[id] not have the mechanisms to translate their espoused values to their enacted practices” (p. 10), which explained why teachers in the same schools diverged dramatically in their instructional prowess. Consequently, simply removing high-stakes testing was “by no means ... sufficient” (p. 14). Schools needed to arrive at “clear and thick shared agreements about the kind of teaching and learning they ... aim[ed] to produce” (p. 14) so strategic choices could be made with regards to: the use of space, time, and personnel; which external pressures to downplay or resist; etc. Also, “there [were] ... different kinds of infrastructure which [were] linked to distinct visions of what schools should be like and what students should know and be able to do” (Mehta & Fine, 2015b, p. 485). In this sense, “infrastructure is not a single, but a plural notion” (p. 507).

Building upon the idea of diverse infrastructures, Mehta and Fine (2015a) clustered the schools studied into three groups sharing “a set of underlying values as well as a theory of action about how these values can be instantiated” (p. 11). These groups were: (a) schools developing deep disciplinary knowledge, focused on *mastery*; (b) schools fostering students’ sense of themselves, focused on *identity*; and (c) schools promoting 21<sup>st</sup> century skills, focused on *creativity*. Overall, Mehta and Fine found it difficult to find the sweet spot, indicating that “schools that were more progressive sometimes struggled to ensure that students consistently mastered basic academic content, whereas the more traditionally academic schools struggled to make their material authentic and connected to students’ interests” (p. 11).

Another key finding was that the deepest learning seemed to occur in the *periphery of the curriculum*, a concept coined by Mehta and Fine (2015a, 2019) to refer to electives and extracurriculars. What they observed was that this context “often harness[ed] the power of an apprenticeship model” (2015a, p. 12) in which students could choose and there was no pressure for content coverage. Thus, a relevant question was how could schools infuse more of what happened in the periphery of the curriculum into their academic core.

What are the lessons of these studies from the last decades for this dissertation? Concerning the research design, one lesson is that –although very difficult for its time demand– the ideal for studying a school’s process of curriculum reshaping would be a longitudinal study such as Darling-Hammond et al.’s (2002). For studying the whole curriculum of innovative schools, Mehta and Fine’s (2012, 2015a, 2019) research showed the importance of not relying only on interview –i.e., self-reported– data to go beyond this type of schools’ narratives of groundbreaking transformation.

As to findings, the studies yield several important lessons. First, when it comes to curriculum reshaping, there have been large gaps between aspirations and reality. Even the most famous, best-regarded innovative school models have had difficulties for enacting their ideals due to a lack of infrastructure. Second, the reshaping processes have been far from easy, and those schools that have been successful have paid careful attention to the –often overlooked– philosophical and political dimensions of the change processes. Third, the models examined – which were those typically promoted as 21<sup>st</sup> century schooling– have not been many, and they shared some features: (a) they were all small (when compared with typical U.S. comprehensive high schools); (b) they had integrated cognitively ambitious tasks in their daily teaching; and (c) they had adopted project-based learning as the most common strategy to promote deeper learning, devising personalized learning environments and alternative scheduling for supporting

it. Fourth, in spite of the latter shared features, curriculum reshaping could go in various directions depending on the values and vision espoused. Mehta and Fine (2015a) identified three major, possible emphases: *mastery*, *identity* and *creativity*.

### **The History of Chilean Policies on High School Curriculum Innovation**

Even though there have not been Chilean school-case studies on the curriculum like the U.S. studies reviewed in the prior section, the country has made two important national efforts for promoting structural high school innovations (Weinstein, 1999). These efforts constitute an important background for the dissertation. I found 10 publications that allowed me to reconstruct a brief history of these Chilean innovation attempts.

The first national effort for reshaping high school curricula was the 1940s *Plan for the Gradual Renewal of Secondary Education* (henceforth, *Renewal Plan*). This policy's goal was to scale the experience at *Liceo Experimental Manuel de Salas* (henceforth, *Manuel de Salas*) (Zemelman, 2010). *Manuel de Salas* was *Universidad de Chile*'s laboratory high school; something akin to Dewey's (1900/1990) laboratory school, but at the secondary level. Everything was led by Irma Salas, who studied her doctorate with Dewey, served as principal at *Manuel de Salas*, and chaired the committee that designed and implemented the *Renewal Plan* (Caiceo, 2014). The whole effort was driven by Deweyan progressive ideas.

According to Barrios (1983), *Manuel de Salas* was a beacon for Chilean secondary education. Experiments there served to develop high school practices and structures that now are a norm in Chilean high schools. Some of the contributions from *Manuel de Salas* were (a) co-education at the secondary level; (b) the distinction between core and elective courses; (c) school counseling and the profession of school counselor in Chile; and (d) the roles of the *jefe de UTP*

(or academic coordinator)<sup>27</sup>, and *profesores jefe* (or head teachers), with the corresponding emphasis in the life of a *curso* (including *curso* council).<sup>28</sup>

The *Renewal Plan* aimed at having several laboratory high schools like *Manuel de Salas* that tried out new methods and structures that could later be replicated in other high schools (Guzmán, A., 1995). It started in 1945 with four high schools in Santiago, and then added seven more high schools from Antofagasta, Quilpué, Valparaíso, Talca, Chillán, Concepción, and Temuco (Zemelman, 2010). By the end of the 1940s, however, the program was cut down to seven high schools, and in 1953 a new government replaced it with the *Single High School* program. This was the beginning of standardization in Chilean secondary education.

To understand the previous policy shift it is important to consider that less than 10% of high school-aged Chileans attended school at the time of the *Renewal Plan* (see Figure 2.1). Hence, the premise of the *Renewal Plan* that secondary schools did not attend to students' interests and only prepared them for college did not reflect most Chilean youth's reality (Zemelman, 2010). As indicated in Chapter One, the Chilean high school system only began to expand to include the majority of the population in the late 1960s. The 1950s policy shift evinced the beginning of a change in priorities that led to this expansion. In this vein, the focus of high school policies from the 1960s until the 1990s was on enrollment, which increased from around 15% of the youth between 15 and 18 years old in 1960 to around 80% of that age group in the 1990s.

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<sup>27</sup> *Jefe de UTP* means head of the *technical-pedagogical unit* (UTP for its Spanish initials).

<sup>28</sup> As mentioned in Footnote 16, Chilean students are organized in groups of 30 to 40 students called *cursos*. A *curso* usually shares a common schedule and a classroom, so teachers move between classrooms to teach their classes, not students. The *profesor jefe* is the responsible for a *curso*, typically meeting with the *curso* at the beginning of each school day, in addition to having some class periods per week for addressing *curso*-level issues. For more details on a typical Chilean high school's organizational structure, see Appendix A.

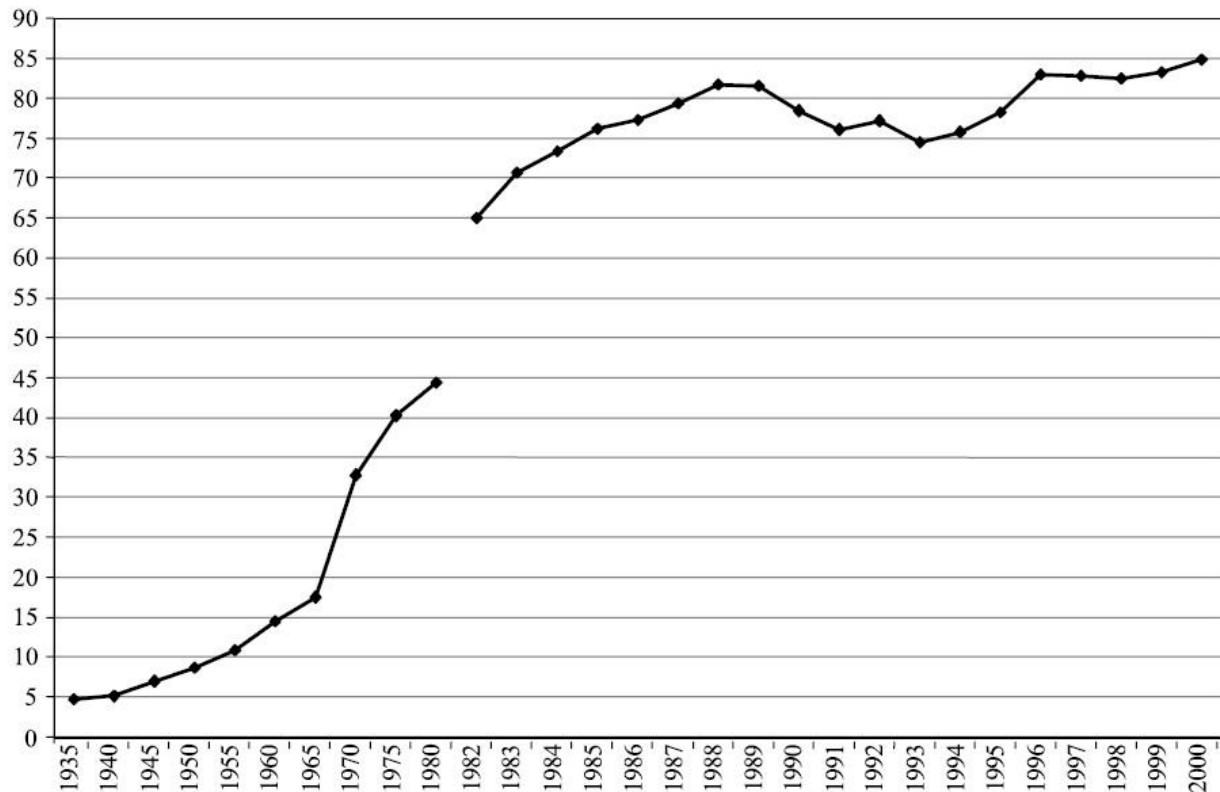


Figure 2.1. Percentage of Chilean high-school-age youth in high school (Bellei, 2003, p. 218).<sup>29</sup>

The next national effort for reshaping high school curricula was the *Montegrando Project* (henceforth, the *Montegrando*) from 1998 to 2004. This second high school innovation policy was one of the components of the 1990s educational reform, which aimed to improve the quality of the whole Chilean education system. Apart from the *Montegrando*, this reform included the 1990s curriculum reform and the *Full School Day* policy, which was an extended school day program that made possible the *class periods of free disposal* mentioned in Chapter One.

The *Montegrando* aimed at supporting some high schools to become models for the rest of the system, like the 1940s laboratory high schools. Differently from the *Renewal Plan*, however, the *Montegrando* intended to diversify the Chilean high school system to respond to the country's

<sup>29</sup> The discontinuity in the graph between 1980 and 1982 is because until 1980, high-school-age was considered 15 to 19 years old. Then, it changed to 14 to 17 years old.



diverse realities (Cox & Valdés, 2005). In this vein, the *Montegrande* had a focus on reinventing secondary education, and an emphasis on the appropriateness of the innovations by relying on local design and implementation (MINEDUC, 2000). In the words of the *Montegrande*'s first national coordinator: "The *Montegrande* aim[ed] at promoting innovations designed by public or publicly-subsidized school communities –and their support networks– with the potential of becoming valid ideas for the renewal, improvement and diversification of the whole secondary education system" (Weinstein, 1999, p. 162).

Concretely, the Ministry of Education (MINEDUC) invited all publicly-funded high schools to propose innovations, which could be curricular, pedagogical, or of any kind that schools deemed relevant. The assumption was that innovations had to come from below (i.e., from the schools), and the MINEDUC's role was to create the conditions for them to thrive (Weinstein, 1999). It was important that innovations were replicable, and schools submitting proposals had to prove their capacity to implement them. There were 222 applicant-schools, and 51 of them were selected. They came from a variety of contexts, and offered both college-bound and technical-vocational upper secondary tracks (see Footnote 8). A problem, however, was that "the quality of the applications was much lower ... than expected" (MINEDUC, 2000, p. 14), which the MINEDUC interpreted as a sign of the school system's weak capacity for innovation, and the necessity for more school support than initially planned.

After six years, the accomplishment of the *Montegrande* was an array of innovations in 42 of the 51 schools selected (MINEDUC, 2004). Nine high schools could not implement their proposals for various reasons. Depending on their extension and depth, these 42 innovations –and the schools in which they happened– were classified as: (a) *innovative institutional projects* with the potential to become educational models, which were comprehensive school transformations involving the curriculum, instruction, and school management; (b) *innovations in a specific area*

(e.g., in pedagogy, but not in other areas); and (c) *small innovative initiatives* that targeted specific problems (MINEDUC, 2004). The 15 innovative institutional projects, which were those that attained the *Montegrando*'s original goal of offering models for the publicly-funded school system, were grouped into four thematic fields that gave an identity to these projects. These fields were (a) *preparation for work and entrepreneurship*, (b) *track diversification in secondary education*, (c) *multicultural education*, and (d) *whole-person education* (MINEDUC, 2004).

The abovementioned results were not easy to accomplish because of the quality of the initial applications, the heterogeneity of schools' starting points, and the 1990s curriculum reform (MINEDUC, 2004). The latter point relates to the fact that many high schools participating in the *Montegrando* proposed –and dreamed of– fully developing a curriculum of their own, but the late 1990s curriculum reform was issued in parallel with the *Montegrando*. Hence,

[W]hen the high schools began to implement their projects, it was established that the new curriculum framework was mandatory for all the country's schools ... [and] curriculum innovation was restricted to the contextualization of the proposed learning goals ... and schools' integration of their own objectives and themes through the class periods of free disposal. (MINEDUC, 2004, p. 13)

The only research available on the *Montegrando* was conducted by Ferrada and Villena (2002), and Ferrada (2003). These investigations were single- and multiple-case studies on the evolution of school proposals to the *Montegrando* based on document analyses. The first study analyzed the idea of innovation in one *Montegrando* application, its revision by the MINEDUC's advisors, and the final project to be implemented. The second one compared four *Montegrando* applications with the final projects after the MINEDUC's revisions. Both studies found important levels of intervention by the MINEDUC advisors, which included changes in the core of the proposals. Initial applications were critical and locally-grounded, and final projects were more

job-market-oriented. My search did not reveal research on the actual innovations or the processes lived at the schools during the years of the *Montegrande*.

This lack of further research on the *Montegrande*'s realizations led me to approach Ximena Valdés, the national coordinator of the *Montegrande* from 1998 to 2003. In a personal conversation, she made three points. First, she verified that problems associated with school management and the quality of the projects were pervasive. This was true even at many of the schools that hired consultants to help them, which demonstrated that the lack of capacity was a problem of the whole system, not only of the schools themselves. Second, she confirmed that the late 1990s curriculum reform made things harder because the *Montegrande* encouraged creativity while the new learning standards introduced constraints not initially considered. Finally, she shared that the *Montegrande* ended abruptly in 2004 due to political reasons, which is why the government never promoted research on the 15 schools that developed innovative institutional projects. Finally, she commented that she believed that the current promotion of innovation by the NGO *Fundación Chile* continues the spirit of the *Montegrande* (Aziz & Petrovich, 2016).

There have been no new policies related to innovation after 2004. As mentioned in Chapter One, the 2006 and 2011 student protests sparked a concern for students' depth of learning that resulted in a focus on improving instruction so all students attain the mandated standards (Espínola & Claro, 2010; Montt, 2009). The latter focus has created new interest for pedagogical innovation, yet provided no concrete policies or resources for promoting it. Curriculum innovation has been even less of a policy concern (Espinoza et al., 2018). In spite of the need for structural changes in line with the dissertation's research problem, and inclusion policies related to various types of diversities that require curricular changes (Rojas, Falabella, & Alarcón, 2016), the general focus has been on improvement. This situation matches with Hargreaves' (2009) depiction of the global context for educational change as having become

*tighter, harder, and flatter*, i.e., more top-down controlled, evidence-based, and focused on narrow literacy and numeracy goals. Such is the context in which the schools studied have reshaped or are reshaping their curriculum.

This brief history of Chilean policies on curriculum innovation indicates four things relevant for this study. First, the concept of innovation has evolved over time. Innovation efforts from the 1940s were based upon Dewey's student-centered ideas, but the expansion of high schooling to the majority of the population enlarged this idea toward meeting contextual needs appropriately. Second, widespread claims for equity have entailed a standardization of education that now hinders structural curricular innovations. Third, the capacity for innovating has been generally low, not only in the schools but also among curricular consultants. Finally, history also reveals that, notwithstanding the obstacles, there have been some Chilean high schools that have succeeded at innovating on their curriculum that should receive more scholarly attention.

### **Key Elements of Chilean High Schools' Curriculum Since the Late 1990s**

Given the current situation for curriculum innovation, this section presents 27 publications on various elements of Chilean high schools' whole curriculum since the 1990s that, like the prior history, help to contextualize the dissertation. Most of these elements –such as schools' use of the class periods of free disposal– were presented in Chapter One, when introducing the central documents in the Chilean curriculum structure. In line with the claim that “attention to school-level curriculum issues has been scarce, and preparation of curriculum specialists for helping schools to develop their own curriculum has been meager,” it must be noted that only 17 research projects underlay these 27 works. The largest projects produced more than one publication, and seven of the publications were reflective essays based on previous research.

**Goals of schooling in the institutional educational projects.** All Chilean schools are expected to have an *institutional educational project* (PEI for its Spanish initials) that declares

the school's formative goals. Developing this project should be a school's first deliberation exercise (Lavín & Del Solar, 2000), as this document should give coherence and meaning to all of the school work (MINEDUC, 2014). Research on PEIs –and the goals of schooling– has been limited and recent, however. All of the research I located was from 2012 on.

The largest investigation of PEIs was Galerna's (2012) content analysis of 761 PEIs (i.e., the PEIs of around 8% of Chilean primary and secondary schools). Findings revealed that very few PEIs referred to their school context for defining the school's goals. Specificity around the theoretical bases underlying a PEI was also scarce.

A year later, the MINEDUC (2013b) issued a synthesis of Galerna's (2012) study with its own reflections. This work argued that, although other surveys indicated that educators valued their PEI as a guide for school work, most PEIs were a collection of unrelated statements, and only half of them offered concrete guidelines for teachers' work. MINEDUC's reflections also stressed that, in most cases, PEIs could have been written for any context.

Building upon the premise that in market-based school systems –like the Chilean system– PEIs should express the diversity of educational projects (and aims of schooling), Villalobos and Salazar (2014) studied the central features of schools' PEIs as summarized in MINEDUC's information website ([www.mime.mineduc.cl](http://www.mime.mineduc.cl)). They found that, although one would expect a diversity of PEIs, official data showed that the vast majority of the schools were oriented toward academic excellence, or stressed values or whole-person education. More public schools were arts- and sports-oriented than other types of schools; more publicly-subsidized schools were values- and religiously-oriented; and more private schools were foreign-languages- and college-oriented, but the central conclusion was that Chilean schools' PEIs were fairly homogeneous.

Based upon the latter works, the MINEDUC (2015c) stated that “the latest evidence that we have ... shows that PEIs tend to be homogeneous in their content, are updated infrequently,

and parents know little about them” (p. 5). In short, the available research demonstrated that, in spite of idealized accounts of the diversity of Chilean schools and the role of the PEI in each school’s dynamics, the reality was that these documents were fairly standardized, unrelated to school contexts, and offered little concrete guidance for everyday school work.

### **Contextualization of the national learning goals in schools’ own programs and plans.**

As explained in Chapter One, Chilean schools have, since the 1990s, had the flexibility to develop their own study programs and plans that present a contextualization of the mandated learning standards (Pascual, 2001). Hence, a second element of Chilean high schools’ whole curriculum is if—and how—schools have developed their own study programs and plans.

The first research project on this element was based on MINEDUC’s database, and indicated that only 12% of the schools from Santiago had developed their own programs and plans (Sandoval, 1999). Most of these schools were publicly-subsidized or private, i.e., few public schools developed programs and plans of their own. The study also showed that the MINEDUC did not have a strategy for helping schools to do this. Funding had gone to the implementation of MINEDUC’s centrally-developed, optional programs and plans.

A second research project examined this work at 27 schools that had developed their own study programs and plans. Meza, Pascual, and Pinto (2002) analyzed the processes used for this work through a survey answered by 267 teachers and 69 administrators from these schools. Results indicated that, basically, schools adapted MINEDUC’s proposed programs and plans. Regarding participation in the process, the only clear pattern was that educators worked by academic departments. In general, educators were motivated for this work, but concrete channels for participation were not clear, and professional development was deemed as deficient.

Meza et al. (2003) presented a content analysis of the 286 study programs and 97 study plans developed by the previous 27 schools. This work revealed that only private schools

developed new study programs, while public and publicly-subsidized schools almost copied MINEDUC's. Most of the novelty was in religious education. Regarding subjects, the only innovations when comparing these schools' plans with MINEDUC's proposed plans in Table 1.1 were computer science, foreign languages other than English, and strategies for studying.

Two other publications stemmed from the latter research project. Milla (2004) focused on 3 of the 27 schools, and found that they had difficulties for thinking comprehensively and creatively about the curriculum because of (a) excessive departmentalization that thwarted general analyses of the school curriculum, and (b) the extension of the national curriculum framework (i.e., "minimum contents were, in practice, maximums" [Milla, 2004, p. 149]). Pascual (2001) claimed that Chilean schools did not have *a culture of curriculum construction*, and building it would require a different teacher training. He understood this culture as *a school's institutional habit of reflecting and deliberating about what is worth teaching and why*.

For Erazo (2001), contextualizing the national curriculum framework at each school entailed three steps: (a) developing PEI-based orientations for this work, (b) developing grade-level programs for each discipline that are coherent with the PEI-based orientations (i.e., that are consistent with the school's vision), and (c) building school day plans that complement disciplinary programs with additional activities or subjects aligned with the PEI. She also asserted that, based on the available evidence, this process required "curricular construction at the institutional level for which [teachers have] had little experience" (Erazo, 2001, p. 269). Thus, she was in fundamental agreement with Pascual (2001).

Recently, Espinoza et al. (2018) highlighted the little emphasis that has been given to the space that schools have within the present two-tiered curriculum format for developing their own programs and plans. They examined two experiences of these developments at a publicly-subsidized K-12 school and a public college-bound high school. In both cases, the researchers

relied on observations of meetings for program and plan development, and interviews with key actors. The first case showed that faculty did not have the technical skills needed for this work. They did not know the national curriculum framework well, nor their own PEI. The second case showed that, unless all faculty are involved (because the work was done by a few teachers), the development of own study programs and plans did not have much impact in the daily classroom work at the school.

The latter body of work was consistent with the literature on school PEIs. Together, they indicated that Chilean schools have had serious difficulties for building educational projects that then translate into school-based adaptations of the national learning goals.

**Use of the class periods of free disposal.** If Chilean schools do not develop their own study programs and plans (i.e., they adopt MINEDUC's programs and plans), they still have six weekly class periods of free disposal to offer their own arrangements (see Table 1.1). The use of this flexible time constitutes a third element of Chilean high schools' whole curriculum on which it was important to review the available literature.

DESUC (2005) assessed the accomplishments of the *Full School Day* policy with a survey answered by a nationally representative sample of educators, students, and parents. Results for secondary schools indicated that (a) schools had more class periods of mathematics and language, and less English, art, music, religious education, and philosophy than mandated; (b) the most common uses of the class periods of free disposal (apart from more mathematics and language) were preparation for college-entrance examinations, some kind of values education, and sports; (c) students said that they would like more time for recreation, sports, and values education; (d) parents valued the *Full School Day* policy because students spent more time at school instead of being in the streets or alone at home; and (e) one of the *Full School Day* policy's most relevant effects had been that both parents could work.



Building upon these results, OPECH (2007) and Martinic (2015) wrote reflective essays. OPECH criticized that most research on the use of the class periods of free disposal explored the relationship between the mere existence of these periods (i.e., the extension of the school day thanks to the *Full School Day* policy) and student results in standardized tests. Most research did not explore the curricular and pedagogical aspects of what was done with these class periods. Martinic (2015) reflected that, when the *Full School Day* policy began, “schools considered chiefly students’ learning needs and the staff’s possibilities for offering courses. Gradually, this evolved into giving more importance to the core curriculum requirements” (p. 488).

Martinic’s (2015) last reflection coincided with the results of MINEDUC’s (2013c) research on the coverage of mathematics and language learning standards for 9<sup>th</sup> to 12<sup>th</sup> grade. This study was based on a survey answered by a stratified sample of 2,430 teachers, and an analysis of 96 sets of annual class records from 12 schools in diverse contexts. Findings were that, on average, schools covered 78% of what is specified in the national curriculum framework for these grades, with less coverage in mathematics than in language (73% and 82%, respectively). As a result, all types of schools taught more class periods of mathematics and language than is mandated, with private schools teaching even more than the rest. Evidence also showed that standardized tests “stressed curriculum coverage either by forcing reviews of the tested contents, or by encouraging neglect of non-tested contents. This was especially true in language, where writing took precedence over oral communication” (MINEDUC, 2013c, p. 8).

Recently, Castillo and Martínez (2017) studied the use of the class periods of free disposal through an online survey responded by 2,483 schools. Results indicated that decisions about the use of this time were made mostly by principals, *jefes de UTP*, and teachers, with little or no student or parent participation. As expected, all high schools used some of this time for reinforcing mathematics and language. However, “the way in which schools used their class

periods of free disposal differed according to school characteristics” (pp. 5-6). Proportionally, more public schools used some of this time for arts and sports than other types of schools.

In sum, studies indicated that the lack of a culture of curriculum construction also was apparent in how schools used the flexible time allotted to them. This element showed the pervasive influence of standardized testing and college-entrance examinations in high school curricula, as well as the lack of student participation in decisions about the use of this time (with parents chiefly concerned for youth to be at school so they can work). Despite these points, research also revealed some differences by school type that coincided with the findings of research on PEIs. In this sense, maybe the minor differences between school types –as expressed in school PEIs– are not embodied in their approach to the core curriculum but in how they use the class periods of free disposal not dedicated to more mathematics and language.

**Citizenship education.** Since 2016, all Chilean schools are required to have a plan for promoting citizenship education, a fourth key element of Chilean high schools’ whole curriculum. According to the MINEDUC’s (2016a) guidelines, this plan must be aligned with the national framework and each school’s PEI. It has been suggested that this plan for promoting citizenship education includes (a) classroom activities; (b) activities for breaks and lunch periods; and (c) ways for making school culture a vehicle for citizenship education.

Since the requirement of these plans is so new, there has not been research on them yet. What existed was a study by Cox and García, C. (2015), who examined the evolution of citizenship education in the national curriculum documents from the 1990s to 2013. During this period, citizenship education was tackled (a) directly, in history and social studies; (b) indirectly, in philosophy and psychology (with college-bound students); and (c) transversally, through the national cross-curricular goals. The study programs for history and social sciences showed references to democracy, human rights, and diversity, with significant continuity during the

period studied. For the most part, there was continuity on the cross-curricular goals too. The major problem identified by this study was that none of the documents referred to voting, citizen responsibilities, or the building of the common good.

**Place of the national cross-curricular goals.** A fifth key element of a Chilean high school's whole curriculum is how it includes the cross-curricular goals that go beyond citizenship education. These goals have been a part of all the national curriculum frameworks since the late 1990s, without substantial changes (Cox & García, C., 2015). The latest version listed 34 goals under nine dimensions: (a) *physical*, (b) *social-emotional*, (c) *cognitive-intellectual*, (d) *social-cultural and civic*, (e) *moral*, (f) *spiritual*, (g) *productivity and work*, (h) *the construction of a life project*, and (i) *the use of information and communication technologies* (ICTs) (MINEDUC, 2015a). The research on these goals and their attainment was almost nonexistent. I only found one empirical study directly focused on them, two reflective essays, and a recent investigation on religious education in public schools that indirectly touched upon these goals.

The empirical study on the cross-curricular goals was an investigation commissioned by the MINEDUC (2001) to understand teacher conceptualizations of these goals and difficulties in their implementation. It was based on 10 focus groups with history, biology, art, and math teachers from 24 diverse high schools from Santiago, as well as these schools' *jefes de UTP*. Half of the schools had a clear and well-known PEI, and the other half did not. Results revealed that in the first schools (with a clear and well-known PEI), teachers knew about these goals because the PEI integrated them. In the second group of schools, teachers did not know much about these goals and were more focused on their respective disciplines. In general, however, teachers had only a vague knowledge of the concrete cross-curricular goals in the national framework.

Regarding implementation of these goals, the study found that schools with a clear and well-known PEI implemented them by way of several transversal activities. Catholic schools

stood out in this regard. In schools with unclear or less known PEIs, this was deemed as the counselors' responsibility. In this sense, "the great void in the implementation of the cross-curricular goals was at the level of subject departments, where there was a lack of understanding and appreciation for these goals" (MINEDUC, 2001, p. 20).

Reflecting on the nature of these cross-curricular goals, Romeo (2001) expressed that they related to values education, which required some kind of communal consensus. This consensus supposed some shared vision of the human person and the type of society to be built, without which these goals were just "another curriculum utopia" (p.129). Fearing for a lack of such shared vision in most schools, she worried that these goals could end up being a great failure.

Twelve years later, Marticorena (2013) claimed that these cross-curricular goals had indeed failed as a strategy for whole-person education. He asserted that they were not adequately conceptualized nor operationalized, so teachers did not know what to do with them. Also, he suggested that these goals related to the morals of the 1990s middle class, which were undergoing deep changes. In this vein, Marticorena posited that Chile was entering a crisis related to the idea of the human person that schools aimed at educating (and its expression in these goals).

As indicated in Chapter One (Footnote 15), Chile has historically guaranteed the offering of religious education in all schools on those beliefs that are most common among students and their families. However, in the face of cultural changes in the last decades toward secularization, the MINEDUC commissioned a study for revising this offering in public schools (Montecinos et al., 2017). The investigation was a two-stage mixed methods study. The first stage consisted of 30 interviews with administrators and religious education teachers from diverse public schools, plus 15 focus groups with religious education teachers, parents, and students from these schools. The second stage consisted of a survey answered by a nationally representative sample of 285 principals and *jefes de UTP*.

Results of the study indicated that the primary purpose attributed to religious education in public schools was values education from a whole-person perspective, which participants valued greatly. In fact, what they prized most about religious education teachers was not their practice of the faith taught, but their connection with students. Most schools used the Catholic study programs for this subject, but adapted them significantly. More than 60% of the families wanted their children to take this class in primary school, which decreased as students moved toward 11<sup>th</sup>-12<sup>th</sup> grades. The most critical issue for administrators was not having an alternative for students who did not take religious education. During these class periods, they usually stayed in the back of the classroom doing other things, or went to the library on their own.<sup>30</sup>

In spite of the latter problem and the country's cultural changes, the survey revealed that few public school administrators would eliminate religious education. They treasured the role of this class in whole-person education, which contributed to the attainment of the otherwise neglected cross-curricular goals. However, the study suggested modifications of the offering along the line of a non-confessional alternative that allows schools to make it mandatory.

In sum, the few works on how schools related with the cross-curricular goals depicted a complex, changing landscape. Addressing these goals related with having a clear and well-known PEI that somehow overcame discipline boundaries, which was possible where there was a shared vision for education that assumed these goals (e.g., in faith-based schools). Where the PEI was unclear or less known, or there was a lack of a shared vision, these goals tended to be regarded as counselors' or religious education teachers' business. Chile's latest cultural changes, however, may be demanding an update of these goals and of the ways in which schools tackle them.

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<sup>30</sup> The reader should keep in mind that, in Chilean schools, *cursos* share a classroom and a common schedule (with teachers moving between classrooms to teach their classes, not students). Thus, the offering of religious education creates the problem of what to do with students who opt out of it. Where do they go during these class periods? What do they do?

**Cultural appropriateness of the curriculum and the hidden curriculum.** Finally, a sixth element of a Chilean high school's whole curriculum is how it relates to the non-written structures of schooling (e.g., trends in knowledge production). I found few studies on this topic, basically on two areas: the lack of culturally-appropriate curricula in contexts with large Indigenous populations and the *hidden curriculum* in elite schools. The hidden curriculum refers to the unwritten –and often unintended– lessons that schools convey through their culture, their discourses, their daily practices and routines, etc. (Jackson, 1968). For instance, this explains how *values are caught, not taught* (Jackson, Boostrom, & Hansen, 1993).

Regarding the development of culturally-appropriate curricula for Indigenous peoples, the government's commitment is embodied in the *Intercultural Bilingual Education* program (EIB for its Spanish initials). Its goals are to (a) promote bilingualism in the corresponding language (although 79.8% of Indigenous people in Chile are Mapuche [<https://resultados.censo2017.cl/>]); (b) include traditional Indigenous educators –who are distinct from certified teachers– in the staff of schools located where there are large Indigenous populations; and (c) introduce curricular adaptations in disciplines other than language, such as history. EIB's focus has been on PK-8 schools, however, because the law requires that, if more than 20% of the students are Indigenous, these schools must offer mandatory classes on the corresponding Indigenous language.

High schools have not had much support for developing culturally-appropriate curricula. Nonetheless, one would expect that schools and teachers in contexts where there are large Indigenous populations adapt their teaching accordingly. Turra-Díaz (2012) interviewed history teachers from five high schools in this situation, and found that none of them contextualized their teaching nor received assistance for doing it. He also analyzed MINEDUC's history programs for 9<sup>th</sup>-12<sup>th</sup> grades, and pointed out that less than 5% of the instruction time was dedicated to Indigenous peoples, which were presented as *other* (from Chileans).

Additionally, although Indigenous students are legally entitled to have their cultures included in the curriculum through electives, there are no systematizations of Indigenous cultures in curriculum format (e.g., study programs) that could be used for offering such courses. Two studies aimed at systematizing aspects of the Mapuche culture for developing high school subjects and school structures (Carihueño, 2007; Quilaqueo, Quintriqueo, & San Martín, 2011). They were based on interviews with 12 and 22 *kimches* (i.e., elders in Mapuche communities), and identified several content-areas that have conceptual, procedural, and attitudinal aspects (e.g., the *gijatiin*, or Mapuche sacred ritual). These contents could be the basis for developing courses that strengthen Mapuche students' identity and self-esteem. However, Quilaqueo et al. (2011) stressed that one should be mindful that Western culture gives primacy to conceptual knowledge, whereas Mapuche culture prioritizes attitudinal knowledge such as respect for the elders.

Quintriqueo (2010) studied the cultural conflict experienced by Mapuche students because of the distance between their home culture and the school's culture. He surveyed 268 students, 167 parents, and 21 teachers. Students and parents indicated that they valued knowledge learned at schools more than their Mapuche home culture. Quintriqueo hypothesized that this result evinced a gap between Mapuche and Western knowledge not sufficiently addressed at schools, with serious consequences for students' identities. He further conjectured that this situation is at the root of very complex biographical struggles for Indigenous students in the modern context.

The only study found on Chilean high schools' hidden curriculum explored how private, elite schools prepared high class students for leadership (Madrid, 2015). In Chile, these schools are of three types: (a) traditional Catholic, founded before 1965; (b) traditional European (British, French, German, etc.); or (c) new Catholic, which are today's elite preferred schools. The investigation was based on 40 life stories of men and women between 19 and 45 years old who attended these types of schools, which allowed to reconstruct these schools' lived curriculum.

Research indicated that these elite schools offered a *managerial curriculum* characterized for training rational, autonomous, cosmopolitan individuals. In general, these schools emphasized academic excellence, with a focus on math and science –especially for males– that created conflicts for students with other orientations. Traditional Catholic schools had a broader curriculum, which they linked to educating in creativity. Most of these schools promoted competence through in- and out-of-school tournaments, and had award ceremonies for recognizing the best in sports and academics, as well as those who embodied the school’s spirit. These schools also prepared students for a globalized world, cultivating “fascination for U.S. and European cultures, which has always been a distinctive feature of Latin American elites” (Madrid, 2015, p. 120). In traditional European schools this was especially evident in their bilingualism and their link with the *International Baccalaureate* (IB).

The research on how high schools in regions with large Indigenous populations have not offered culturally-appropriate curricula, and the study of the hidden curriculum in elite schools were somehow mirror images of one another. Although their foci were on vastly different Chilean realities, both revealed the consequences of global curriculum trends mentioned in Chapter One: a growing culture of cognition, an expansion of the scientific mindset, an emphasis on the universal over the local (or traditional), and attention to individuals over their communities (Baker, 2015; McEneaney & Meyer, 2000). Elite schools fully embraced these trends, preparing high class students correspondingly, whereas Indigenous students experienced alienation due to the conflict between these trends and their home-cultures.

### **What We Knew and Did Not Know Before the Study**

What did the reviewed literature indicate about high school curriculum reshaping in Chile and how to best study it? This section outlines what the literature as a whole indicated about (a) a



Chilean high school's whole curriculum, (b) the process of reshaping it, and (c) an appropriate research design for studying both issues.

A first finding on the whole curriculum was that most Chilean high schools' curricula were similar to one another. PEIs were not so different, and tended to provide little concrete guidance for teachers' daily work. Most schools taught almost the same study programs and plans –centrally developed by the MINEDUC– and allotted more time to mathematics and language than was mandated (using some of their class periods of free disposal for this). Curriculum development generally occurred within the boundaries of academic departments, and cross-curricular goals were deemed the responsibility of school counselors (and religious education teachers). All the previous points seemed to be true even in regions with large Indigenous populations where one would expect more curriculum contextualization.

This homogeneity was due to several reasons. In the first place, the expansion of high schooling since the 1960s was inherently associated with standardization, and the latest claims for equity have further extended this logic, along with testing and policies for accountability. Second, disciplinary boundaries have generally hindered comprehensive views of the curriculum, and the breadth of the national framework has left schools little real wiggle room. Finally, the Chilean educational system has suffered from a lack of a culture of curriculum construction at all levels (including consultants). Few people have studied or have been trained for working on school-level curriculum issues comprehensively.

A second point suggested by the literature about a Chilean high school's whole curriculum is that, in spite of the general uniformity, there were some differences between school types. Public schools tended to use more of their flexible time for sports and the arts than the other types of schools. More publicly-subsidized schools tended to be values- and religiously-oriented than the rest. Private schools were almost the only ones that had proposed new subjects

based upon their emphases on academic excellence and global perspectives. Faith-based schools stood out for their whole-person education, embodied in clear and well-known PEIs that integrated the national cross-curricular goals. Most of these differences did not relate to the core subjects, however, but to schools' cultures and how they used the few class periods of free disposal beyond allotments for more math and language. In this sense, although differences were few compared to similarities, they revealed nuances around what Chileans understood as quality education.

Thirdly, U.S. school-case studies suggested that a sharp examination of a high school's whole curriculum should pay attention to: (a) the school's goals (and possible market-like dynamics of increasing variety and choice to respond to various interest groups); (b) the school's educational infrastructure, i.e., its mechanisms for translating its values and vision into concrete practices; (c) departmentalization, and students' and teachers' whole school experience across departments; and (d) the periphery of the curriculum (i.e., electives and extracurriculars). For schools that have reshaped –or are reshaping– their curriculum, the U.S. literature also indicated large gaps between aspirations and reality, which called for a careful examination of the innovations (e.g., the adoption of project-based learning).

On the process of curriculum reshaping, research indicated four broad findings. First, there has been little curriculum innovation in Chile. In theory, there is ample flexibility for innovating. In reality, though, there are complex pressures related to the tightness of the policy context and other reasons mentioned that thwart innovation. Despite this situation, there have been high schools with valuable experiences on curriculum innovation, such as the 15 schools that the *Monte grande* classified as innovative institutional projects with the potential to become educational models. In this vein, Cohen and Mehta (2017) claimed that it is not true that innovations challenging the *grammar of schooling* have never succeeded. What is more accurate

is that few of them have succeeded (e.g., Montessori schools), and they have usually developed within specific niches. These few Chilean cases have not been studied comprehensively.

Second, there used to be one idea of innovation but the expansion of the school system and more attention to the different contexts diversified this idea. In fact, one could think of a *typology of Chilean curriculum innovations* by graphing the *Montegrande's* four fields of innovative institutional projects (MINEDUC, 2004) as movements toward more focus on *identity* or *creativity*. These two directions come from Mehta and Fine's (2015a) clustering of the schools studied into three rough groups, more focused on *mastery*, *identity*, or *creativity*. Since *mastery* is not an innovation direction, but the traditional focus of schooling, Figure 2.2 pictures the four *Montegrande's* innovation fields as moving from *mastery* toward different combinations of *identity* and *creativity*. These diverse innovation trajectories also revealed nuances around what different groups within Chile understood as educational quality.

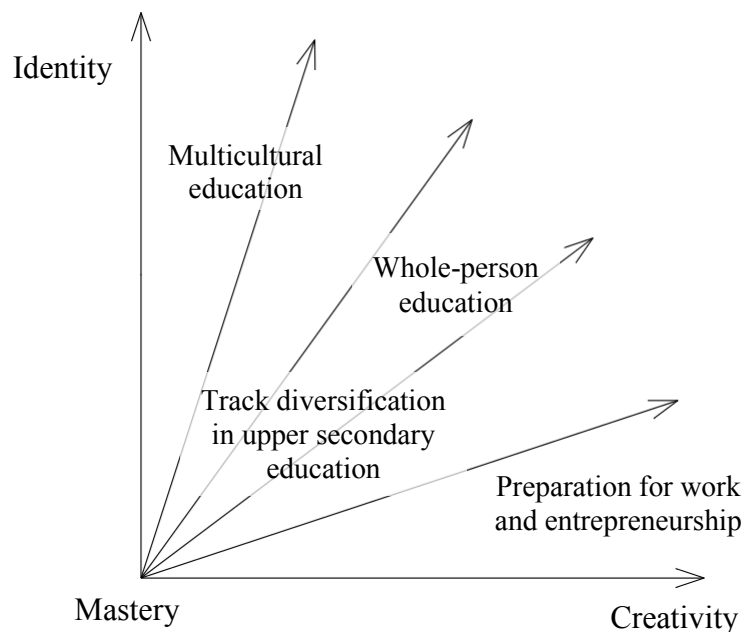


Figure 2.2. The *Montegrande's* innovation fields moving from mastery toward more creativity and/or identity.

Third, the literature on the place of the cross-curricular goals suggested that Chile may be undergoing important changes with regards to the values and the communal consensus underlying schools' whole curricula. The general lack of attention to these goals in connection with weak, unclear PEIs that do not help to overcome disciplinary distinctions may be a sign of these changes. Tensions associated with these changes related mostly to the intra- and interpersonal aspects of education (i.e., with culture, values, spirituality, etc.) captured by the identity axis in the typology of innovations in Figure 2.2.

Fourth, U.S. studies pointed out that, aside from giving attention to the values and vision underlying the reshaping process –which explain the different directions of the innovation trajectories–, a comprehensive investigation of curriculum reshaping should give attention to: (a) the concurrence of administrative (i.e., institutional, structural) and specifically educational problems in the curriculum reshaping process; (b) the concrete instances for curriculum development at a school (which studies showed to be very scarce); and (c) how the school addresses the philosophical and political levels of the change processes.

With regards to the most appropriate research design for studying a school's curriculum and its changes, the lack of Chilean research pursuing goals akin to those of this dissertation implied that the lessons on this matter came entirely from the U.S. These works indicated that a semi-ethnographic, chiefly –but not only– qualitative research design aiming at thick descriptions was probably the most appropriate for the dissertation's goal of describing and analyzing innovative schools' curricula, including their written and non-written aspects. For studying the processes by which schools reshape their curriculum, the ideal study design appeared to be longitudinal. In the case of schools that reshaped –or are reshaping– their curriculum, the literature indicated that direct observations are key for going beyond this type of schools' narratives of groundbreaking changes.

All the previous points indicated that, before this study, we knew a lot about a Chilean high school's whole curriculum, the (difficult) process of reshaping it, and how to study both issues. However, the literature also revealed that there was a lot that we did not know, which made this dissertation significant. First, we knew little about the few Chilean high schools that had successfully reshaped their curriculum, challenging the grammar of schooling in spite of the many obstacles. For instance, did they also present astounding gaps between aspirations and realities? If so, what gaps? Second, the literature revealed that we needed comprehensive studies because most of what was available referred to specific elements of a school's curriculum (e.g., the PEI or the use of the class periods of free disposal), but the problem at stake is reshaping the whole curriculum, not one or two class periods. Third, we needed contemporary studies because the context for curriculum innovation changed greatly since the 2006 and 2011 student protests, and the educational policies that followed. This dissertation aims at filling some of these gaps in the literature.

## CHAPTER THREE

### **School-Based Deliberation of Infrastructure as Theoretical Framework**

This chapter presents the theoretical framework of *school-based deliberation of infrastructure* used for describing and analyzing the curriculum of the studied schools, as well as the process of reshaping the curriculum. This frame connects two smaller frameworks that integrate ideas from diverse traditions within curriculum studies –namely, *school-based curriculum deliberation*, and *curriculum as infrastructure*. Thus, the chapter begins by describing these two building-block frameworks (and their roots). These descriptions are followed by an explanation of how these two smaller frameworks came together as school-based deliberation of infrastructure to inform data collection and analysis. The chapter ends with an account of my stance on curriculum reshaping that clarifies why I chose to pool these frameworks for the study.

### **School-Based Curriculum Deliberation**

This first building-block framework combines elements proposed by authors who have ascribed to the *deliberative tradition* within curriculum studies (Reid, 1999; Schwab, 1973). A central feature of this tradition is its emphasis on schools' agency in curriculum matters, as well as on the moral-political character of this school-level work because “deliberation is both an activity of community and an activity which creates community” (Westbury, 1994, p. 43). The deliberative tradition also theorizes educators' relationship with the curriculum in dialogue with the German *Didaktik tradition* (Westbury, Hopmann, & Riquarts, 2000).

The origins of the deliberative tradition go back to Schwab's (1969) contention that the field of curriculum studies was moribund due to its excessive concern for theory at the expense of practice. This was much more than a critique of intellectualism, however, as Schwab used the terms *theory* and *practice* in an Aristotelean sense (Westbury, 2013). For Aristotle, citizens engage in three broad kinds of activity: (a) production or *poiesis*, which is based on techniques

(or *techne*); (b) theorizing or *theoria*, which is the search for universal knowledge (or *episteme*); and (c) deliberative action or *praxis*, which is not based on techniques nor on universal knowledge but on context-dependent practical wisdom (or *phronesis*). Among other activities, Aristotle considered politics to be *praxis*, not *poiesis* nor *theoria*. In this vein, Schwab's contention was that curriculum studies had become too concerned for universal ideas when its essence should be contextually-dependent deliberative action akin to politics.

School-based curriculum deliberation was Schwab's (1973) means for moving the field away from its theoretical obsession with system building, and closer to the complex, diverse realities of schools. For him,

Professors of curriculum ... seek the right curriculum by consulting and constructing theories ... as if an adequate theory of curriculum ... would tell us once and for all what to do in every grade and every stage of every school in every place ... [But] the construction of needed diversities entails attention ... to the local. (Schwab, 1983, p. 242)

This attention to the local could be as theoretically- or technically-oriented as most bureaucratic approaches, however, and Schwab believed that curriculum work is "a deliberative, *phronetic* action in schooling's work and worlds" (Westbury, 2013, p. 646). Therefore, he proposed that curricula should be advanced by school-based deliberative groups in which all those who will be affected by a decision to act or can contribute to address the perceived need or problem are represented (Schwab, 1969). In particular, Schwab (1973) emphasized that five perspectives –or *commonplaces*– are central for wise school-based curriculum deliberation: (a) the disciplines; (b) the *milieus* or nested contexts in which learning will take place; (c) the learners, and what we know about their learning; (d) the teachers; and (e) curriculum making.

Schwab's (1983) school-based curriculum deliberation implied the importance of educating and supporting a very different kind of curriculum specialist than that proposed by

Bobbitt (1918) or Tyler (1949/2013). This new person's main task was to lead school-based deliberative groups, "evok[ing] and maintain[ing] an appropriately deliberative mode of discussion" (p. 254). For this, he or she should help all those involved in deliberation to remain oriented toward the higher aims of education, and avoid subordination to the disciplines, which is what usually happens (Schwab, 1973). This implied a curriculum specialist who is a generalist with broad training in several areas. In short, Schwab advocated for transforming "curriculumists from statistics-minded behavioral psychologists into well-schooled, philosophically informed public servants who shape communities toward civic virtue" (Null, 2011, p. 168).

School-based curriculum *deliberation* and school-based curriculum *development* (SBCD) share many elements, but they are not exactly the same. The latter became popular in the U.K., Canada, the U.S., Australia, and Israel during the 1970s and 1980s as a shorthand for decentralized curriculum making. It then dropped out of use during the 1990s and now is coming back again in East Asia and Europe (Bolstad, 2004; Law & Nieveen, 2010). This revival is not driven by the 1970s impulses that countered centralized curriculum making, though, but by the aim of contextualizing national learning standards in diverse schools to meet the needs of their learners (Gopinathan & Deng, 2006; Kennedy, 2010). In any case, SBCD is mainly about attending to the local; it may or may not involve a concern for the school community's vision and values underlying the curriculum. This prompted Reid (1987) to suggest that SBCD requires a fundamental shift from seeing the curriculum as *things-to-be-learned* toward understanding it as *a vehicle for shaping collective and individual identities*.

School-based curriculum deliberation's distinctive attention to community building and its moral-political aspect relates to the deliberative tradition's awareness that communal frameworks need some shared beliefs and vision. Most school matters are not only technical; they also relate to what is considered *good* (i.e., they are also moral). Hence, this tradition



highlights that we need deliberation that “aims to find common ground on which varied people and differing interests can stand” (Reid, 1999, p. 44). In this sense, school-based curriculum deliberation “engages ... those who see the problems that the school should be addressing and fuses th[eir] insights, understandings, and energy into ... a cohering communal framework that can order, direct, frame, and focus the work of those individuals” (Westbury, 1994, p. 41).

The deliberative approach also assumes that, since the curriculum is a communal frame, educators should have an in-depth understanding of it, and work toward the common good. Most of the literature on teachers and the curriculum, however, “foreground[s] the[ir] agency ... rather than what is contained in [the] curriculum” (Deng, 2011, p. 539), which has somehow “meant that the curriculum ... can be ignored or bypassed” (p. 553). In this vein, Westbury (2000) noted that teachers’ *theory of content* has been “a void in American curriculum theory” (p. 37).<sup>31</sup>

Differently, the German *Didaktik tradition* upholds that the first step in lesson preparation should be understanding what is specified in the curriculum as something important for students’ lives, which is similar to reenacting the deliberation that led to it. Klafki (1958/2000) deemed this step so central that teachers should postpone all pedagogical matters –the *how*– until they have fully grasped the *what* for the lesson. This does not mean that teachers are assembly line operators that have to do what they are told. It only highlights an “image of teaching [that] recognizes that teachers work within a conception of the public good” (Deng, 2011, p. 554).

According to scholars in the deliberative tradition such as Connelly (2009), Reid (1999, 2003), or Westbury (1994, 2008), despite its timeliness, school-based curriculum deliberation “did not map readily onto the public, political, institutional and ideological framework of ... school systems in the late-20<sup>th</sup> century” (Westbury, 2013, p. 647). It is certainly in tune with

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<sup>31</sup> With the exception of Shulman’s (1986, 1987) work. Interestingly, Shulman studied with Schwab in Chicago.

many contemporary thinkers' return to Aristotle's ideas about our interdependent social-political life.<sup>32</sup> Nevertheless, most present curriculum making –and school system building– is primarily driven by what Mehta (2013) termed *The Allure of Order*. As mentioned in Chapter One, Clandinin and Connelly (1992), and Doyle (1992) suggested that educational systems have evolved in such a way that schools focus mainly on *how* teachers teach (i.e., pedagogy) at the cost of overlooking *what* they teach (i.e., the curriculum).

What does school-based curriculum deliberation suggest for the study of a school's whole curriculum and its change? First, it indicates that we must give attention to the curriculum as *praxis*, i.e., as a result of deliberation or practical judgment. This can occur formally or informally, but it necessarily occurs because educators, students, and parents are always negotiating the *comprehensive framework of aims and contents for teaching and learning*. This perspective implies inquiry around the place of theories and techniques in curriculum deliberation, as well as for the values and vision that ground it, and how much these are shared by the school community. Second, this framework invites attention to representatives of Schwab's (1973) five commonplaces, asking them for their views –and stories– about the curriculum and its changes. Finally, this framework indicates the importance of looking at how teachers relate to the whole curriculum. Do they understand it thoroughly? Do they base their instruction upon it? By attending to all these aspects, school-based curriculum deliberation sheds light on oft-overlooked dimensions of the curriculum and its change, allowing for rich descriptions and analyses of what is involved in reshaping a school's whole curriculum.

School-based curriculum deliberation provides an insightful framework for the dissertation but it also has limits. According to Reid (1988, 2003) and Westbury (1994, 2008),

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<sup>32</sup> Among them are Arendt (1958/1998), Flyvbjerg (2001, 2006), Gadamer (1960/1975), Habermas (1968/1971, 1981/1984), Nussbaum (1986, 1997), and Ricoeur (1992).

the most important of these limits is that it does not give enough attention to elements external to the school. For instance, it seems to ignore that schools belong to school systems, and public authorities issue curriculum policies. In Reid's (1993) words, school-based curriculum deliberation has a fundamental "innocence of the nature of institutions" (p. 508). For Westbury (1994), this limit implies that the central problem for deliberative theory is to stretch the concept of deliberation so it acknowledges that school communities deliberate within the complex cultural and social-political structures and dynamics of the wider society.

### **Curriculum as Infrastructure**

The second building-block framework integrates infrastructure theory and sociological studies of the curriculum to theorize how a school's curriculum is embedded in social structures beyond the school, which is school-based curriculum deliberation's main limitation. According to Mehta and Fine (2015b), the first scholar to use infrastructure theory in educational research was Cohen (2011), who claimed that the teaching profession does not have other professions' (e.g., medicine's) infrastructure for creating consistency of practice across individual practitioners. Recently, Hopkins and Spillane (2015) combined infrastructure theory with Meyer and Scott's (1992) sociology of institutions to study a U.S. district's infrastructure for instructional guidance. In line with Hopkins and Spillane's insight, curriculum as infrastructure is an expansion of infrastructure theory by complementing it with sociological studies of the curriculum that help to theorize the larger structures and dynamics in which school-based curriculum deliberation is embedded (e.g., the grammar of schooling).

In general, infrastructures are *guides or scaffolds for coordinating activities that have become so obvious, thus subsumed into the background, that they are only seen when there is a crisis or they require maintenance*. According to Star and Ruhleder (1996), infrastructures are:

- Invisible, i.e., once established, they support tasks without being noticed;

- Learned through community membership;
- Linked to conventions of practice and other social routines;
- Visible upon breakdown, or other moments of crisis or upheaval;
- Embedded in other structures;
- Shaped and constrained by their relationship to previous infrastructures; and
- Changed in modular increments, i.e., through complex processes of adjustment with neighboring systems and structures.

These characteristics come from the analysis of physical (e.g., electrical) infrastructures, but school curricula share them: they coordinate the activity of teaching; they are usually invisible or obvious until there is a crisis (such as the one triggering the present need for reshaping the curriculum); they relate to conventions of practice; and they are embedded in larger cultural and societal structures that shape them.

Although infrastructures appear timeless, they are accomplishments of scale that begin locally and follow complex paths of transfer from one location or domain to another (Jackson, Edwards, Bowker, & Knobel, 2007). In fact, many processes of infrastructure expansion have been mergers of old and new systems that allowed “smooth, reliable, and relatively robust interoperation across ... the technologies and social worlds in question” (Jackson et al., 2007, para. 8). The significant inertia of these developments relates to the high cost of any major changes, and to the fact that they involve stakeholders’ identity and status. They may even entail problems with existing regulations. Goodson’s (1981, 1992, 1995) historical investigations on the establishment of curriculum subjects point toward similar dynamics in the development of the traditional academic curriculum, where the technical and the social-political were intertwined.

As explained in Chapter One, a key infrastructure in which most present school curricula are embedded is each country’s national curriculum framework. Comparative research on the

development of these frameworks is scarce (Haft & Hopmann, 1990; Hopmann, 1991; Westbury et al., 2016). Nevertheless, what is available shows that these frameworks have been generally developed by committees, which have tended to be idealistic rather than realistic. Westbury (2008) claimed that these committees have usually failed to grasp that schools do not exist only to educate, and have rarely given enough consideration to each country's actual school structures.<sup>33</sup> As a consequence, many curriculum guidelines are 'tamed' and reduced to pieces that end up diluted into the system, "becom[ing] (at best) adjustments around the margins of an established system" (Westbury, 2008, p. 56).

However, Meyer (1980) posited that "the schooling levels of importance are institutional, not organizational" (p. 16). For him, *institutions* are social patterns in people's consciousness, such as grade-levels or the role of teachers, and *organizations* are the administrative entities that embody these patterns, such as concrete schools or a set of learning standards. From Meyer's angle, schooling is first of all a sequence of steps to be completed by youth, regardless of what they learn in each step. Thus, schools have power inasmuch as they carry the institutional authority to certify that students have passed from one step to the next. School systems do much more than socializing individuals; they are modern societies' mechanism for organizing knowledge and people, distributing roles and status. As Meyer (1977) put it,

We may all gossip privately about the uselessness of education, but in hiring ... in consulting the various magi of our time, and in ordering our lives around contemporary rationality, we carry out our parts in a drama in which education is authority. (pp. 75-76)

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<sup>33</sup> A Chilean example of this point is the ambiguous situation of 7<sup>th</sup> and 8<sup>th</sup> grade in the country's school system. The last law regulating the national K-12 school system (from 2009) determined that these two grades become the first years of secondary education, and the national curriculum framework considers them accordingly. However, most high schools are 9-12 so in many locations 7<sup>th</sup> and 8<sup>th</sup> grade continue to be the last years of primary school, not the first years of secondary education (Gysling, 2007).

Jackson's (1968) *hidden curriculum* –with its link to socioeconomic status (Anyon, 1980), gender (Basow, 2004), and other factors– reveals how school curricula (and even national curriculum frameworks) are embedded in this institutional level of schooling at the core of modern societies.

Accordingly, effective school-based curriculum deliberation has to consider that the curriculum is embedded in institutional categories with meaning for external publics that control the status of educational activities. Among other things, this should lead educators to question the extended assumption that the curriculum is primarily about academic learning (Reid, 2003). For instance, schools encourage student work on the basis of a potential adult future. This creates some alienation in youth that traditionally has been solved by “incorporat[ing] more matters of student interest ... and more expanded legitimations of students' present identities” through electives and extracurriculars (Meyer, 1980, p. 39). This solution is double-edged, however, because it enhances student participation but also undercuts the essential linkage between education and students' future, making “commitment and resources ... rapidly decline” (p. 48). This example illustrates a shortcoming in many approaches to innovation: ignoring the power of the institutional base of the curriculum (Meyer, 1980; Tyack & Tobin, 1994). Similar to successful infrastructure development, sustainable curriculum change has to reconcile the school system's organizational requirements with the institutional expectations for schooling posed by diverse groups of stakeholders.

On top of the social dimension of this institutional infrastructure of schooling, Bernstein (1971) studied its link with knowledge. He examined the structure of knowledge embodied in schools' curricula and, since few have been successful at institutionalizing integrated curricula (where there is discipline boundary-crossing), he focused on the predominant subject-based curriculum. He found that subject-specialized curricula promote fragmentation and privatization within a market-based approach to life, so he called for exploring ways to move toward

interdisciplinary curricula that socialize into more integrated and democratic worldviews (Apple & Beane, 2007; Beane, 1997). However, he also realized the power of specialized knowledge, foreseeing the complex consequences for disadvantaged students that could follow from not offering them access to structured knowledge through subject-based curricula (Whitty, 2010; Young, 2008). Likewise, García-Huidobro (2018) argued that the tension between knowledge specialization, and comprehensive identity, moral, and political issues constitutes one of the most complex curriculum challenges of our time. Specialized knowledge is a major infrastructure that shapes (and constrains) modern high schooling and its curriculum.

Despite the rigidity of the previously mentioned social and epistemological infrastructures, shifts in global culture are triggering significant changes in each country's curriculum guidelines. As explained in Chapter One, McEneaney and Meyer (2000), and Baker (2014, 2015) identified several trends, such as a growing culture of cognition, an expansion of the scientific mindset, an emphasis on the universal over the local (and/or traditional), and an increasing focus on the individuals instead of communities. In relation to these structural changes in the curriculum, Reid (2003) suggested that if we “wish to gain a better appreciation of the social changes that are going to force [curriculum] innovation upon us, whether we want it or not” (p. 43), we should continue to pay attention to the broad cultural trends, and to how they are received and lived by youth.

The framework derived from integrating infrastructure theory with the described sociological studies of the curriculum suggests four central points for the examination of a school's curriculum and its changes. First, this framework proposes approaching the curriculum as *structure that supports and constrains action*, supplementing school-based curriculum deliberation's approach to curriculum as *praxis*. Second, it proposes attention to the formal curriculum guidelines imposed on the school by larger governing bodies, such as a country's set

of learning standards, and to how the school community relates to these guidelines. Third, this framework invites consideration of the non-written institutional expectations for education that shape a school's curriculum beyond the formal curriculum guidelines. These could be perennial expectations, such as those associated with the maintenance or acquisition of social status, or new ones linked to globalization and societal changes in the last decades, such as the importance of English as *lingua franca* (see Footnote 6). Finally, this framework suggests considering curriculum change as a highly complex issue that involves conflicts with existing regulations, people's identity and status, etc., thus requiring curriculum specialists that have both technical and social-political skills. The image of a curriculum specialist that stems from this framework is that of an infrastructure builder with a "particular quality of thought ... [that includes] envisioning the fulfillment of functions by linking heterogeneous systems ... moving between the technical and the social" (Jackson et al., 2007, para. 23).

### **The Two Frameworks Combined for Studying Curriculum Reshaping in Chile**

How did *school-based curriculum deliberation* and *curriculum as infrastructure* dialogue to inform the dissertation? Figure 3.1 depicts a comparison of these two building-block frameworks based on three elements: (a) their broad approach to the curriculum, (b) the aspects of a school's work on which they invite attention, and (c) the underlying idea of a curriculum specialist (and its role in school-level curriculum development).

Combining these frameworks accomplishes two basic things. From the perspective of school-based deliberation, it widens the idea of *what* can –or should– be deliberated to include all the visible and invisible structures that frame teaching and learning at the school (e.g., disciplinary boundaries, the hidden curriculum, or cultural expectations for schooling). From the perspective of the curriculum as infrastructure, it introduces the critical idea that many aspects of the framework of aims and contents for schooling that appear to be timeless or fixed are not.



Thus, it is possible to reshape them. The existence of this possibility does not mean that transformations are easy, as all infrastructures are embedded in other structures that shape them. However, this possibility is central for the curriculum innovations that are this dissertation's focus.

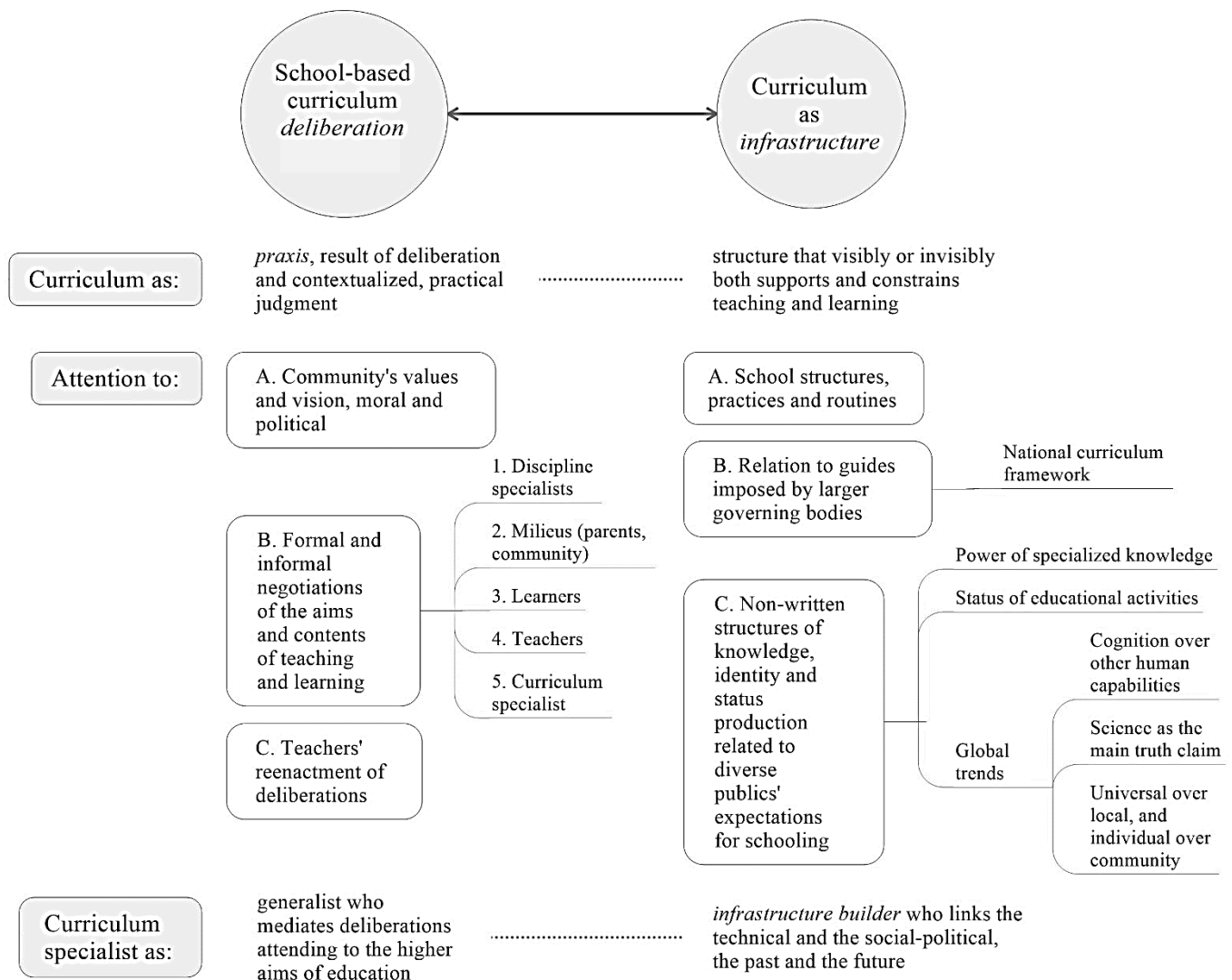


Figure 3.1. Essential elements of school-based curriculum deliberation and curriculum as infrastructure.

This combination of frameworks also allows for a rich study of the curricular dimension of Tyack and Tobin's (1994) *grammar of schooling*. For them, this infrastructure has “persisted in part because it [has] enabled teachers to discharge their duties in a predictable fashion and to

cope with the everyday tasks that school boards, principals, and parents [have] expected them to perform” (p. 476). In the same respect, Tyack and Tobin proposed that most efforts for innovation have failed either because of teacher burnout (and turnover), or because they have not corresponded with the public’s expectations regarding what is a real school. They posited that sustainable change requires “intense and continual public dialogue about the ends and means of schooling, including reexamination of cultural assumptions about what a *real school* is and what sort of improved schooling could realize new aspirations” (p. 478). This dialogue is precisely what *school-based deliberation of infrastructure* suggests looking at.

An important point that this framework brings to the fore is that some curricular elements that at first appear to be externally imposed on schools are also internal. For instance, specialized knowledge is deeply and powerfully linked with high school departments and teacher identities, shaping school-based curriculum deliberation through them (Milla, 2004; Poggi, 2003; Siskin, 1994). Accordingly, “the conditions for structural changes in the curriculum ... are inseparable from changes in the organization of teachers’ work [and in their self-understanding as teachers]” (Terigi, 2012, p. 72).

The literature review in Chapter Two also suggested attention to specific components of a high school’s whole curriculum, and aspects of the process of reshaping it that could be easily included as elements in this pooled framework. Concerning the whole curriculum, these components are (a) the school’s goals (and possible market-like dynamics of increasing variety and choice as a response to diverse publics’ push for different goals); (b) departmentalization, and people’s experience across academic departments (which in Chile relates to the place given to the national cross-curricular goals); and (c) the *periphery of the curriculum*, i.e., electives and extracurriculars. With regards to the process of curriculum reshaping, these aspects are (a) the *ideal of an educated person* underlying the process, (b) the concurrence of administrative (i.e.,

organizational) and specifically educational issues in the process, (c) the concrete instances for working on curriculum development (which studies showed to be scarce), and (d) how the philosophical and political levels of the change process are –or have been– addressed.

Including the latter components and aspects, school-based deliberation of infrastructure provides a rich conceptual toolkit for studying the complexity of a school’s whole curriculum, and the process of reshaping it. Table 3.1 presents a breakdown of the research questions’ foci into 14 dimensions based on this framework. These dimensions were central for data collection and analysis, about which Chapter Four gives more details.

Table 3.1

*Breakdown of the study’s foci into dimensions using school-based deliberation of infrastructure*

		Dimension
Study focus	1. The whole curriculum of each school at present, including its written and non-written aspects	1. School goals, values and vision; the general emphases.
		2. Areas or departments, and the associated course offerings and emphases (including electives and extracurriculars in the periphery of the curriculum).
		3. Relationship of the areas or departments with the whole school.
		4. Approach to the national cross-curricular learning goals.
		5. Silences in, or around the curriculum (i.e., non-addressed issues).
		6. Hidden curriculum, and its manifestations.
		7. Relationship between the curriculum and non-written structures of knowledge, identity and status production (e.g., the growing culture of cognition).
		8. Underlying idea of educated (and/or successful) person.
		9. Tensions around the curriculum (overt or hidden), and concrete instances of school-based curriculum deliberation for processing them.
	2. The process of reshaping the curriculum since the school began to innovate	10. Evolution of the whole curriculum since the school began to innovate.
		11. Drivers of and narrative associated to the change.
		12. Relationship between the change and existing structures and guidelines (at the school-, system-, and societal-level).
		13. Tensions, and formal or informal negotiations associated with the change.
		14. Historical processes of school-based curriculum deliberation.

## Why This Theoretical Framework? My Stance on Curriculum Reshaping

The reasons for combining *school-based curriculum deliberation* and *curriculum as infrastructure* into *school-based deliberation of infrastructure* as the theoretical framework for the study relate to impressions and positions already shared or suggested. First, I am concerned for the values and narratives conveyed to students, and believe that most school-level work on innovation does not address this aspect sufficiently. As stated in the Preface, the 2016 six-month trip visiting innovative schools left me with the impression that most of these schools were innovating chiefly based on cognitive psychology and the learning sciences. Potential causes of this trend could be widespread concern for student engagement and depth of learning, and the emphasis of human capital discourse on job markets' future needs (Taubman, 2009). Historical, sociological, and philosophical considerations seemed to be generally sidelined (Palmer, 2009), resulting in a watering down of the moral and spiritual aims of education (Englund 2015, 2016) and a certain naiveté regarding the long-term direction of curriculum change (Baker, 2015; Wheelahan, 2012; Williamson, 2013).

The problem of innovating without sufficiently addressing the values and narratives conveyed to students is primarily moral-political –not technical– which is something that deliberation brings to the fore. In this sense, although school-based curriculum deliberation does not come directly from Habermas' (1992/1996) social and political theories,<sup>34</sup> it relates to his ideal of a public sphere where there can be open discussions about matters of common concern, and his worry for preserving this sphere from technocratic forces (Habermas, 1968/1971). These ideas also are rooted in Aristotle's distinction between *techne* and *praxis*, which helped Habermas (1962/1989) to claim that modern progress can become ideological if it results in a

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<sup>34</sup> For Gutmann and Thompson (2004), “Habermas is responsible for reviving the idea of deliberation in our time ... giving it a more democratic foundation” (p. 9).

reduction of discussions about our shared values and future because of rendering moral-political issues –about the good life– as technical ones to be addressed by experts. I expect that school-based curriculum deliberation helps to unearth schools’ technical and moral-political options, allowing to analyze the latter ones, which are often overlooked.

In addition, I also have a concern for how values, beliefs, and philosophies translate into structures that support collective action aligned with these values, beliefs, and philosophies. The extension and complexity of modern bureaucracies and systems makes current efforts for institutionalizing values and narratives difficult. Because of this, some theorists deem structures – such as the curriculum– intrinsically oppressive, and want to get rid of them (e.g., Illich, 1972). Others work within them without much depth of analysis, preaching values and narratives that have no correlation with what their organizations actually promote. In between these standpoints, I am convinced that structures are not intrinsically oppressive –as they can be constraining but also enabling– but the translation of values and discourses into structures is complex, so structural, sociological analyses can be a great aid. I combined school-based curriculum deliberation with curriculum as infrastructure because I believe that examining *school-based deliberation of infrastructure* is the key for curriculum reshaping.

These concerns and stances connect with a philosophy of social science termed *social or critical realism* (Moore, 2013; Young, 2008), and with a position on innovations that affirms both the urgency of renewed attention to the curriculum and caution regarding fads (Alvy, 2017; Payne, 2008). Social realism blends the belief that the world exists independently of our perceptions with the belief that our understanding of the world is constructed (Maxwell, 2005; Young, 2008). This blend implies recognizing that knowledge and curricula are socially constructed, yet not arbitrarily constructed. Reality imposes some objective conditions, and human progress is a cumulative process in which agency and critical thought are central for

stretching these apparently fixed conditions. In this process, it is important to value the efforts of previous generations for moving forward, and not to be naïve regarding the difficulties for real innovation. Null (2011) said it brilliantly:

In times of turmoil and change, some people race to the cutting edge to experience the new world before anyone else. Others dash to the other extreme, choosing to cloister themselves within age-old rituals, waiting for the storm to pass. Deliberators prefer a middle path that respects wisdom and tradition but also searches for new and creative ways to solve whatever problems arise in the world of practice. (p. 261)

The choice of framework for the study assumed these ideas and positionality.

These viewpoints have led me to distance my position from extremely critical approaches to the curriculum, just as I feel removed from merely technical ones. For Grundy (1987), curriculum derived from a *technical mentality* is incompatible with curriculum derived from a *practical mentality*, however, curriculum derived from a *critical mentality* is “compatible with the *practical interest*. It is, in a sense, a development of the latter. But that does not mean that it is a natural or necessary development ... What is required ... is a transformation of consciousness” (p. 99). I agree with Grundy’s distinctions, and with the relevance she gives to Freire’s (1970/2000) *conscientizacao* of how power structures tend to naturalize oppression. I expect that school-based deliberation of infrastructure helps to raise some of these issues with regards to schools’ innovation efforts. Nonetheless, I do not think that all knowledge structures –and curricula– represent arbitrary impositions of one group over another (Apple, 1979; Bourdieu & Passeron, 1977). For instance, I believe that science and democracy are powerful in themselves, and inclusiveness is a moral virtue, not an epistemic one (Moore & Muller, 1999).

Finally, another reason for choosing this theoretical framework for the dissertation was that the 1990s Chilean curriculum reform, which is the latest comprehensive curriculum reform

in the country, was based on similar ideas. This reform created spaces and structures for school-based curriculum deliberation, it attended to the relevance of teaching structured knowledge for reducing inequities (Nervi, 2004), and it introduced cross-curricular goals that aimed at cultivating contextually-rooted, democratic worldviews in spite of the predominance of specialized subjects (Magendzo, 2008). However, as indicated in Chapters One and Two, evidence has revealed that Chilean schools have had a hard time implementing these ideas because they do not have a *culture of curriculum construction* (MINEDUC, 2016b; Pascual, 2001). I hope that school-based deliberation of infrastructure helps to describe and analyze the curriculum of the selected schools, and the multiple aspects involved in reshaping each of them for furthering our knowledge of how to create such a culture.

## CHAPTER FOUR

### A Descriptive Multiple-Case Study

After describing the study's purposes and research questions, previous literature on the matter, and the theoretical framework used, this chapter presents the research methods, i.e., what I did concretely to answer the research questions. I begin by describing the type of case study I undertook. Since the school-cases were so central to the study's general purpose, next follows an exposition of the process of case selection, and a brief presentation of the three school-cases. The chapter continues by detailing how data were collected and analyzed, and ends with some comments on validity, ethics, and how who I am influenced the whole study.

#### Case Study Methodology

In line with Flyvbjerg's (2006) assertion that "good social science is problem driven and not methodology driven" (p. 242), this investigation adopted a case study approach because it was the best for attaining the stated purposes. As Yin (2014) remarked, a case study approach is appropriate for research that "arose out of the desire to understand complex phenomena" (p. 4), thus requiring in-depth, thick descriptions. Its "defining characteristic ... lies in delimiting the object of study, the case" (Merriam, 1998, p. 27) as a bounded whole about which there are multiple data sources that will converge in a triangulating fashion (Bassey, 1999). Here, the cases were the three Chilean high schools that embarked on processes of curriculum innovation.

As suggested by the *what*-focus of the research questions, the dissertation aimed at offering rich descriptions and formulating theory, not at confirming causes. Accordingly, it was a descriptive case study, not an explanatory study (Yin, 2014). For Gerring (2012), this has been generally regarded as having less scientific value than addressing *why* questions. Yet, he claimed that this is plainly wrong because many causal arguments have been built upon contestable descriptions that most readers tend to overlook or forgive (Gerring, 2012).



In *Three Good Reasons for Not Doing Case Studies in Curriculum Research*, Walker (1983) advocated for studying complex curriculum issues such as those addressed in this dissertation through case studies. He acknowledged that some disliked this approach because (a) it could offer a distorted account of the issues studied due to relying too much on interviews that offer subjective takes; (b) it could imply uncontrolled interventions in others' lives (with a lot of power over people); and (c) it could solidify reality in readers' minds, like photos do, whereas reality is more dynamic. But he pointed out that these problems were not inevitable, intrinsic features to case studies. On the contrary, he submitted that good case studies should (a) use multiple data sources, (b) be respectful of people, and (c) offer open interpretations.

This dissertation's approach was aligned with Walker's (1983) points. Details about the use of multiple sources of evidence come later, in the section on data collection. With regards to respecting people, the study avoided imposing an interpretation on the schools. Due to practical reasons, it did not involve collective theorization as promoted by Lather (1986). However, the fourth stage of data analysis included validating the descriptions and analyses with people at the schools. Also, since principals from the selected schools expressed interest in the study, it was expected that findings not only help other schools to reshape their curriculum but also help the studied schools to be more reflective about their own processes. With regards to offering open interpretations, the study was built upon the deliberative tradition's contention that curriculum work is context-dependent *praxis* akin to politics (Westbury, 2013).

All these aspects of the research design were consistent with what the U.S. studies presented in Chapter Two indicated about how to best study a school's whole curriculum and its changes. Those studies suggested that the most appropriate strategy was a case study relying on several data sources and aiming at thick descriptions, which is precisely what this dissertation is. The lesson from those studies that was not possible to take up in this dissertation design was

observing curriculum reshaping over time (Darling-Hammond et al., 2002). Although ideal, this approach was not feasible given the time it required. The approach to each school's process of curriculum reshaping –within the overarching case study approach– was to reconstruct this process on the basis of historical documentation and interviews with key participants.

### **Case Selection**

Usually, case selection is something that receives less attention than other methodological issues such as data collection. In studies like this one, however, in which the study's purposes are directly related to the cases, “nothing is more important” (Curtis, Gesler, Smith, & Washburn, 2000, p. 1002). This type of study requires researchers “to be sure that [they] identify the ... cases properly, prior to formal data collection” (Yin, 2014, p. 95).

The first idea for case selection came from theory. Eisenhardt and Graebner (2007) explained that for research aiming at developing –not testing– theory, such as this one, purposive case selection is appropriate. This means that cases are selected because they are the best for illuminating the study's foci, and because they offer useful variation on dimensions of theoretical interest (Maxwell, 2005). In the same vein, Seawright and Gerring (2008) proposed seven possible purposive case choices: *typical*, *diverse*, *extreme*, *deviant*, *influential*, *most similar*, and *most different*. They also stressed that any of these choices requires familiarity with the candidate cases. Thus, I began to ponder the importance of visiting Chilean high schools innovating on their curriculum before selecting any concrete cases.

I also pondered the importance of schools' interest in participating in the study, and the feasibility of conducting research there. Along this line, Curtis et al. (2000) studied several case studies' criteria for selecting cases, and found that in all of them “the selection of the sample was initially planned with reference to the theoretical framework ... [but] subsequently, more practical issues of availability of a potentially rich and reliable source of data and the feasibility

of exploiting them also intervened” (p. 1012). These practical factors, combined with the theoretical ones, led me to travel to Chile to visit candidate cases for the study.

Selecting three school-cases resulted from searching for schools, discussing candidates with several people, and refining the selection criteria. Concretely, the process had six steps:

1. In July 2017, I emailed 10 informants in Chile who worked at the Ministry of Education, the country’s Quality Agency,<sup>35</sup> two universities, and an educational NGO. I asked them for high schools that would be appropriate for this study. They proposed 23 schools.
2. In August 2017, I emailed the principals of 14 of the 23 schools, explaining the study to them, and asking if I could visit their schools in October or November. I eliminated from consideration the other nine schools suggested by the informants because Internet searches revealed that they did not fit with the study’s focus because their innovations were not curricular.
3. By September 2017 I had scheduled 11 school visits for October and November. The other three principals never responded, even after inquiring a second time. I did not follow up further because I judged that 11 school visits spread throughout Central Chile were adequate for this process of school selection.
4. I visited the 11 schools between October 19<sup>th</sup> and November 10<sup>th</sup>, 2017. The visits usually lasted for the whole day (8:00 am to 4:00 pm), and included a guided walk through the school, separate hour-long meetings with the principal and the *jefe de UTP*, and open time for observing classes –or other activities– and chatting informally with students and teachers. The goals of these visits were to know the schools –and their innovations– and

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<sup>35</sup> The Quality Agency oversees student attainment of the learning standards. It is responsible for the national achievement tests, and for categorizing schools as (a) high, (b) middle, (c) lower-middle, or (d) insufficient achievers. This categorization only is known by the schools themselves (i.e., it is not public information).

to inform them about the study. Hence, I summarized the study to each principal and *jefe de UTP*, and answered all their follow up questions. Next, I asked them for several characteristics of their schools and their change processes. Appendix B has the rubric I used for these visits, and Appendix C has a summary of the 11 schools visited.

5. During the second half of November 2017, I presented 8 of the 11 schools to two members of the dissertation committee. The other three schools were not really reshaping their curriculum. Conversations with these committee members helped me to hone the selection criteria, which were developed iteratively throughout the selection process, and led me to an initial selection of four schools. These four schools represented the four innovation trajectories in Figure 2.2 (at the end of the literature review).
6. A discussion with the whole dissertation committee in February 2018 resulted in a final decision to study only three of the four school-cases. The study had become too large, and the goal did not require four cases.

The actual selection criteria were (a) the school's experience of curriculum innovation, referred to in Chapter One as the main criterion; (b) the school's interest in the study; (c) the ease of conducting research at the school; and (d) assembling a set of schools that was heterogeneous in key dimensions for curriculum innovation. Following the literature review, three of these dimensions were (a) the type of school –public, publicly-subsidized, or private; (b) the school's educational philosophy, such as being faith-based (of which 85% are Catholic; Celis [2015]); and (c) the idea of and direction for innovation (in Figure 2.2). The results that schools achieved in standardized tests were not a selection criterion. However, I excluded schools that the Quality Agency categorized as insufficient or lower-middle achievers (see the preceding Footnote). The study's focus was on innovation –not on improvement– but I deemed it reasonable to focus on schools in which innovations maintained a minimum proficiency in the mandated standards.

These criteria resulted in the selection of a set of three middle- or high-achieving schools that (a) were reshaping the curriculum in different ways; (b) wanted to participate in this research; and (c) included public, publicly-subsidized, and private schools with diverse educational philosophies. Additionally, although this was not a selection criterion, this set of schools represented geographic and socioeconomic diversity.

### **The Three School-Cases**

The school-cases selected had both *instrumental* and *intrinsic value* (Stake, 1995). They were included because they were a means for understanding how innovative schools address the perceived need for reshaping high school curriculum, which was their instrumental worth. However, as the literature review showed, there have been few Chilean high schools reshaping their curriculum so studying them also had value in itself, which was the cases' intrinsic worth. The study's purposes, which involve a tension between the uniqueness of each case and the aim of arriving at a broader understanding, express this dual nature of the study.

Because of the school-cases' intrinsic value, I used the schools' real names. Participants were anonymized but not the schools. Principals or *sostenedores* agreed to this. This option was also ideal because the three schools selected are well-known in Chile, so they could be easily recognized anyway. The schools were

1. *Colegio Dunalastair* (henceforth, *Dunalastair*),
2. *Liceo Bicentenario de Excelencia Polivalente San Nicolás* (henceforth, *San Nicolás*), and
3. *Liceo Intercultural Técnico-Profesional Guacolda* (henceforth, *Guacolda*).

Table 4.1 presents basic contextual, demographic, and curricular information about the schools, and Figure 4.1 shows their geographical location in Central Chile, where roughly 80% of the country's population lives. Figure 4.2 pictures the schools' innovation trajectories upon the *typology of Chilean structural innovations* in Figure 2.2.

Table 4.1

*Basic information on the selected school-cases*

	School	School type	7 <sup>th</sup> to 12 <sup>th</sup> grade enrollment	Upper secondary education track(s)	Context	Social class predominantly attending the school	Curriculum emphasis in the <i>institutional educational project</i> (PEI)	Curriculum innovation(s)
1	<i>Dunalastair</i>	Private (PK-12)	220 + 540 (two campuses)	College-bound	Urban (Metropolitan Region of Santiago)	High	British liberal arts education with a focus on excellence.	Currently moving from the <i>International Baccalaureate</i> model toward project-based learning in three integrated areas as in <i>High-Tech High</i> ( <i>humanities; math and engineering; and biosciences</i> ).
2	<i>San Nicolás</i>	Public (7-12)	1,400 (approx.)	Both college-bound and technical-vocational	Small town (Region of Ñuble)	Lower-middle	Track diversification, academic excellence, and openness to global perspectives.	Eight possible tracks for upper secondary school, four foreign language options, and an extended school day (until 5:40 pm) with a wide variety of extracurriculars in music, visual arts, sports, etc.
3	<i>Guacolda</i>	Publicly-subsidized (9-12)	406	Technical-vocational	Small town (Region of Araucanía)	Low	Intercultural Indigenous (Mapuche) school sponsored by the Catholic church.	Mandatory <i>Mapudungún</i> (Mapuche language), Mapuche culture in relation with the vocational tracks offered, and interreligious dialogue (in religious education and other pastoral activities).

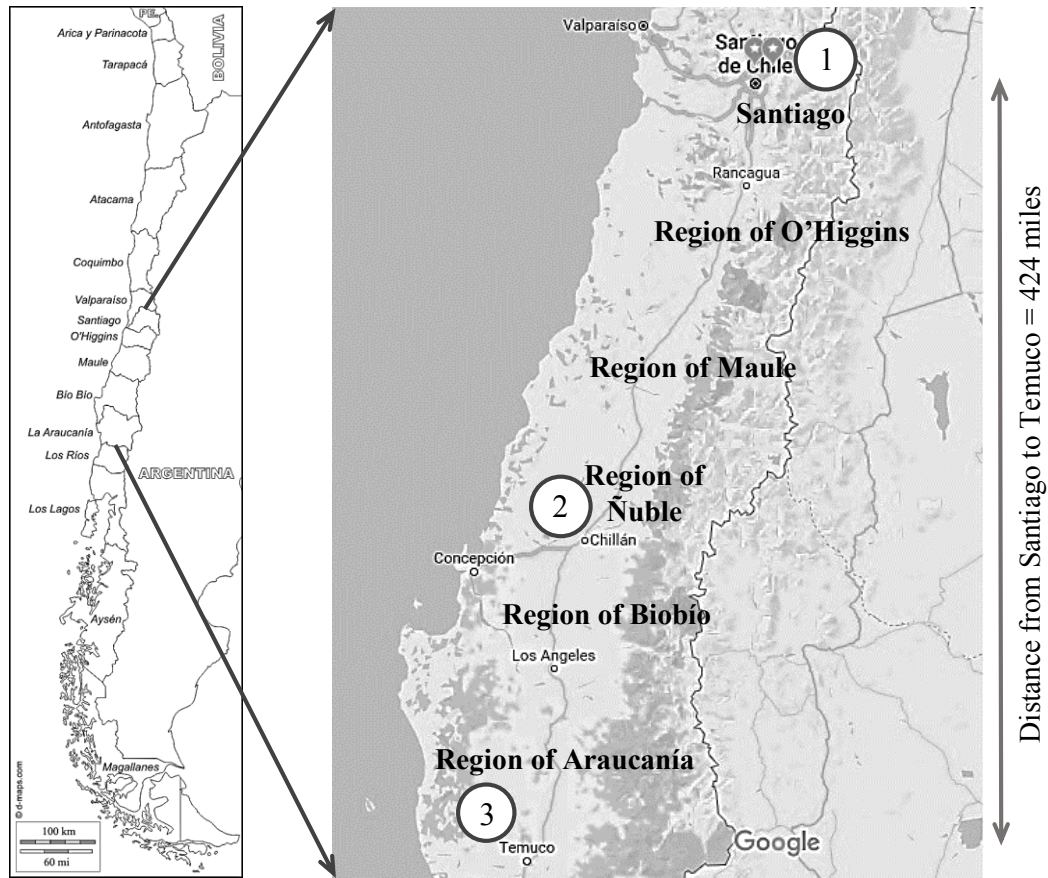


Figure 4.1. Map of Chile with the location of the selected school-cases. Source: Google Maps.

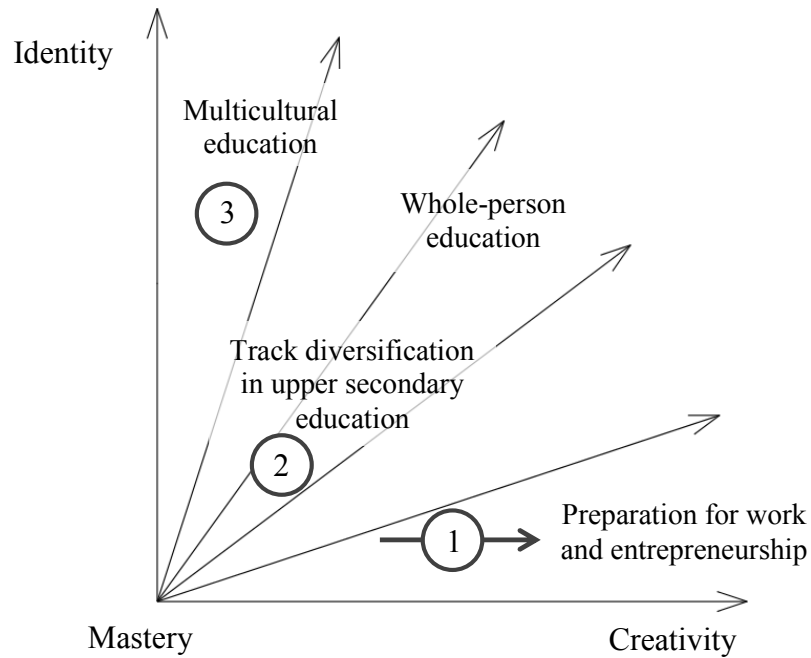


Figure 4.2. Selected schools' ideas about and directions for innovation.

After the initial selection of school-cases in November 2017, I returned to them in December 2017. This second visit to the schools had four goals: (a) get their consent letter for the Institutional Review Board process; (b) plan the formal data collection stage with them; (c) ask them for the curriculum-related documents available for me to examine them before conducting interviews (Table 4.2, in the section on data collection, has a summary of these documents, and Appendix E lists them in detail by school); and (d) document general descriptions of the schools' physical spaces (as they relate to each school's hidden curriculum).

What follows is a brief description of the three schools and their innovations. Each description ends with the pros and cons of selecting the corresponding school as I saw them in November 2017, before the actual selection. Chapters Five, Six, and Seven expand on the schools (and the results of the study), so the goal of these brief presentations is to offer a broad picture of the whole set of schools before describing and analyzing each of them in depth.

***Dunalastair***. This private school is PK-12, but I only focused on grades 7-12. The school has three campuses located in diverse affluent areas of Santiago, but I only studied two campuses: Peñalolén and Las Condes. The school used to offer the *International Baccalaureate* (IB) programs for each level, which entailed a long process of curriculum reshaping (initiated in 2001). In 2015, however, *Dunalastair* moved away from the IB and designed a new curricular model. This model is centered on interdisciplinary project-based learning along the lines of *High-Tech High* (HTH).<sup>36</sup> The Peñalolén campus led the changes in grades 7-9, while the Las Condes campus led the transformations in grades 10-12. The advantages of studying *Dunalastair* in November 2017 were that (a) their change from the IB programs to an interdisciplinary

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<sup>36</sup> HTH is a U.S. school network, leader in the promotion of 21<sup>st</sup> century skills through project-based learning. HTH belongs to the *Hewlett Foundation's Deeper Learning Network*, studied by Huberman et al. (2014), and was included in Mehta and Fine's (2012, 2015a, 2019) investigation. For more information about HTH, go to: [www.hightechhigh.org](http://www.hightechhigh.org).



curriculum in spite of being a high-achieving school was a very interesting –and unique– phenomenon, (b) their change connected with famous U.S. innovation models (see the last Footnote), and (c) they had well-trained professional teams who were interested in research that helped them to look more critically at their innovation effort. The main disadvantage of studying *Dunalastair* was that, although the curriculum changes with the IB had many years, the latest change was in an implementation phase (Fullan, 2007).

***San Nicolás.*** This public 7-12 high school is located in a working class town in the Region of Ñuble, 15.4 miles away from the city of Chillán. Since 2007, the school has experienced a rapid expansion –from 400 to 1,400 students– driven by the ideal of offering access to high-quality educational opportunities to youth from the area. At the time of the study, it offered eight different tracks from which 11<sup>th</sup>- and 12<sup>th</sup>-graders could choose (four technical-vocational and four college-bound). They had exchanged the traditional Chilean classroom system for a U.S.-like system in which teachers resided in their own classrooms and students moved between them to take their classes, which matched well with the school’s ample offering of courses in various foreign languages (which is rare in Chile), the arts, and sports. Many of these changes were possible due to the school’s enrollment growth and a discipline system that fostered a climate of rigor and academic excellence. The advantages of studying this school were that (a) the leadership team had full support from the mayor –the *sostenedor*– which gave stability to the project, (b) there were multiple, well-trained educators leading various school processes, and (c) the school leadership showed much interest for my research. The disadvantages of investigating this school were that (a) it was heavily departmentalized, so few individuals had a comprehensive view of the school’s curriculum; and (b) educators and administrators felt so proud of what they had accomplished that I was not sure of how they would react to critical questions about their change process.

**Guacolda.** This 9-12 publicly-subsidized school is located in Cholchol, a working class town in the Region of Araucanía, 18.3 miles away from the city of Temuco. The school participated in the *Montegrande* (see Chapter Two) and, for its comprehensive school reshaping effort, was considered as one of the 15 *innovative institutional projects with the potential to become an educational model* (MINEDUC, 2004). At the time of the study, this Catholic school was the country's pioneer school in 9-12 grade intercultural education. The curriculum included *Mapudungún* (Mapuche language) throughout the entirety of high school and its four technical-vocational tracks involved courses on aspects of Mapuche culture related to the corresponding track (e.g., the *nursing assistant track* included a course on Mapuche traditional medicine). Religious education was taught from an interreligious perspective, introducing Mapuche spirituality and rituals. The pros of studying this school were that (a) the school foregrounded identity and cultural issues, largely neglected in Chilean curriculum debates; and (b) its administrators craved a curricular study like this dissertation because previous studies had all been conducted by anthropologists (Garrido, S., 2015; Highleyman, 2014; Stafford, 2011). The greatest difficulty for studying *Guacolda* was that I am a Catholic priest, which is a factor that usually implies complex power dynamics within Catholic schools, and I am also a *hüinca*,<sup>37</sup> which could make it difficult to gain some teachers' and students' trust.

## **Data Collection**

Formal observations and interviews at the schools began in March 2018, after the dissertation committee and *Boston College* Institutional Review Board approved the whole project. Nevertheless, informal data collection had already begun with the first two visits to the schools on the last months of 2017. This initial data collection included the information obtained

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<sup>37</sup> *Hüinca* is the word used by Mapuches for referring to non-Mapuche Chileans. It means thief, and evokes the government's land thefts during the 19<sup>th</sup> and 20<sup>th</sup> centuries.

with the rubric in Appendix B, most of the schools' curriculum documents, general descriptions of their physical spaces, and many reflective memos that I wrote after each visit in a field notebook that I kept since the first school visit in October 2017. This section structures all the data collection, both the data collection prior to March 2018, and what came next.

The goal of data collection was to gather the best evidence available for answering the study's research questions. To this end, the theoretical framework presented in Chapter Three helped to break down the complexity of what was comprised in the foci of the two research questions: (a) each school's present whole curriculum, and (b) the process of reshaping it since the school began to innovate. Table 3.1 presented a breakdown of these two foci into 14 dimensions that, although still dense, were simpler to examine than the foci themselves.

In order to attain a rich understanding of these 14 dimensions, the study relied primarily on three types of data sources: documents, interviews, and observations. Each of these had distinct pros and cons. Documents offered historical information and were not created for the study (i.e., they offered *natural data*), but they tended to be very idealistic in comparison with schools' actual realities. Interviews were insightful and focused on the dimensions of interest, but many interviewees tended to reproduce the schools' narratives of groundbreaking innovation. Observations provided key insights about how things were actually occurring, but they were very partial as not all that should have been observed occurred when I was doing so.

Appendix D presents a matrix of which sources of data provided evidence about which of the 14 dimensions. This matrix indicates that each dimension was studied on the basis of at least three data sources, allowing for triangulation. As stated earlier in the chapter, the ideal for studying the five dimensions associated to the process of curriculum reshaping would have been to observe and interview over an extended period of time (i.e., some years). But this was not

possible. Hence, evidence for these dimensions came from documentation and interviews with historical figures at each school.

Appendix E presents the full list of the 125 documents gathered, and the 56 interviews and 44 observations conducted. Table 4.2 summarizes Appendix E. The data sources were classified into nine broad groups, three for each type of data source. In particular, the classification of interviewees into (a) administrators, (b) teachers, and (c) students was key for assuring their anonymity. In this vein, any reference to what anyone said only specifies the school, and if the person was a student, a teacher, or an administrator (which includes the *sostenedor*, i.e., the person who is ultimately responsible for the school).

Table 4.2

*Summary of data collected at each school*

		Documents	Semi-structured interviews <sup>38</sup>		Observations	Total
			Individual	Group (2-6 people)		
1	<i>Dunalastair</i>	44 15 GD 13 PP 16 CP	17 7 A 10 T	5 3 T 2 S	19 14 DI 3 CC 2 PS	85
2	<i>San Nicolás</i>	38 10 GD 21 PP 7 CP	11 5 A 6 T	10 1 A 6 T 3 S	15 11 DI 3 CC 1 PS	74
3	<i>Guacolda</i>	43 18 GD 21 PP 4 CP	11 4 A 7 T	2 1 T 1 S	10 5 DI 4 CC 1 PS	66
Total		125	39	17	44	225

GD= General documents, PP= Programs & plans, CP= Curriculum projects;

A= Administrators, T= Teachers, S= Students;

DI= Distinctive course offerings and/or school instances,

CC= Instances of curriculum construction, PS= Description of the school's physical spaces.

<sup>38</sup> The total of 39 + 17 = 56 interviews corresponds to the number of interviews coded. Interviews conducted were 62, but 6 of them were discarded during the first stage of data analysis, as it is explained in the next section (on data analysis).

Individual and group interviews lasted approximately an hour. To keep their length reasonable, they were limited to addressing 6 or fewer of the 14 dimensions of interest. The only exceptions to this limit were the *jefes de UTP*, who were either interviewed for a longer time, or twice, to cover 12 dimensions. All interviews were recorded for subsequent transcription and analysis. I used a Spanish version of the protocol in Appendix F.

This protocol was constructed modularly to cover the 14 dimensions of interest. In this sense, it was a general protocol, used for all interviews by skipping –and adapting the language of– questions according to the interviewee. Question numbers match with the dimensions in Table 3.1, so the matrix in Appendix D indicates which questions were asked to which interviewees. For instance, school principals were only asked questions 1, 3, 7, 10, 13, and 14, making the necessary transitions to keep the flow of the interviews. This modular development of the protocol shed light on how interview questions corresponded with the study’s dimensions of interest, which Anfara, Brown, and Mangione (2002) deemed as something usually overlooked. Also, three prior versions of this protocol were piloted with four former high school teachers, which helped to adjust the protocol’s length and the wording of the questions.

The use of various prompts to break the ice and to help interviewees to reflect more deeply on their school’s curriculum (and/or more freely, i.e., *out of the box*) yielded valuable comments and reflections. For instance, asking participants almost at the beginning of the interviews to graph/draw –in the case of individual interviews– or to discuss the school’s course offerings –in the case of focus groups– triggered very interesting conversations (see the beginning of the protocol in Appendix F). These prompts helped to move conversations beyond the learned narratives about innovation with which several interviewees approached our talks.

I paid special attention on participant selection for the teacher and student focus groups as it was important to take into account the heterogeneity among teachers and students that Gomm,

Hammersley, and Foster (2000) deemed essential for valid generalizations within each case. I personally selected the participants from teacher and student listings that *jefes de UTP* shared with me. In the case of regular (subject-based) teachers, I aimed at having teachers from diverse disciplines. In the case of *profesores jefe*, I picked teachers working with diverse grade-levels within the 7-12 grade sequence. Students were all 12<sup>th</sup>-graders so they had experienced most of their schools' curricula.<sup>39</sup> I selected them randomly, trying to have gender- and track-balance.

As indicated in Table 4.2, observations were of three types. First, there were observations of the schools' physical spaces, which were completed during the second visit to the schools in December 2017. I spent almost two hours at each school describing the buildings and diverse environments in which teaching and learning took place. Second, there were observations of distinctive course offerings and school instances (e.g., a parent day at *Guacolda*). Third, there were observations of specific instances of curriculum construction (e.g., teacher meetings for coordinating interdisciplinary work). The last two types of observations were specific to each school, so they were selected on the basis of documentation, references by the respective *jefe de UTP*, and feasibility (i.e., that I could conduct them while I was at the school). Although I conducted these observations aiming at open, in-depth descriptions of what I witnessed, the protocols in Appendix G helped me to stay focused on what mattered most for the dimensions of interest for which the corresponding observation was going to provide evidence.

As stated at the beginning of this section, formal interviews and observations—other than of the schools' physical spaces—began in March 2018, and spanned for two months through early May. Throughout this time, I made two several-day visits to each school aiming at getting diverse

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<sup>39</sup> Except at *Dunalastair*, where student participants were 10<sup>th</sup>- and 11<sup>th</sup>-graders (at the Peñalolén and Las Condes campuses, respectively). This exception was because the 2018 12<sup>th</sup>-graders at *Dunalastair* had not experienced the latest curriculum innovations (and 10<sup>th</sup>-graders were the oldest students at Peñalolén with experience of these innovations).

snapshots of each school, and at fostering dialogue between the school-cases by returning to them after having conducted interviews and observations at the other ones. In total, I spent 13 school days at *Colegio Dunalastair* (on both campuses), 10 at *San Nicolás*, and 8 at *Guacolda*.

In general, I interviewed the *jefe de UTP*, the counselor, and the department heads during the first visit. This gave me a broad idea of each school's curriculum and its changes, as well as of the key instances that I had to observe. The interview with the principal and the focus groups with teachers and students occurred closer to the end of fieldwork (i.e., during the return visit). This meant that the former interviews were generally more descriptive, while the latter ones were generally more reflective. By the last days at each school, I honed my focus onto specific issues that I had discovered and deemed central for the study. For instance, at *San Nicolás* I found that two teachers had approached the principal by the end of 2017 to talk about the extension of their school day (from 8:20 am to 5:40 pm). As a result, they had been given the task of—and a special time allotment for—rethinking the school schedule (which entailed thinking about how to reduce some class periods). After learning about this, I met with these teachers. During my last days at each school, it was common to feel that I had reached *saturation* in some of the dimensions explored, i.e., that these dimensions had been fairly well explored and no new insights were being generated (Bryman, 2012).

## **Data Analysis**

On top of the document, interview, and observation data in Table 4.2, the study also relied on reflective memos that I wrote in my field notebook. This fourth type of data source illustrates that data collection and analysis are part of an iterative process. As Stake (1995) put it: “there is no particular moment when data analysis begins. Analysis is a matter of giving meaning to first impressions as well as to final compilations” (p. 71). In this sense, the months after May 2018 in which I concentrated more on analysis than on data collection were not disconnected from the

informal *memoing* and *sensemaking* that transpired during –and after– each of my school visits.

Assuming this continuity, the data analysis had four stages that are described below. The bulk of this analysis was conducted in Spanish because the data were in Spanish.

**First reflective reading of the data and emergent themes.** The first stage of data analysis was to read all documents, interview transcripts, observation write-ups, and memos, while taking notes and reflecting upon them. I read the interview transcripts while listening to the corresponding audios at half speed, to edit where the transcriber had not grasped well what had been said. All this reading, notetaking, and reflection allowed me to develop my first ideas about patterns in the data, and to identify emergent themes at each school.

Table 4.3 lists these themes, which, together with the 14 dimensions derived from the theoretical framework, became the basis for developing a codebook (the next analytic stage).

Table 4.3

*Themes generated from the first reflective reading of the data*

	Emergent theme
1. <i>Dunalastair</i>	1. General characteristics of the school across the campuses.
	2. The history of curriculum changes since 2001.
	3. The IB: program to implement or <i>moral cause</i> ?
	4. Growth in administrators' analytic skills, and concerns about grades 5-8.
	5. Chilean elites' reactions to globalization and the changes in the culture.
	6. Intuitions underlying the latest innovations: interdisciplinarity, skill development, and closer student support.
	7. The <i>D-Project</i> model for grades 7-9.
	8. The process of designing <i>D-Project</i> .
	9. Lessons from implementing <i>D-Project</i> in grades 5-6 during 2016.
	10. The heart of the innovations: collaborative learning.
	11. The new student being educated with <i>D-Project</i> .
	12. Discussions around structural features of <i>D-Project</i> .
	13. Intuitions underlying <i>D-Thinking</i> (the innovation for grades 10-12).
	14. The difficult development of the two campuses towards a common vision.
	15. Paradoxes and mixed feelings regarding how teachers are viewed.
	16. A curriculum with three foci: contents, skills, and attitudes/character.
	17. The study plans' emphases: sports, science, and communication skills.
	18. The challenges of character education and <i>profesores jefe</i> 's work.



	19. Cross-curricular issues and whole-person education.
	20. Paradigm change and the future of the curriculum reshaping process.
2. <i>San Nicolás</i>	1. A narrative of meritocracy and inclusion.
	2. Flexibility and courage to adapt the curriculum.
	3. Teachers as intellectuals.
	4. Choice in the curriculum.
	5. Departments and a collected curriculum.
	6. The overextended school day and what was done with the many extra class periods.
	7. Content changes within the subject matters.
	8. The challenge of interdisciplinarity.
	9. The school's office for academic affairs and curriculum development.
	10. What about pedagogy?
	11. Cross-curricular issues and values formation.
	12. <i>Profesores jefe's</i> work.
	13. School culture and discipline.
	14. The history of changes since 2007.
3. <i>Guacolda</i>	1. The suffering of the Mapuche people at the heart of the innovations.
	2. An idea of interculturality that assumes the religious.
	3. Interculturality and the Catholic church at present.
	4. Concrete changes to the 9-12 grade study plans.
	5. Mapudungún in the curriculum.
	6. Interculturality and the core subjects of the curriculum.
	7. Interculturality in the four technical-vocational tracks.
	8. Interculturality beyond class periods.
	9. Preference for the cultural mission over academics.
	10. Academic lags and pedagogical-curricular problems.
	11. Curriculum deliberation.
	12. Milestones since the <i>Monte grande</i> (1998-2004).
	13. The future of Mapuche culture and of the school's educational project.

After reading each data file, I uploaded it to NVivo 12, the software used to code the data.

This process of uploading the data files resulted in creating cases and sub-cases within the NVivo project, which is when I came up with the classification of the data sources into the nine broad groups –three per type of data source– used in Table 4.2.

This first reading of the data also allowed me to identify key school documents that I had not collected, and documents and interviews collected that did not really provide relevant evidence for the dimensions of interest. The first point entailed asking people at the schools for those key documents. The second point had the consequence of dropping several documents

collected, as well as six interviews. In particular, I decided to drop all parent data (i.e., four focus groups) because they did not offer new substantial insights on the issues studied. This is how I finally arrived at the 125 documents and 56 interviews in Table 4.2 and Appendix E.

**Codebook development.** The second stage of data analysis was developing a codebook. The codebook combined *theory-informed codes* –derived from the 14 dimensions of interest in Table 3.1– and *inductively-developed codes* –derived from the themes that emerged from my first reading of the data in Table 4.3 (Miles & Huberman, 1994). The concrete codebook development followed three steps (DeCuir-Gunby, Marshall, & McCulloch, 2011):

1. I generated 15 theory-informed codes from the 14 dimensions in Table 3.1. Data collection had revealed what each dimension meant in practice. I merged some less significant dimensions into a single code and broke down others into several codes (because, in practice, these dimensions comprised many important things that needed to be disaggregated).
2. I compared the last 15 codes with the emergent themes in Table 4.3 to check whether some codes needed revision or if I needed to add new codes. The results were (a) five new codes; (b) dropping 1 of these 15 theory-informed codes –namely, *silences in the curriculum*– because it was not really useful when looking at the concrete data; and (c) changes in the labeling and definition of several of the remaining codes (see Appendix H).
3. This 19-code codebook was refined by applying it to small chunks of the data. Concretely, I applied it to nine data files, one from each type of data source from each school (i.e., one observation write-up from each school, one interview transcript from each school, etc.). This helped me to hone the codes’ definitions and confirmed that the 19 codes were appropriate to capture the most relevant aspects of the data.

The full codebook is in Appendix H, and Table 4.4 presents a summary of it.

Table 4.4

*Summary of the codes and sub-codes for analyzing the data*

	Code		Sub-codes
The whole curriculum of the school at present	1	General emphases	
	2	General practices	
	3	Academic emphases and practices	Mathematics; Language (Spanish); Natural sciences; History and social sciences; Other languages; Arts; Religious education; Physical education and sports; Technology; Philosophy; Technical-vocational education
	4	Extracurriculars	
	5	Cross-department work	
	6	Pedagogical issues	
	7	Student affairs	Counseling; Support for well-being; Discipline; <i>Curso</i> -level issues
	8	Cross-curricular goals	Physical; Social-emotional; Cognitive-intellectual; Social-cultural; Moral; Spiritual; Productivity and work; Life project; Use of ICTs
	9	Hidden curriculum	
	10	Whole experience	
	11	Present deliberations	
	12	Structures for school-based curriculum deliberation	Teacher participation; Student voice
The process of curriculum change	13	Historical context	
	14	Curriculum changes	
	15	Narrative	Personal experiences
	16	External supports	
	17	Relationship with structures	
	18	Historical deliberations	
	19	Syntheses and future projections	

**Coding and theorizing.** The third stage of data analysis was the actual coding of the data using NVivo 12, and then theorizing the relationships between the codes. The level of coding was not line by line, or on the paragraph level, but on what DeCuir-Gunby et al. (2011) called the *level of meaning*, i.e., “a line, sentence, or paragraph, as long as the essence is the same” (p. 145). Also, I followed Miles and Huberman’s (1994) advice that, unless a segment has both descriptive and inferential meanings, researchers should “use a single code for [each] segment” (p. 66). Table

4.5 presents the number of segments coded under each code at each school, which gives a broad idea of which issues were most salient at each of the schools.

Table 4.5

*Code frequencies at each school*

			<i>Dunalastair</i>		<i>San Nicolás</i>		<i>Guacolda</i>	
			Segments coded	% of the school's codes	Segments coded	% of the school's codes	Segments coded	% of the school's codes
The whole curriculum of the school at present	1	General emphases	77	4.5%	91	6.0%	55	5.0%
	2	General practices	119	7.0%	76	5.0%	77	7.0%
	3	Academic emphases and practices	290	17.1%	231	15.3%	312	28.5%
	4	Extracurriculars	12	0.7%	35	2.3%	17	1.6%
	5	Cross-department work	42	2.5%	68	4.5%	14	1.3%
	6	Pedagogical issues	64	3.8%	32	2.1%	28	2.6%
	7	Student affairs	101	6.0%	106	7.0%	31	2.8%
	8	Cross-curricular goals	84	5.0%	107	7.1%	29	2.7%
	9	Hidden curriculum	41	2.4%	39	2.6%	17	1.6%
	10	Whole experience	88	5.2%	80	5.3%	43	3.9%
	11	Present deliberations	152	9.0%	117	7.7%	60	5.5%
	12	Structures for school-based curriculum deliberation	61	3.6%	95	6.3%	33	3.0%
The process of curriculum change	13	Historical context	56	3.3%	70	4.6%	69	6.3%
	14	Curriculum changes	74	4.4%	66	4.4%	40	3.7%
	15	Narrative	115	6.8%	95	6.3%	104	9.5%
	16	External supports	57	3.4%	28	1.9%	38	3.5%
	17	Relationship with structures	124	7.3%	68	4.5%	58	5.3%
	18	Historical deliberations	108	6.4%	56	3.7%	28	2.6%
	19	Syntheses and future projections	30	1.8%	53	3.5%	40	3.7%
Total			1,695	100.0%	1,513	100.0%	1,093	100.0%

After coding, I worked on making sense of the data gathered under each code, school by school. In doing so, I realized that the 19 codes clustered into the seven broad areas in Table 4.6. I then constructed concise headings –for potential sections in the case write-ups– that captured the essence of the data coded under each cluster of codes. Triangulating data from different sources within each cluster was central to this step. These seven headings (per school) were the first elements of my conceptualization of each school's curriculum model. Also, since the sixth

and seventh clusters (i.e., *curriculum deliberations* and *structures for curriculum deliberations*) combined aspects of both research foci (i.e., elements for answering both research questions), the corresponding headings captured my first ideas of core issues transversal to each school-case.

Table 4.6

*Clusters of codes for building theory*

	Cluster of codes	Code		Study focus
I	History and changes	13	Historical context	The process of curriculum change
		14	Curriculum changes	
II	Narrative	15	Narrative	The whole curriculum of the school at present
III	Official curriculum	1	General emphases	
		2	General practices	
		3	Academic emphases and practices	
		4	Extracurriculars	
IV	Interdisciplinarity and pedagogy	5	Cross-department work	
		6	Pedagogical issues	
V	<i>Interstitial curriculum</i> <sup>40</sup>	7	Student affairs	
		8	Cross-curricular goals	
		9	Hidden curriculum	
		10	Whole experience	
VI	Curriculum deliberations	18	Historical deliberations	Both foci
		11	Present deliberations	
		19	Syntheses and future projections	
VII	Structures for curriculum deliberation	12	Structures for school-based curriculum deliberation	
		16	External supports	
		17	Relationship with structures	

Next, I moved from these headings for the data gathered under each cluster of codes to Erickson's (1986) indication of developing empirically-grounded assertions and linking them in an *assertion tree*, as pictured in Figure 4.3. Assertions varied in scope and level of inference, and usually related to one of the clusters of codes (i.e., they were about the school's narrative of its

<sup>40</sup> The *interstitial curriculum* is a concept proposed by Thompson (1998) for referring to those learning instances that take place outside or between subject-matters, in situations such as assemblies, counseling, and so on, which are like "the mortar that holds curricular bricks together" (Mackenzie, 2000, p. 42). In short, "Thompson ... suggest[ed] that we think of the curriculum as a *brick wall*. In this image, subjects are like bricks of different shapes and sizes, and the interstitial curriculum is the between- and across-subjects cement that gives unity to the curriculum as a whole" (García-Huidobro, 2018, p. 35).

change process, or the school's official curriculum, etc.). In linking the assertions for each school, I found patterns of generalization within the cases that are the core of the findings presented in Chapters Five through Seven. This theory-building step is when I formulated answers to the research questions for each school-case, making these two assertions the most general assertions in the respective assertion tree.

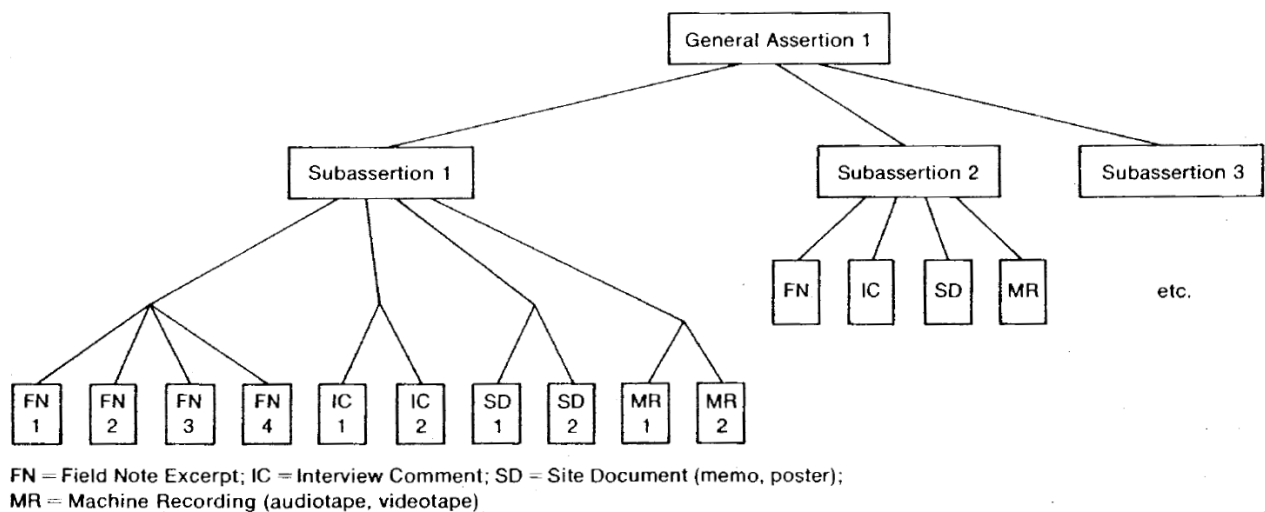


Figure 4.3. Assertion tree with key linkages between data and assertions (Erickson, 1986, p.148).

**Theory validation and case write-ups.** The fourth stage of data analysis entailed validating the theories developed through the assertion tree process with people at each school, and writing up the cases. These two things were done in a different order with *San Nicolás* and *Guacolda* on the one hand, and with *Dunalastair* on the other. With *San Nicolás* and *Guacolda*, I first presented the findings to people at each school, and then wrote up the cases after having received participant feedback. With *Dunalastair*, I first wrote up the case, and then asked people at the school for written feedback.

The difference in sequence was based upon my observation that people at *San Nicolás* and *Guacolda* did not read English, so I knew from the start that participant validation with them had to occur before writing up these cases (which is when I moved from the Spanish data to English).

I had an opportunity to travel to Chile in November 2018 and I used it to visit *San Nicolás* and *Guacolda* to get their feedback on the findings that I had for them at that point.

The structure of the meetings for validating my findings at *San Nicolás* and *Guacolda* was the same. I presented for 30 minutes, and then we discussed the findings for another 30 minutes. At *San Nicolás*, I presented to a group of four teachers gathered explicitly for this purpose. At *Guacolda*, I presented to all the faculty in their weekly meeting. At both schools I asked four questions to the educators: (a) Did I get any *fact(s)* wrong? (b) Do my results for the school *make sense* and capture the most important issues related to the study foci? (c) Knowing that the case write-up will use the school's name (thus, its contents may affect the school's reputation), is there *anything that should be said differently*? (d) Do you have any other *comments or suggestions* for writing up the school-case?

Feedback at *San Nicolás* and *Guacolda* was different. At *San Nicolás*, teachers agreed that results were accurate and made sense, and there was nothing that needed to be handled with special care because of using the school's name. Most of the discussion revolved around results that teachers found thought-provoking. At *Guacolda*, teachers agreed that results on the whole curriculum at present were accurate and made sense. Nevertheless, an older teacher pointed out omissions in my depiction of the school's historical process of curriculum change. We spoke at length after the meeting, and I gathered two historical documents that I had not collected –nor heard about– before. These new data were not analyzed in the same way that the rest of the data, so they are not included in Appendix E (nor in Table 4.2). Nonetheless, they informed the write-up for *Guacolda* as they addressed initial oversights in the school's process of curriculum innovation.<sup>41</sup>

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<sup>41</sup> The new data sources were (a) my notes on the conversation with this teacher, (b) a paper on the origins of the innovations at *Guacolda* that was presented at a 1989 conference on

Before writing up the cases, I reviewed examples of school-case write-ups by Mehta and Fine (2019) and Bellei et al. (2014). These examples reminded me that it helps to begin by offering the background needed to locate the school within its context. Afterward, these examples moved to the descriptions and analyses of the study foci, keeping a reasonable balance between breadth and depth. Something that I cherished of these write-ups was that, in general, they shared the *real story*, i.e., they presented the contradictions and the messiness at the schools, while still honoring people's work.

I first wrote up the *Dunalastair*-case because this text was necessary for validating the findings with people at the school. Two administrators from *Dunalastair* read the text and either sent me written feedback or commented on the write-up with me over the phone. They clarified some aspects of the school's historical process of curriculum reshaping. They also asked me to explain some of my inferences further and handle more carefully one particularly sensitive issue, given that I was using the school's real name. Chapter Five is the revised version of this write-up.

Next, I wrote up the *San Nicolás*- and *Guacolda*-cases (Chapters Six and Seven, respectively). I did not send these write-ups to the schools because I had already presented the central findings to them in oral presentations in Spanish and administrators at these schools did not read English.

### **Short Comments on Validity, Ethics, and Positionality**

Maxwell (2005) understood validity as the “correctness or credibility of a description, conclusion, explanation, [or] interpretation” (p. 106). Based upon this definition, he proposed several checks for increasing the validity of a chiefly qualitative case study like this dissertation.

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intercultural education (Vidal, Lagos, Juanico, & Ojeda, 1991), and (c) an article published in *Kimel Dungu* –a discontinued magazine– describing the school's first curriculum reshaping efforts during the second half of the 1980s (Caniqueo & Durán, 1990).



Among these checks were collecting rich data on the various dimensions of interest, safeguarding that the data collected allows for triangulation on these dimensions, and aiming at having participant validation. These three checks were central for this study, as well as being transparent about the research process actually done, as opposed to giving idealized accounts of what happened (Gibbert & Ruigrok, 2010).

The most significant limitation of the method concerned how I addressed questions about the schools' processes of curriculum reshaping. As already explained, my reconstruction of these processes was based upon documentation and interviews with senior educators, not upon a longitudinal study. I believe that this limitation explains why most participant validation both at *Guacolda* and *Dunalastair* related to filling in omissions or making corrections on this matter.

Two issues were critical from an ethical perspective. On the one hand, using the school's official names demanded that I was conscientious regarding what I wrote about each school. This care related to being rigorous (and not making unwarranted conclusions), as well as weighing what findings could potentially harm a school's reputation. On the other hand, at the three schools I encountered many internal conflicts of different kinds. Some of these conflicts were unrelated to the dissertation foci, but others were directly related because of understanding the curriculum as *shared framework of aims and contents*. Handling these internal conflicts was tricky both when I went to *San Nicolás* and *Guacolda* to validate the findings in November 2018, and when I wrote up the three cases. I hope that my presentation of the cases is both truthful and respectful of the people and their work.

Finally, I have done my best at being transparent about how personal experiences, beliefs, and options underlie several aspects of the study. In the Preface and Chapter One, I shared the story and the impressions that underlie the dissertation's research problem, framed as the need for reshaping high school curricula. In Chapter Three I presented the lens that I considered most

appropriate for conducting this study, exposing my preference for the deliberative tradition and Bernstein's (1971) and Meyer's (1977, 1980) sociological approaches to the curriculum. When selecting the school-cases, I went beyond the dominant 21<sup>st</sup> century skills rationale for curriculum innovation and included non-dominant drivers for innovation such as the preservation of cultural identity. I also stated that, due to *Guacolda's* Catholic and Mapuche identities, I foresaw that several people at this school would relate with me as a priest or as a *hüinca*. Beyond that, I understood well that all fieldwork was influenced by the fact that I am a white male from Santiago who was studying a doctorate in the U.S. (which is something intimidating for many Chilean educators). In sum, the whole research was deeply influenced by who I am and what I believe. I hope to have been sufficiently transparent about it so readers can judge for themselves any ways in which my subjectivity may influence my interpretations of the data.

## CHAPTER FIVE

### ***Dunalastair: Dilemmas of Constructivism***

This chapter presents the findings for *Dunalastair* to understand its new curricular model in rich and nuanced ways. Among the three schools studied, *Dunalastair* is the case moving from the traditional focus on *mastery* –i.e., developing deep disciplinary knowledge– toward more focus on *creativity* –i.e., promoting 21<sup>st</sup> century skills (see Figure 4.2). The school exemplifies a Chilean attempt to implement interdisciplinary project-based learning, the most common strategy to promote 21<sup>st</sup> century skills among the high schools that participate in the U.S. *Deeper Learning Network* (Huberman et al., 2014; Mehta & Fine, 2019).

*Dunalastair* is a PK-12 private school that has three campuses in diverse affluent areas of Santiago, but the study focused only on (a) grades 7-12, and (b) two of the three campuses. These campuses were Peñalolén and Las Condes. In a nutshell, the case is how this school shifted radically from the *International Baccalaureate* (IB) programs to implementing project- and problem-based learning, designing the core of this innovation at the newest and smallest campus (i.e., Peñalolén) and then implementing it at the oldest and largest campus (i.e., Las Condes). The innovation is too young (and was studied at a too early stage) to make any definitive conclusions about its future. However, I titled the chapter *Dilemmas of Constructivism* because the case shows advantages and drawbacks of adopting what an administrator termed a “fully-constructivist view.”

The fact that *Dunalastair* is an elite college-bound school is central to the chapter. In Chile, only 7.7% of K-12 students attend private schools, and elite schools are a fraction of this group.<sup>42</sup> According to Madrid (2015), Chilean elite schools are of three types: (a) traditional

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<sup>42</sup> See Footnote 10 in Chapter One.

Catholic, founded before 1965; (b) traditional European (British, French, German, etc.); or (c) new Catholic, founded after 1965. *Dunalastair* belongs to the *Association of British Schools in Chile*, falling into the second type. This *Association* groups 21 such schools for “encourage[ing] and support[ing] [them] in their endeavor to provide an education of quality that reflects the best of British practice.”<sup>43</sup>

Regarding results, *Dunalastair* is not one of the top 10 traditional elite schools in Santiago, but a good school for the children of the new high class of emerging businessmen and professionals (Bellei, Orellana, & Canales, 2019). The country’s Quality Agency categorized the school as a high achiever in 2016 and a middle achiever in 2017.<sup>44</sup> Typically, students from *Dunalastair* transition from this school to nearby private colleges and universities.

The history of the school before the 18 years that are the focus of this chapter goes back to the first half of the 20<sup>th</sup> century. *Dunalastair* was founded in 1937 as a boarding school for girls interested in bilingual education in the British tradition. However, this first period ended abruptly in the early 1970s, when the school closed. In 1981, the daughter of the founder –along with three partners– re-opened the school, making it co-educational (and not a boarding school anymore). In 1989, this new school moved to the location of the current Las Condes campus.

By the beginning of the 2000s, *Dunalastair* was practically bankrupt, and the parent association took control of the school. The parents hired the current principal, who arrived during the second half of 2001. This event marked the beginning of the process of curriculum innovation that was the focus of the study.

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<sup>43</sup> <http://www.absch.cl/w/index.php/en/the-association/us>

<sup>44</sup> This means that in 2016 students at *Dunalastair* did better than what was expected considering the socioeconomic context, and in 2017 they did similar to what was expected considering the socioeconomic context (Agencia Calidad, 2017). These categorizations gave a 66.7% weigh to academic achievement (in standardized tests) and a 33.3% weigh to non-academic indicators of personal and social development.

After this brief introduction, the chapter has three sections. First, I describe the school's curriculum reshaping since 2001, proposing that it has had three stages. Second, I unearth the knowledge, the skills, and the values education currently emphasized at *Dunalastair*, presenting a full picture of the school's 7-12 grade curriculum. Finally, I conceptualize this high school curricular model as more constructivist, collaborative, and scientific than the traditional Chilean college-bound high school, representing a movement from the college-bound model towards the technical-vocational model. This final section also discusses how could this movement occur at an elite school, where one would expect that the tendency is to preserve the tradition.

The first two sections are more descriptive than the third one, where I theorize *Dunalastair*'s high school curricular model. This is so because I deem it critical to offer the reader descriptions of the school's curriculum (and its changes) stemming directly from the data before I propose a theoretical conceptualization. These descriptions –and the figures and tables presented– are not something available elsewhere (e.g., in school documentation), but original accounts that I put together after analyzing and synthesizing all the coded data.

### **From the *International Baccalaureate* (IB) Programs to Project-Based Learning**

When asked about the evolution of the school's curriculum, most interviewees who had been at *Dunalastair* more than five years (i.e., chiefly educators from the Las Condes campus) mentioned two milestones: (a) the implementation of the IB program for grades 10-12 –the *IB Diploma Program* (IBDP)– and (b) the recent transition toward active pedagogies, especially project-based learning. As a teacher put it, “Until the principal arrived in 2001, the school was absolutely traditional ... When he arrived, he brought the IBDP, which was a revolution that made everyone think ... Now [i.e., since 2015] we are shifting paradigms again.”

This perspective misses what happened in-between these two milestones, though. Taking this into account, I submit that the school's curriculum reshaping occurred in three stages:

1. From 2001 to 2005, the school installed the IBDP at Las Condes (the only campus then).
2. From 2006 to 2014, the school expanded under the lead of a new *sostenedor* that replaced the parent association in control since the early 2000s.<sup>45</sup> This expansion was twofold:
  - from one to three campuses (with Peñalolén entering the scene in August 2010); and
  - from only having the IBDP at Las Condes to also having the IB *Primary Years Program* (PYP) at the three campuses, and beginning to implement the IB *Middle Years Program* (MYP) at Las Condes.<sup>46</sup>
3. Since 2015, the school opted for designing a new curriculum that included project-based learning, and withdrew from the IB.

Figure 5.1 illustrates this evolution considering the two campuses studied.

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<sup>45</sup> In Chile, the *sostenedor* is the person or group ultimately responsible for the school (see Appendix A).

<sup>46</sup> The IB is an international organization that offers educational programs philosophically aligned to develop skills needed to live in the globalized world. These programs include (a) the PYP for grades PK-4, (b) the MYP for grades 5-9, and (c) the IBDP for college-bound upper high school. Each program has a curriculum framework, an assessment system, and professional development for the educators involved in teaching and leading the program.

The IBDP is the IB's oldest program. It began in 1968 with the goal of providing a more humanistic education in the face of reforms that were leading to increasing secondary school specialization. It shares many features with the U.S. *Advanced Placement* but is different in that it attempts to integrate the humanities across all subjects (White, J., 2012). On top of courses in six subject areas –mathematics, language and literature, language acquisition, individuals and societies, sciences, and the arts– there are three mandatory requirements: (a) *theory of knowledge*, a course designed to provide coherence to the whole curriculum by exploring the nature of knowledge across disciplines; (b) an *extended essay*; and (c) *creativity, action, service*, which encourages students to get involved in artistic pursuits, sports, and community service work, by logging 50 hours of each over the IBDP.

The PYP and the MYP were developed in 1997 and 1994, respectively, completing what today is termed the *IB continuum*. The PYP is based on a fully-constructivist plan of inquiry-based transdisciplinary learning (i.e., there are no disciplinary distinctions). Instead of introducing the disciplines, teaching occurs around six transversal themes addressed differently every year: (a) who we are, (b) where we are in place and time, (c) how we express ourselves, (d) how the world works, (e) how we organize ourselves, and (f) sharing the planet.

The MYP introduces eight subject groups –the six IBDP areas plus physical education and design– but requires schools to offer at least one interdisciplinary unit per year. Also, MYP students have to complete a long-term personal project by the end of the program.

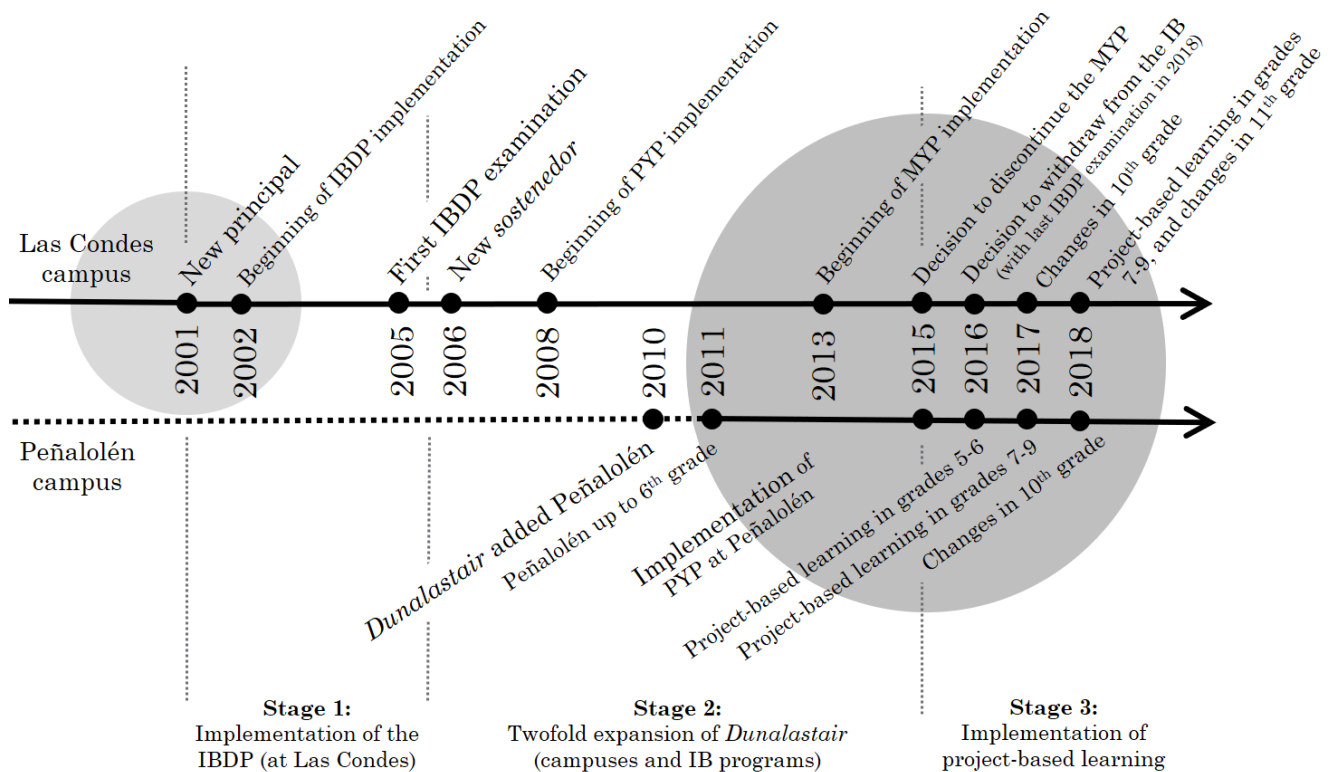


Figure 5.1. Timeline of *Dunalastair*'s curriculum evolution since 2001 with a 7-12 grade focus.

The timeline draws attention to several points significant for the case. First, although *Dunalastair*'s curriculum reshaping had three stages, only two curriculum deliberations underlay these stages: (a) embracing the IB (which was sustained through the first two stages) and (b) opting for designing the school's own model. The circles in Figure 5.1 represent these deliberations. Second, the fact that *Dunalastair* has several campuses –with different histories– poses significant challenges for the idea of deliberating upon a shared curriculum. Third, Peñalolén not only had a short history with *Dunalastair* at the time in which the study was conducted; it also had minimal high school experience.<sup>47</sup> The following subsections present what

<sup>47</sup> The Peñalolén campus was a young, small school that *Dunalastair* bought in 2010. At that time, it was a PK-7 school. The 2010 6<sup>th</sup>- and 7<sup>th</sup>-graders were too few for building a sustainable high school section (less than 10 per cohort), so they transferred to Las Condes. Peñalolén began to structure the high school in 2012 (when the 2010 5<sup>th</sup>-graders entered 7<sup>th</sup> grade). The high school section grew year by year until these students reached 12<sup>th</sup> grade in 2017 and became Peñalolén's first graduates.

the data indicated about *Dunalastair*'s stages of curriculum reshaping and the unfolding of the two core deliberations during these stages.

**Implementation of the IB *Diploma Program* (IBDP) (2001-2005).** *Dunalastair*'s current principal was appointed in 2001 because the parent board of that time wanted to implement the IBDP at the school (i.e., at the Las Condes campus). This process of implementation began in 2002. An administrator commented: "It was very interesting to introduce the *Diploma* ... It gave the school an academic punch that has it where it is now. In some sense, we still have the inertia of that change in how it increased academic rigor in the school." The first group of students began the IBDP in early 2004 and took their final examinations by the end of 2005.

From a broader perspective, *Dunalastair* crafted its first *institutional educational project* (PEI for its Spanish initials) in 2005, at the end of this first stage of curriculum reshaping. This PEI recounted the school's history up to that moment and touched upon the membership to the *Association of British Schools in Chile* (CD, 2005). Its essence, however, was the statement of five overarching curricular priorities:<sup>48</sup>

1. *Academic excellence.* The PEI declared a commitment to excellent results evinced by external references. IBDP certifications were a concrete example of these references.
2. *Bilingualism.* The PEI explained that, given the school's roots in the British tradition, *Dunalastair* aimed at teaching English as a second language.
3. *Use of technology.* The school declared its commitment to continuously explore the possibilities that technology offers for the educational process.

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<sup>48</sup> Strictly speaking, this PEI stated 10 priorities (termed *objectives* in spite of not being stated as such), four academic and six values-related. I fused the latter six priorities into one (the fifth in the list), both for the sake of brevity and because many interviewees indicated that *Dunalastair*'s values education could be summarized as an *effort to instill fairness*.



4. *Development of the arts*. Indicating an assessment that Chilean education did not value the arts sufficiently, the PEI stated that *Dunalastair* would give them more importance in the school's curriculum.
5. *A fairness-centered values education*. This priority captured the fact that most interviewees deemed *fairness* as the school's core value.

*Sports practice* was not listed with these five overarching priorities, but the PEI and several interviewees referred to it so much that I deemed it the school's sixth curricular priority. The PEI declared that "sport is a central part of the education at *Dunalastair* because, through it, the school teaches core values for daily coexistence" (CD, 2005, para. 6).

These six curricular priorities give a broad idea of *Dunalastair*'s whole curriculum in 2005. This curriculum went beyond the IBDP, yet it was well aligned with the IB's humanistic and cosmopolitan philosophy (White, J., 2012).

**Twofold expansion of *Dunalastair* (2006-2014).** Although the change in the school's *sostenedor* occurred in 2005, the new –and current– *representative of the sostenedor* (henceforth, simply *sostenedor*) arrived in 2006. Because of the critical administrative situation when she came, "at first, her main work was to upgrade the infrastructure ... and restructure the administration" (Administrator). Most of the buildings at Las Condes were re-built within a year, and the second campus began its operation soon after. In 2010, *Dunalastair* bought the small school that became the Peñalolén campus, completing the school's three-campus structure.

On the curriculum side, the *sostenedor* remembered that "when I arrived ... the principal insisted that we become a full IB school, from the lower grades up to the IBDP." In other words, the principal wanted to implement the other IB programs. Continuous dialogue between the *sostenedor* and the principal led to a decision to implement the PYP, which began at Las Condes in 2008. The *sostenedor*'s memories of this process still exuded joy after 10 years: "the PYP

convinced me deeply ... I still remember the first professional development sessions ... How teachers were excited, and it worked ... The program grew ... and became very robust.”

In 2012, the principal proposed to move forward with the implementation of the MYP. The *sostenedor* recalled that she was not as convinced of the MYP as she was of the PYP, but they still decided to give it a try. This process of implementation began at Las Condes in 2013. According to several administrators, however, it did not work as well as the PYP. Alluding to the quality of the three programs comprising the *IB continuum*, one of them remarked: “the MYP came up short ... I had the strange impression of having copper piping, then plastic, and then copper again.” This was the situation in 2015, when the administration decided to explore other educational alternatives for grades 5-9 that resulted in the design of a new model.

The fact that the 2005 PEI remained *Dunalastair*’s PEI until 2017 means that the curriculum priorities from the first stage of curriculum reshaping carried over to the second stage. Peñalolén simply adopted this PEI and the curriculum at Las Condes was not much affected by the school’s expansion. In other words, the curriculum deliberation of embracing the IB (its programs and philosophy) was sustained through the first and second stages.

**Implementation of project-based learning (since 2015).** Why did *Dunalastair* change its innovation trajectory in 2015? The answer to this question relates to the aforesaid dissatisfaction with the MYP, but there is more to it. As with most far-reaching deliberations, this change was the result of various factors. This subsection explains these factors and describes the change.

To fully grasp how things unfolded, it is relevant to have in mind the context at each campus by 2015. Las Condes was in the process of becoming fully IB, while “Peñalolén’s challenge during those years was to grow and structure the high school” (Administrator). Indeed, Peñalolén only had students up to 10<sup>th</sup> grade and did not have academic departments yet.

A first driver of the change, according to several administrators, was the pervasiveness of many problems in the *middle years* at all campuses. One administrator shared that, before 2015

We [the administration team] began to reflect that the areas where we [the school] were most deficient ... coincided with the middle years ... The problem that in 5<sup>th</sup> grade the student is eager to learn, super excited ... and suddenly begins to challenge everything. Another administrator noted, “We had important discipline problems in those ages ... and nobody wanted to teach in 7<sup>th</sup> or 8<sup>th</sup> grade.” These were the challenges before which the MYP came up short. A third administrator acknowledged that “the transition from the PYP [already implemented at the three campuses] to the following grades, to the subjects, was a disaster ... Children went from having a great time ... to boredom.”<sup>49</sup> In other words, the disappointment with the MYP was not an impression that the MYP was worse than other curricula for grades 5-9. Rather, it was the impression that the MYP was similar to other curricula in that it did not offer a solution to many essential educational challenges of the middle years.

A second key factor in this deliberation was the discourse about the need for teaching 21<sup>st</sup> century skills, which began to gain traction in Chile around this time. As mentioned in Chapters One and Two, after student protests in 2006 and 2011, several foundations and NGOs began to propose innovations in response to widely shared concerns for students’ depth of learning. An administrator recalled that, “even though the demand [for better education] emerged from public schools, newspapers began to publish all sorts of commentaries questioning what the country was doing in education.” According to several administrators, this general atmosphere fostered reflections among them that were a critical factor in the 2015 deliberation.

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<sup>49</sup> Footnote 46 describes specific features of the PYP and the MYP.

The third factor that led to the change was knowing about other schools that had successfully reshaped the curriculum for the middle years. Concretely, what occurred was that, due to the first two factors, the *sostenedor* and the principal decided to discontinue the implementation of the MYP. *Dunalastair* would design something different for these grades. Also, the *sostenedor* knew about *High-Tech High* (HTH) in San Diego, U.S., and suggested that its project-based learning model could be what they were looking for.<sup>50</sup> She and the principal shared this plan with the rest of the administrators in their mid-year retreat of 2015, and everybody jumped on board. Right there, “it was decided that, ok, it would be project-based learning. However, first, we had to go and see what this was about in practice” (Administrator). Five administrators visited HTH in September 2015 and returned to Chile convinced that project-based learning was “superior” to the MYP.<sup>51</sup>

All the data indicated that, at that point, the plan was not to entirely withdraw from the IB. The *sostenedor* and the principal had different appreciations of the IB. The former never liked the idea of implementing external programs, despite their philosophy; and the latter wholeheartedly believed that the IB had “many elements of a moral cause” worthy of embracing almost at any cost. However, assessments of the IBDP and the PYP were satisfactory in general, so the only decision at the moment was to discontinue the implementation of the MYP.

The *sostenedor* and the principal also decided that the new model for the middle years would begin at Peñalolén because it was the smallest campus and there was less at stake (in terms of a tradition and results to uphold). Accordingly, the following steps occurred at Peñalolén. An administrator shared that, “when we came back [from HTH] we began to think ... at Peñalolén,

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<sup>50</sup> The section on *U.S. High-School-Case Studies* in Chapter Two has more references to HTH.

<sup>51</sup> HTH was *Dunalastair*’s first model of project-based learning, but over time the school’s administrators studied and integrated features of other models (e.g., *Buck Institute*’s gold standard project-based learning [Larmer, Mergendoller, & Boss, 2015]).

in our weekly meetings of the campus administration team: What grades? How should we start? ... All that was in October [2015].” Soon, they decided that the innovation would begin in grades 5-6 because *Dunalastair* would design a continuum from the transdisciplinary PYP to the discipline-based IBDP, using project-based learning as the prime pedagogy. In this sense, “the PYP ended up being the engine behind the changes ... Its *fully-constructivist* view ... helped us to think of how should education be in the following school years” (Administrator).

Although the focus of this study is on curriculum reshaping for grades 7-12, having an idea of what occurred before (in grades 5-6) is essential to understand the innovation in grades 7-9. In a nutshell, diverse data sources indicated that the core design principle for grades 5-6 was to extend three aspects of the curriculum for elementary school to the following school years:

- inquiry-based learning;
- a gradual introduction of disciplinary distinctions; and
- the extended presence of the teacher in the classroom (i.e., transitioning gradually from the day-long presence in elementary school to the specialist rotation in upper high school).

Interdisciplinary project-based learning was deemed as the best pedagogical method for achieving this extension in practice. The innovation for grades 5-6 was designed during the last two months of 2015 and implemented (also at Peñalolén) during the 2016 school year.<sup>52</sup>

During 2016, administrators at Peñalolén oversaw the implementation of the innovation for grades 5-6 and, at the same time, designed the new curriculum for grades 7-9. The core design principle for the latter innovation was the same than for grades 5-6 but adding more disciplinary distinctions (which meant bringing more teachers into the classroom). Concretely, project work in grades 5-6 combined five subjects and was led by two teachers who worked with the students

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<sup>52</sup> The school year in Chile goes from early March to early December.

for most of the week. In grades 7-9, on the other hand, project work occurred in three integrated areas, taught by two teachers each, so students saw six teachers for most of the week. Table 5.1 contains my reconstruction of the decisions in the design of the new curriculum for grades 7-9.

The reasons behind the decisions are telling of what drove the curriculum reshaping.

Table 5.1

*Key decisions in the design of the innovation for grades 7-9 at Peñalolén (in order of occurrence)*

	Decision	When	Why	What it entailed
1	Project-based learning will be the core pedagogical method.	2015	It fostered the skills that <i>Dunalastair</i> aimed at teaching and allowed for disciplinary integration that brought teachers together.	Longer time blocks for project work in the school schedule.
2	Time blocks for project work will comprise three 45-minute periods (i.e., they will last 2 hours and 15 minutes).	2016	Project work required longer periods than regular classwork. Also, Chilean teachers were used to the two-period time blocks (the most common in Chile) so a format change would force them to realize that this innovation was different from what they did before.	Integrating subjects mandated in the Chilean curriculum framework in a way that allows for enough of these three-period time blocks for each integrated area.
3	There will be three integrated areas worked through project-based learning, namely, <i>humanities; math and engineering; and biosciences.</i>		These were the three integrated areas at HTH, and it was possible to combine subjects mandated in the Chilean curriculum framework to have these same integrated areas in Chile.	Teaching most of the mandated learning goals for these subjects through project-based learning.
4	This curriculum will not be only for grades 7-8, but also for 9 <sup>th</sup> grade.		Developmental psychology and the tradition with the IB (of beginning the IBDP halfway through 10 <sup>th</sup> grade) suggested that it was reasonable to structure a 7-9 grade level that shared a similar curriculum structure.	A lot of anxiety for how project-based learning would affect students' future because, in Chile, high school grades for college admission count from 9 <sup>th</sup> grade on.
5	The design will be implemented in grades 7-9 immediately (i.e., not gradually).		It meant that all teachers in this level moved towards project-based learning instead of having some teachers using project-based learning, some teachers using traditional instructional methods, and some teachers using both approaches at different moments.	Much improvisation due to the inherent complexities of project-based learning and the lack of experience. Also, 2017 9 <sup>th</sup> -graders at Peñalolén were introduced to project-based learning only for a year.

Source: My elaboration based on the data analysis.

The next section describes the new 7-9 grade curriculum in detail. What matters for now is understanding what decisions led to it and what principles guided these decisions. As is suggested in Table 5.1, the guiding principle was implementing interdisciplinary project-based learning. The reasons for this were (a) the skills that this method fosters and (b) that it allows to bring several teachers together (who would spend more weekly time with the students than what regular high school teachers do). The specifics of teaching and learning each subject did not matter as much as the pedagogical method. In fact, no subject specialists were involved in the design of the innovation and the three integrated areas for project work were those at HTH.

In this context of changes, a managerial disagreement with the IB –unrelated to the curriculum reshaping– led the school administration to decide to discontinue the two other IB programs still in place. None of the campuses would continue with the PYP, and Las Condes would continue with the IBDP until May 2018 (when the students who began the program in May 2016 took their final examinations). All of a sudden, the plan of innovating solely in the middle years expanded to designing a new curriculum for the whole PK to 12<sup>th</sup> grade sequence.

Reactions to this larger change varied, but the predominant sentiment at Las Condes in early 2018 was “a strong sense of widowhood” (Administrator). Some teachers understood the decision and, alluding to the IB’s worldwide expansion since 2010, reflected that “as the IB became massive ... it became more prescriptive ... [and it felt] like a club in which you pay your membership and, if you don’t pay on time, they get angry.” Another teacher thought that, “They can take away the IBDP, but I’m already trained as an IBPD teacher.” According to an administrator, several parents complained. However, the school’s decision did not change.

The 10-12 grade curriculum that slowly replaced the IBDP after this full pullout from the IB was designed at Las Condes during 2016, in parallel with the above-mentioned design for grades 7-9 at Peñalolén. The core design principles here were three:

- offering discipline-based courses that prepare for college-entrance examinations,
- offering choice (i.e., electives), and
- promoting active learning aligned with what was being promoted in the lower grades.

This last principle led to adopting *problem-based learning* as core pedagogy for these grades. Slightly different from *project-based learning* –which is usually interdisciplinary, collaborative, and oriented toward crafting a final product– *problem-based learning* can be used in a subject, both individually or in groups, and can end in a final paper (Lu, Bridges, & Hmelo-Silver, 2014).

The next section describes and analyzes this 10-12 grade curriculum more in detail. For now, it suffices to grasp why and how it changed; especially the abruptness of the change. Also, it helps to understand what an administrator noted: “for me, this [10-12 grade development] is not really an innovation. The true innovation is what we’re doing in grades 5-9.” Indeed, discipline-based courses and electives are the standard upper high school curriculum. The novelty in these grades was aiming to teach using problem-based learning. That is, the innovation in grades 10-12 was chiefly pedagogical, not curricular.

During 2017, Peñalolén implemented the new curriculum for grades 7-9 and Las Condes implemented the changes for 10<sup>th</sup> grade.<sup>53</sup> The complexity of these implementations was incomparable, though. Aside from the different degree of novelty of each innovation, there were considerable differences in the contexts. Peñalolén was completing the high school –with its first 12<sup>th</sup>-graders– and most of the teachers for grades 7-9 were new to the school. These teachers arrived in March 2017 to implement the innovation. When I asked one of them how many teachers in her integrated area participated in the design of the projects implemented in 2017, the answer was blunt: “Just one [out of four] ... Everyone else was new. It was very tough for us.”

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<sup>53</sup> Only for 10<sup>th</sup> grade because, differently than for grades 7-9, the changes for grades 10-12 were gradual, as the first cohort at Las Condes not taking the IBDP moved up.



The implementation process continued at full speed, however. When I conducted the fieldwork for this study in early 2018, Peñalolén was implementing the changes for 10<sup>th</sup> grade, and Las Condes was beginning to implement the new curriculum for grades 7-9 (as well as the changes for 11<sup>th</sup> grade). During these last years, teachers and administrators have continually assessed what they are doing, both to celebrate the successes and to learn from the mistakes. The timeline in Figure 5.1 includes all the changes at both campuses up to 2018 with a focus on grades 7-12.

As noted in the prior subsection, the school's PEI from 2005 was not updated until 2017. Rightly so, this new PEI stated that “*Dunalastair* formulated its previous version [of the PEI] in 2005 and, given the changes, its revision was unavoidable” (CD, 2017a, para. 2). To my surprise, though, the differences between the two PEIs were few. The new version included new student and teacher profiles. However, as a student astutely pointed out, “the *Dunalastair* student profile is just like the IB profile, but now it has another name because we are not IB anymore.” Also, despite the school's changes, both PEIs stated the same curricular priorities.<sup>54</sup>

The inconsistency of stating the unavoidability of revising the PEI after the last changes and, at the same time, issuing a new PEI that is fairly similar to that from 2005 says something important about the school's whole curriculum at present. At least, this inconsistency indicates that the school's new *comprehensive framework of aims and contents for schooling* has not yet been sufficiently spelled out. According to an administrator, “in this maelstrom [of changes], we haven't had time to write down [what has been done].” Beyond a lack of time for writing, however, the inconsistency points to insufficient reflection about what has been done; “We have little conceptualization of what we are intuitively doing” (Administrator).

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<sup>54</sup> As said in Footnote 48, these priorities were termed *objectives* in spite of not being stated as such.

One of the issues not sufficiently reflected upon is the extent to which recent changes are continuous or discontinuous with the IB (i.e., the curriculum reshaping before 2015). For instance, the data showed that only five of the six curricular priorities stated in the PEI continue to be priorities in practice: (a) *academic excellence*, (b) *bilingualism*, (c) *use of technology*, (d) *a fairness-centered values education*, and (e) *sports practice* (the implicit sixth curricular priority in 2005). In particular, being an elite school forces to prioritize academic excellence. An administrator remarked,

This is project-based learning, but with good results. If not, we couldn't do it. Not here [with the elite]. We would be a more radical option, like Montessori or Waldorf ... This is innovation improving or at least maintaining results in standardized tests.

Accordingly, after pulling out from the IB, *Dunalastair* has continued to prepare for international examinations, now with *Cambridge Assessment* ([www.cambridgeinternational.org](http://www.cambridgeinternational.org)). The other curricular priority stated in the PEI –namely, *development of the arts*– does not seem to be a priority at present. The next section offers evidence for this finding.

My analyses of the data also showed that the latest innovations brought forth new curricular priorities that the school had not yet stated as such. Three that stood out were (f) *teaching 21<sup>st</sup> century skills*; (g) *science, technology, engineering, and math* (STEM); and (h) *fostering autonomy and personalization*. Regarding the former, the school's website said, “a central part of our curriculum is its growing emphasis on 21<sup>st</sup> century skills, that is: collaborative learning, critical thinking, communication and creativity” ([www.dunalastair.cl](http://www.dunalastair.cl)). The next section expands on the centrality of STEM. About the latter, a systematization of the 2016 experience with grades 5-6 at Peñalolén stated, “the specific objective [of the innovation] was to have ... a model that empowers the students and allows them greater autonomy ... so the teacher has time to ... guide each student ... in his [or her] competency development” (Peirano, 2017, para. 29).

These eight priorities –the five that have carried over from 2005 and the three brought forth by the latest innovations– suggest that *Dunalastair*’s curriculum reshaping was remarkably complex, and was characterized by both major continuities and substantial discontinuities. The school changed its innovation trajectory in 2015 due to a concern for the whole curriculum in the middle years, an interest in teaching 21<sup>st</sup> century skills, and a full withdrawal from the IB. A fine-grained reflection on what aspects of this change have provided continuity or led to discontinuity with the prior commitment to the IB’s humanistic and cosmopolitan ideals is pending. The last section of the chapter returns to this issue.

### **Current 7-12 Grade Curriculum: A Two-Level Continuum**

When asked to graph or draw the school’s current 7-12 grade curriculum,<sup>55</sup> most interviewees distinguished two broad levels and three elements of the curriculum that vary across these levels. The two levels were grades 7-9 and grades 10-12, termed *D-Project* and *D-Thinking*, respectively. The *D* comes from *Dunalastair*, and *Project* or *Thinking* refer to the core pedagogical method used in each level (i.e., *project-* and *problem-based learning*).<sup>56</sup> The three elements of the curriculum were (a) knowledge, (b) skills, and (c) values education or character formation (i.e., the attitudinal aspect of education). One administrator elaborated that

In *D-Project*, the knowledge [that we want students to learn] is essentially what is learned in the interdisciplinary projects ... Of all the skills that are typically listed, I believe that the skill most strongly developed ... is collaboration ... This is different from *D-Thinking*, where they [the students] are more focused on the disciplines ... and the most relevant skill is ... reflection ... Character formation is always difficult to integrate.

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<sup>55</sup> See the beginning of the interview protocol in Appendix F.

<sup>56</sup> Initially, *D-Thinking* was termed *D-Problem*. However, the designers soon realized that people would joke with this name whenever a problem came up, so they changed it. *Thinking* is because –allegedly– the core skill developed with problem-based learning is critical thinking.

This second section of the chapter unearths the knowledge, the skills, and the values education emphasized in each level, giving a full picture of *Dunalastair*'s 7-12 grade curriculum. This depiction of the school's curriculum is central for understanding the high school model developed at *Dunalastair*. The section has four subsections. First, I present and analyze the school's study plans, which give a first idea of what knowledge is most emphasized at *Dunalastair*. Second, I describe specific features of *D-Project* and *D-Thinking* that help to deepen the understanding of what knowledge and skills are emphasized in each level. Third, I show subtle yet significant curriculum changes due to the pedagogical innovations. Lastly, I present what the data indicated about values education in the school, which –as said by the administrator quoted in the preceding paragraph– “is always difficult to integrate.”

**Emphases of the study plans: Natural sciences and physical education.** The study plans of a Chilean school stipulate the number of class periods allotted to each subject for the teaching of the corresponding study programs. In Table 5.2, I present a comparison between the study plans at *Dunalastair* and the Ministry of Education's (MINEDUC's) optional plans in Table 1.1.<sup>57</sup> The columns on the right –with the averages throughout grades 7-12– give a first idea of what knowledge is most emphasized at *Dunalastair* in general.

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<sup>57</sup> *Dunalastair*'s study plans in Table 5.2 are my reconstruction of the number of class periods allotted to each subject in practice (not in the documents). For grades 7-9, Table 5.3 supplements what is in Table 5.2 by showing how the time allotted to the subjects in the curriculum core combines in the integrated areas for interdisciplinary project-based learning.

Table 5.2

*Number of 45-minute weekly periods allotted to each subject at Dunalastair (D) compared with MINEDUC's national plans*

Subject	7 <sup>th</sup> and 8 <sup>th</sup> grades			9 <sup>th</sup> and 10 <sup>th</sup> grades					11 <sup>th</sup> and 12 <sup>th</sup> grades (college-bound)					Average 7-12 periods at D	Average 7-12 Diff
	MINEDUC	D		MINEDUC	D 9 <sup>th</sup>		D 10 <sup>th</sup>		MINEDUC	D 11 <sup>th</sup>		D 12 <sup>th</sup>			
	Periods	Periods	Diff	Periods	Periods	Diff	Periods	Diff	Periods	Periods	Diff	Periods	Diff		
Mathematics	6	6	0	7	6	-1	6	-1	3	6	+3	6/8*	+4	6.17	+0.83
Language and literature	6	5	-1	6	5	-1	6	0	3	5	+2	5/8*	+3.5	5.42	+0.42
Natural sciences	4	8	+4	6	10	+4	8	+2	4	4	0	4/7*	+1.5	7.25	+2.58
History, geography, and social sciences	4	5	+1	4	5	+1	4	0	4	4	0	4/6*	+1	4.67	+0.67
Foreign language: English	3	5	+2	4	5	+1	5	+1	3	5	+2	7/4*	+2.5	5.08	+1.75
Curriculum core	23	29	+6	27	31	+4	29	+2	17	24	+7	29.5	+12.5	28.58	+6.25
Art and/or music	3	4	+1	2	2	0	0	-2	2	0	-2	0	-2	1.67	-0.67
Religious education	2	2	0	2	2	0	0	-2	2	0	-2	0	-2	1	-1
Physical education and health	2	6	+4	2	4	+2	4	+2	2	4	+2	4	+2	4.67	+2.67
Technology	1	2	+1	2	2	0	2/0*	-1	-	-	-	-	-	1.17	+0.17
Counseling or <i>curso</i> council	1	1	0	1	1	0	1	0	1	3	+2	3	+2	1.67	+0.67
Philosophy and psychology	-	-	-	0	-	-	0/2*	+1	3	3	0	3/0*	-1.5	0.92	-0.08
Curriculum periphery	9	15	+6	9	11	+2	7	-2	10	10	0	8.5	-1.5	11.08	+1.75
Elective offerings	-	-	-	-	-	-	3	+3	-	-	-	-	-	0.5	+0.5
Track-related specialized courses	-	-	-	-	-	-	3	+3	9	8	-1	8/4*	-3	2.83	-0.16
Class periods of free disposal	6	0	-6	6	0	-6	0	-6	6	0	-6	0	-6	0	-6
Differentiated plan	6	0	-6	6	0	-6	6	0	15	8	-7	6	-9	3.33	-5.67
Total of weekly periods	38	44	+6	42	42	0	42	0	42	42	0	44	+2	43	+2.33

Source: My analysis of the school schedule, other documents listed in Appendix E, and conversations with school administrators.

(\*) The number of weekly periods shifts halfway through the year (from the first to the second number). Calculations assume the average.

The averages for grades 7-12 indicate that, at large, *Dunalastair* augments the time spent on the curriculum core at the cost of offering less choice –that is, fewer electives and fewer track-related specialized courses in the upper high school.<sup>58</sup> In other words, *Dunalastair* uses most of the class periods of free disposal for allotting more time to the core subjects. The MINEDUC proposed to spend 55% of the weekly schedule in the curriculum core, and *Dunalastair* spends 66%. Conversely, the MINEDUC proposed that electives and track-related specialized courses make up 22% of the school week, and at *Dunalastair* these courses make up 8% of the week. The subject in the curriculum core on which *Dunalastair* allots more class periods of free disposal is natural sciences, which is the subject that has the largest time allotment in the study plans: an average of 7.25 class periods per week throughout grades 7-12.

The total time allotted to the curriculum periphery –i.e., the mandatory courses not tested at a national level– is slightly more than what the MINEDUC proposed. This is chiefly due to the significant time allotted to physical education; more than double than what the MINEDUC mandated. Indeed, students at *Dunalastair* spend the same time in physical education as in history and social sciences. This large time allotment to physical education is tempered by less time for the arts and religious education than what the MINEDUC proposed.

Grades 7-9 more or less emulate the general trends mentioned above, except that 7<sup>th</sup> and 8<sup>th</sup> grades have an extended school week, and grades 7-9 include the mandated times for the arts and religious education (which disappear from 10<sup>th</sup> grade on). The former is because grades 7-8 have overtime once a week for obligatory sports practice. Since *D-Project* combines six subjects into the three integrated areas for project work, some important aspects of the knowledge that is

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<sup>58</sup> The five subjects in the curriculum core are those tested at a national level. The curriculum literature usually refers to them as *high-status subjects* (White, J.L., 2011).

most emphasized from 7<sup>th</sup> to 9<sup>th</sup> grade are not observable through the mere analysis of the study plans. The next subsections touch upon this point.

Grades 10-12 present wider variation than grades 7-9 on the school time allotments. An aspect common to these grades, however, is that the arts and religious education disappear from the obligatory curriculum. Thus, the curriculum periphery has less time than what the MINEDUC proposed despite the augmented time for physical education. Tenth grade is the only grade in which the class periods of free disposal are actually used for electives. In grades 11-12, the periods of free disposal are mostly spent on more mathematics and language, which is aligned with these years' orientation to preparing for college-entrance examinations.

Although the time allotments in Table 5.2 give a first idea of what knowledge is most emphasized, the recent innovations combine these allotments in ways that demand more analysis to really understand what knowledge is emphasized and how. This is especially true for grades 7-9, where subjects are combined to build the three *D-Project* integrated areas.

***D-Project and D-Thinking: Specifics of each level of the continuum.*** The three *D-Project* integrated areas taught collaboratively by two teachers each are (a) *humanities*, (b) *math and engineering*, and (c) *biosciences*. These areas combine six subjects: the five subjects in the curriculum core (i.e., mathematics, language and literature, natural sciences, history and social sciences, and English) plus technology. Combining these subjects means two things. First, the time for the integrated areas comes from combining the time allotted to the respective subjects. Second, the learning goals of the integrated areas must contain the learning goals mandated by the MINEDUC for the corresponding subjects. Each integrated area includes some time for *discipline-based lectures* in which teachers address what cannot be taught directly through projects. Table 5.3 shows how the time allotted to these six subjects (in Table 5.2) combines in the integrated areas.

Table 5.3

*Number of 45-minute periods per week allotted to each D-Project integrated area*

Integrated area	Subject in the national curriculum framework	Periods for project work	Periods for discipline-based lectures	Total (in Table 5.2)
Humanities	Language and literature	3	2	5
	History and social sciences	3	2	5
	Humanities total	6	4	10
Math and engineering	Mathematics	3	3	6
	Natural sciences (physics)	1	1	2
	Technology	2	0	2
	Math and engineering total	6	4	10
Biosciences	Natural sciences (biology)	2	2	4
	Natural sciences (chemistry)	2	0/2*	2/4*
	Foreign language: English	2	3	5
	Biosciences total	6	5/7*	11/13*
Total of weekly class periods		18	13/15*	31/33*

(\*) No chemistry lectures in grades 7-8, only two weekly periods in 9<sup>th</sup> grade.

Each integrated area has two three-period time blocks for project work per week, which means 18 weekly class periods directly on project work (roughly 40% of the week). Sharing the 2017 experience, a humanities teacher recalled,

I really liked how an 8<sup>th</sup> grade project turned out ... The central topics were the European expansion and the conquest of the Americas ... Students had to write a travel log as if it was written by ... a person who participated in those processes ... They had to put themselves in the shoes of that person ... and interesting things came out.

Students work on five yearly projects like this one per area, i.e., a total of 15 projects per year.

These projects and the discipline-based lectures are the same across the three campuses. They are designed by the teachers themselves, without external help. Concretely, for 2018, each campus appointed two teachers per integrated area as designers. Each of these pairs of teachers planned the five projects and the lectures for one grade level, making sure that the yearly plan covered all the learning goals mandated for the subjects in the respective area. The basic time unit



for this design was a week, i.e., each yearly plan contained weekly project steps and discipline-based lectures. The school's digital platform allowed to share these plans across the campuses.

The final grade in the subjects that are combined in the integrated areas is constructed by weighing 60% and 40% the grades in the projects and the lectures, respectively. For instance, 60% of the math grade is the grade in the math and engineering projects, and the other 40% is the grade in the math lectures. Project work is graded with rubrics specific to each project.

Teachers almost unanimously pointed out that the most compelling aspect of using project-based learning was the novelty of introducing the development of collaboration skills into the curriculum. One of these teachers reflected,

Years ago, group work was bringing people together and giving them a task. What happened frequently was that, in a group of three, two worked and one watched. How different from teamwork in which everyone has a role! In this difference, there are notable advances in our understanding of how issues such as collaboration –which weren't a part of formal education– should be included in the curriculum. All the soft skills that we used to acquire out of school with friends in the park now are taught intentionally in school. Students' perspective was the same: *D-Project* “has taught us to teamwork. We don't fight so much anymore. Before, who would do this or that was something chaotic. Now, we know how to work together.” In this sense, “one of the great lessons that one takes from school is how ... to socialize ... and our students are being well prepared in this aspect” (Teacher).

My own experience of observing students doing project work was of amazement at the skills developed through project-based learning. For instance, after witnessing a group of 8<sup>th</sup>-graders organize themselves for a project, I noted, “They had to prepare a Gantt chart [a bar chart illustrating the project's schedule] ... They were a bit confused with the task. However, it was fascinating to watch 8<sup>th</sup>-graders learn how to do a Gantt chart!” The point here is to highlight that

project-based learning introduces into the curriculum skills rarely taught by schools deliberately. Aside from collaboration, I gathered evidence that communication and creativity were important developments of project work.

Differently from the 7-9 grade *D-Project*, which has a strong interdisciplinary emphasis, the 10-12 grade *D-Thinking* is centered on the disciplines, particularly math and language, the two most important areas for Chile's college-entrance examinations. Also, this level involves a continuum of choice, from little choice in 10<sup>th</sup> grade to more choice in grades 11-12.

- Tenth grade has six weekly class periods for two electives (of three weekly class periods each). One elective –the *minor*– is annual and explores four problems from the same knowledge area. The other elective –the *bimonthly*– lasts for two months and explores one problem. Students pick four bimonthlies during the year. These electives are intended to help students to explore areas of knowledge before they choose their upper high school track. The rest of 10<sup>th</sup> grade (i.e., 86% of the school week) is relatively standard.
- In 11<sup>th</sup> grade, students choose a specialization track or *major*. The four alternatives are: (a) *math and engineering*, (b) *biosciences*, (c) *humanities and social sciences*, and (d) *visual art*. Students take most of their classes with the other students in the same major, although the difference between the majors –in weekly time allotments– is only of eight weekly periods (e.g., all majors have six periods of mathematics per week, except math and engineering that has eight). Aside from the major, 11<sup>th</sup>-graders have four weekly class periods of physical education, three weekly class periods of counseling or *curso council*, and three weekly class periods of *global perspectives* (a *Cambridge Assessment* course that replaces philosophy).
- From mid-May until the end of the school year, 12<sup>th</sup>-graders shift from the majors to direct training for college-entrance exams (which takes 65% of the school week).

The core pedagogical method adopted by *Dunalastair* in this level is *problem-based learning* (as said before, not to be confused with *project-based learning*). A student described,

The problem is posed by oneself or by the teacher, but one investigates it ... and the teacher's role is to guide you in this inquiry ... A question that I worked on last year [2017], for instance, was whether democracy should prohibit authoritarianism ... Should a democracy forbid that some party nominates people like Hitler?

However, several students and teachers made comments such as “not everything has to be taught through problems [i.e., problem-based learning].” These comments led me to ask and observe more carefully, from which I learned that problem-based learning was almost solely used in the 10<sup>th</sup> grade minors and bimonthlies. As a teacher noted, “the energy is on the projects, which are the school's big leap.” This means that not only the degree of novelty in *D-Thinking* is little when compared to *D-Project* (basically, aiming to teach through problem-based learning in the subjects). Also, this novelty is mostly circumscribed to six weekly periods during 10<sup>th</sup> grade.

The school's new 7-12 grade curriculum, which I termed a *two-level continuum*, came with a major organizational change: the end of academic departments. Peñalolén never organized departments, but at Las Condes, “the other phenomenon that occurred ... in addition to the end of the IBDP ... was the end of academic departments” (Administrator). Since 2018, high school teachers at *Dunalastair* are organized by campus, level, and integrated area. That is, the 7-9 grade humanities teachers at Peñalolén are a unit, as well as the 7-9 grade math and engineering teachers at Las Condes, and so forth. The *D-Thinking* teachers at each campus constitute a single unit exclusively focused on the 10<sup>th</sup>- to 12<sup>th</sup>-graders, though. A teacher commented that “*D-Thinking* teachers are like older siblings who manage by themselves ... because administrators are focused on the projects [i.e., grades 7-9].” Teachers in the disciplines not included in the innovations (e.g., physical education or art) remain organized by departments on the side.

When I visited the school in early 2018, teachers at Las Condes were beginning to grapple with the new configuration. This organizational change matched the findings of the *Eight-Year Study*, which indicated that whole curriculum reshaping entailed both specifically educational challenges and administrative ones such the organization of teachers (Kridel & Bullough, 2007; PEA, 1943). Back then, Giles et al. (1942) concluded that “there is no problem of organization ... that does not have a significance in the curriculum” (p. 293).

### **Subtle but significant curriculum changes due to the pedagogical innovations.**

Several administrators believed that the new pedagogical methods introduced the development of 21<sup>st</sup> century skills without a change in the contents taught. One of them explained that

The philosophy behind [the shift toward project-based learning] was the following: if ... the time allotments that we had [before] were enough to cover the mandated learning goals ... changing how these times were used [by combining them] was not touching what we did before. The new challenge was to teach the same *contents* ... in a new, aggregated format [the integrated areas]. The only obstacle that we added was the *form*.

This viewpoint assumed that *contents* could be taught using any pedagogy [i.e., any *form*], so the pedagogical innovations introduced the development of new skills (e.g., collaboration) without modifying the contents. The actual experiences of participants revealed something different, though. This subsection shows that the pedagogical innovations have entailed important changes in *what* is taught, i.e., the curriculum.

Table 5.4 summarizes the key trends that I found in the data regarding what was taught or learned in each subject after the latest pedagogical changes. These findings help to understand more deeply (than what was possible through the analysis of the study plans) what knowledge and skills are most emphasized at *Dunalastair* now. Underlying these trends is a noticeable movement toward emphasizing the scientific way of thinking over other ways of knowing.

Table 5.4

*Trends in what is taught and learned in (or about) each subject at Dunalastair*

	Subject	Key trend	Quote(s) from interviews
Curriculum core	Mathematics	Moving toward applied mathematics at the cost of overlooking the subject's more abstract contents and other skills that are not developed through project-based learning.	"Mathematics has a lot of very abstract concepts that are difficult to translate into projects. I said it when we introduced the project method ... Mathematics can be a tool sometimes ... When a bridge is built, nobody is doing algebraic demonstrations. Yet, you have to go through these demonstrations to be able to build the bridge, and students do not get this ... from the projects" (Teacher).
	Language and literature	Shifting from an emphasis on both literature analysis and the development of effective communication skills (i.e., reading comprehension, oral and written expression, etc.) towards chiefly the latter.	"My big problem ... is how much the students are going to continue reading and how much they are going to continue writing. Because they look at Internet sources, but the reading and the writing of longer texts are lost" (Teacher). "If you ask me, 'Would you like to do more literature analysis or creative writing?' Yes, I'd like to. However, is that the school's goal? ... I don't know ... At the end of the day, it depends on what we want" (Teacher).
	Natural sciences	Emphasizing an experimental and collaborative idea of scientific inquiry that is becoming the core of the curriculum, i.e., both the subject with more time allotment and the predominant way of thinking.	"Yes, we decided to emphasize natural sciences ... which is why it has more time allotted in the curriculum" (Administrator). "In <i>D-Project</i> , teachers are giving more emphasis to reflection and collaborative work, which are key in science ... In the past, the idea of the scientist was that of the mad scientist in his laboratory. Now it is that of a group of scientists arguing" (Teacher).
	History, geography, and social sciences	Becoming the core content knowledge in the integrated area of humanities.	"In humanities, the content, so to speak ... comes from history. That is, in terms of contents, the projects [in humanities] are super focused on history. Language offers support on communication skills; that's it. That's the idea" (Teacher).
	Foreign language: English	Figuring out the place of the subject in the new curriculum, although there is the impression that –as with language and literature– it will be chiefly about the development of communication skills.	English teachers at Las Condes "feel that English dies because ... in three hours [per week] they want to do the same that they did before ... [when] they were implementing the IB curriculum ... If their standard is the same as before, it obviously does not work because that is not what we are doing" (Administrator).

Curriculum periphery	Art or music	Becoming a high quality elective from 10 <sup>th</sup> grade on (i.e., a niche for the few students interested in it).	<p>“I feel that [visual arts] has a niche here ... a space that is respected and valued, regardless of how many students choose this area. Just think that, right now, I have seven students in the [10<sup>th</sup> grade] art minor [out of 90] ... The school could say: ‘seven students are too few, it’s not worth it’ ... But the school has sustained this area ... Not like parents ... they are something else. When it comes to choosing electives, they push their children to take courses that will lead the children to professional tracks. Choices related to management are saturated” (Teacher).</p> <p>“Art is an elective [from 10<sup>th</sup> grade on] ... and one wants it, but it’s not a need, like the other subjects ... They took away this option that we had before, although it was not an option; we had to take it. Now, it is really optional, and one prioritizes other things” (Student).</p>
	Religious education	Approaching the subject (in grades 7-9) from a historical-cultural perspective rather than a perspective that fosters spiritual conversations.	“Since the school is non-confessional, we do not address so much religion as such ... The school tries not to take a stance on this matter, and comparative religions is like history ... I feel that the school avoids tackling it” (Student).
	Physical education and health	Maintaining its high status at <i>Dun alastair</i> despite –and in parallel with– the innovations.	<p>“We are not included in the projects; nothing” (Teacher).</p> <p>“Before <i>D-Project</i> and <i>D-Thinking</i> existed ... sports were already a fundamental base ... I think that sports help to regulate students’ discipline ... the social community that is generated in sports ... This is when the whole cohort comes together” (Teacher).</p>
	Technology	Being wholly absorbed by mathematics and physics in the integrated area of math and engineering.	The learning goals of “technology [the subject] fell by drip [into the math and engineering projects] because they are a little broader ... These [technology] skills are more transversal” (Teacher).
	Philosophy and psychology	Shifting from being the heart of the 10-12 grade curriculum (as <i>theory of knowledge</i> with the IBDP) toward being just another subject in the curriculum periphery.	“I stopped teaching <i>theory of knowledge</i> from the perspective of the IB, and now I teach <i>global perspectives</i> , which is different ... In global perspectives, I choose the topics. The perspective is much more flexible” (Teacher).

Source: My analysis of the interview data.

The trend most mentioned by the teachers was that the new pedagogies tend to align with the sciences (natural or social). That is, that –where adopted– project- and problem-based learning tended to introduce the scientific, inductive way of thinking. In particular, this alignment was perceived by the math, language and literature (i.e., Spanish), and English teachers in *D-Project*. They perceived that their subjects became instrumental to the scientific inquiries in the respective integrated areas.

What occurred with English in *D-Project* is telling of this emphasis on the sciences. To build the integrated area of biosciences, six or eight weekly periods of natural sciences –in grades 7-8 or 9, respectively– were combined with the five weekly periods of English (see Table 5.3). The area’s projects are entirely focused on biology and chemistry, though. In truth,

English entered [project work] ... because we needed its time allotment ... The other decision could have been only to have one [weekly] time block of project work [in biosciences]. However, this was not enough to generate the impact that we wanted in the sciences ... That’s why we combined English in biosciences. (Administrator)

There are still three weekly class periods for English lectures and some teachers have introduced English vocabulary in the projects of biosciences. Nonetheless, the innovation entailed putting the study of English at the service of scientific inquiries.

Beyond the use of the time allotted to English for project work, the perception of language teachers was that the innovations entailed a shift in the focus of both Spanish and English. Before the change, these subjects had two broad goals: (a) developing communication skills and (b) introducing students to the culture (and the literature) associated with these languages. With the change, both subjects focused mainly on the first goal. A *D-Project* teacher noted that “at the end of the day, projects in humanities are for learning history and developing communication skills.” Some of the teachers did not have a problem with this shift. Others worried because they

observed that current students had less interest in reading books than in the past, and innovations meant “reduc[ing] the [mandated] readings. Before, from 9<sup>th</sup> grade on, students had to read one book per month [i.e., eight total]. Last year [2017] ... we had to reduce it to six books” (Teacher).

The ideas of math teachers about the effects of the innovations on their subject also were mixed. On the one hand, there was an appreciation for the increase in student motivation due to the movement towards more applied math. A teacher shared that, “I believe that now all students have a good time ... Before, some enjoyed the subject and others didn’t. Now, I perceive that the whole group is engaged.” On the other hand, there was a concern that the learning goals not included in project work (i.e., addressed during the three 45-minute lectures per week) were too many. Grappling with this situation, a teacher shared that “first [when *D-Project* began], we asked students to investigate in the corresponding topic, which is the second phase of the project method. Later, we eliminated this investigation because in math it didn’t make sense.”

These perceptions align with Mehta and Fine’s (2019) results. They found that “virtually all of the ... project-based schools that [they] observed, chronically struggle[d] when it c[a]me to integrating math into their model” (p. 85). The *workshop learning mode* that characterizes project-based learning is motivating and generates learning that lasts. However, it is not the best way to master foundational bodies of skills and knowledge, such as those of math or music.

Some of the aforesaid trends –such as emphasizing scientific inquiry– were intentional. Nonetheless, others seemed to be a result of implementing the new pedagogies without enough consideration of the relationship between each area of knowledge and the best method(s) to study it. A math teacher thought that “a big problem here is that everyone thinks that math and physics go together, so where there is math there is physics and vice versa.” This point relates to not giving sufficient attention to the *structure of the disciplines* (Schwab, 1962), which is at the basis of Shulman’s (1986, 1987) idea of *pedagogical content knowledge*.



All teachers valued the skills developed with the new methods. One of them said that, the school was training “student[s] who know how to teamwork and respect others ... [which is key because], at the end of the day, soft skills matter a lot when they go out to the world.” Also,

We began to work something that is generally difficult, which is creativity ... The projects ... allow for interesting things to come up, which is something that we typically limit since they are in elementary school ... I believe that the projects allow them to re-discover creativity. (Teacher)

In this way, most teachers prized how the new pedagogies were a means to develop skills previously assumed as a given, seldom taught deliberately in a formal way.

However, teachers also thought that forcing most learning goals into project-based learning created difficulties in some subjects. As a teacher insightfully reflected,

Forcing all the learning goals to come together [in some projects] is very difficult ...

Sometimes one forces a connection that doesn't exist ... Instead, we should look at the learning goals, identify which ones really connect with each other, and with these goals in mind work on three or four projects [instead of 15] during the year.

This teacher's point was that interdisciplinary projects were great for attaining some learning goals, but making project-based learning “the method” to teach all the core subjects in grades 7-9 created problems. This pedagogy-driven innovation had consequences on *what* was taught, most noticeable in math and both languages.

Another subtle but significant change in the curriculum occurred with philosophy. This change did not relate to the pedagogical innovations, but it was a consequence of the broad transformations of the last years. With the IBDP (i.e., at Las Condes in the early 2000s), *Dunalastair* replaced the MINEDUC's philosophy course for a course on *theory of knowledge*.

This course not only had different contents, though; it was designed to provide coherence to the

whole 10-12 grade curriculum by exploring the nature of knowledge across disciplines. With the pullout from the IB, the school replaced theory of knowledge with *global perspectives*. This new *Cambridge Assessment* course allows to explore exciting topics such as the history of the Internet, but it does not aim at integrating the whole curriculum as theory of knowledge did. This philosophical integration of the whole curriculum was lost.

This subsection showed that *Dunalastair*'s implementation of project- and problem-based learning entailed subtle but significant changes in *what* is taught. The new pedagogies introduced the development of 21<sup>st</sup> century skills but also an emphasis on the functional dimensions of language and the scientific way of thinking over other ways of knowing. Also, the withdrawal from the IB meant losing the philosophical integration of the 10-12 grade curriculum. In the final section, I submit that these changes –as well as the end of academic departments– relate to the “fully-constructivist view” that underlies the innovations.

**The attitudinal element of the curriculum: Fairness within an elite bubble.** The last element of *Dunalastair*'s whole curriculum –aside from knowledge and skills– is values education, which most interviewees summarized as an *effort to instill fairness in daily coexistence*. The reference to daily coexistence is because the school's approach to instilling fairness rests mostly upon the idea that *values are caught, not taught* (Jackson et al., 1993). Thus, daily relationships and experiences are the most critical places for values education.

*Dunalastair*'s Discipline Code embodies this effort to instill fairness in daily coexistence. Instead of proposing a long list of rules to regulate the school's daily life, the Code states: “rules ... are necessary for a civilized coexistence with others ... Ideally, they should be very few, and at *Dunalastair* we propose to reduce them to three simple ideas: *be safe*; *be responsible*; and *be respectful*” (CD, 2017b, p. 6). Given the importance of sports at the school, the Code also highlights that “all students are expected to observe these rules and *fair play* in sports. These

rules include respect for referees, peers, rivals, spectators, and a general attitude of loyalty, honesty and politeness” (p. 13).

When interviewees described daily coexistence at *Dunalastair*, they generally described it as warm and respectful. I was impressed by the fact that almost all students and teachers talked about the absence of bullying in the school without any inquiry about this matter from me. A student commented that, “If there is something remarkable of this school is the anti-bullying.” A teacher also noted that, “The cases of bullying are so few that I can count them on the fingers of one hand. The last two years we haven’t had any.”

*Dunalastair* does not have counselors or an office of student affairs where students can go for help on psychological issues and the like. Some years ago, the school opted for “remov[ing] the psychologists because the understanding of their role was not the same among all those who were in charge of them ... and there were distortions” (Administrator). Since then, student guidance and support rest largely upon *profesores jefe* and their work with their *curros*. All *profesores jefe* at *Dunalastair* have six weekly class periods allotted for this work, which include the class period(s) of counseling or *curso* council and time for parent-teacher conferences.

The centrality of each *curso*’s life for student guidance and support, as well as for values education, determined that in 2015 the school implemented a *Personal and Social Development Program* (PDPS for its Spanish initials) (Halcartegaray & Banz, 2015). The program has classroom activities for the class period of counseling or *curso* council that ensure “certain things for all children, regardless of what the *profesor jefe* wants to do [during this period]” (Administrator). The PDPS is structured to address three dimensions: (a) students’ relationship with their emotions (and how to express them assertively), (b) students’ relationships with others (i.e., considering other people’s perspectives), and (c) community life (i.e., a constructive participation in communal contexts, such as the *curso* or the school).

The concrete implementation of the PDPS is distant from the theory, however. In a meeting of *profesores jefe* from grades 7-9 that I observed, they repeatedly pointed out that students got bored with the activities proposed in the PDPS, so the program needed a revision. A *profesor jefe* who was not in the meeting added that “years ago I would have told you that [the PDPS] worked. Now, I agree that it needs an update ... It bores the students ... Before each activity, I have to convince them that it is important to do it.” An administrator confessed that “we have this PDPS program but ... I’ve always felt that this type of programs are add-ons.”

On top of what has been described, *Dunalastair* has a yearly experience for each 8-12 grade. The experiences for 9<sup>th</sup> and 11<sup>th</sup> grades are especially relevant for values education because they are citizenship education milestones. In 9<sup>th</sup> grade, the whole cohort simulates a UN Assembly with teams of students representing different countries. In 11<sup>th</sup> grade, students spend a morning on role-playing games designed to foster reflection on the value of fairness.

Something that many interviewees highlighted, nevertheless, was that *Dunalastair*’s effort to instill fairness rarely went beyond the school gates. The image of *Dunalastair* as a bubble or gated community came up in several interviews. One administrator said,

I feel that we –as a school– have important citizenship education milestones, but we have not yet been able to make our students commit to social action. We are too closed ... We teach critical citizenship skills ... but this does not go beyond the walls of the school. A student who was representative of the other students in the focus groups expressed that “in general, there is that bubble of being a private school.”

Table 5.5 summarizes the central features of the whole curriculum that emerges from bringing together all that I have presented in this second section of the chapter. This synthesis, as well as the timeline of *Dunalastair*’s process of curriculum reshaping in Figure 5.1 are key to my conceptualization of the school’s model, which follows.

Table 5.5

*Central features of Dunalastair's whole curriculum for grades 7-12*

	<i>D-Project</i>			<i>D-Thinking</i>		
Grade	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Subject(s) with most time allotted	Natural sciences			Mathematics and language		
Core pedagogical method	Project-based learning (in three integrated areas)			Problem-based learning (mostly in 10 <sup>th</sup> grade electives)		
Central skill(s) developed	Collaboration, communication, and creativity			Critical thinking		
Central knowledge taught/learned	Scientific (natural and social-historical)			Specialized, dependent upon students' upper high school track		
Values education	An effort to instill fairness in daily coexistence (in sports, the daily life of the <i>cursos</i> , etc., but rarely beyond the school gates)					
Yearly milestone	-	Week-long experience of outdoor research in Southern Chile	Day-long simulation of a UN Assembly	10-day cohort trip (within Chile)	Morning of role-playing games on the value of fairness	Year-long preparation of a cohort musical (in English)

Source: My elaboration based on the data analysis.

The first section of the chapter ended by stating that *Dunalastair* has not yet sufficiently spelled out the whole curriculum outlined in Table 5.5. After noting that the school's 2017 PEI was very similar to the 2005 PEI despite the changes since 2015, I asserted that there has not yet been sufficient reflection (and conceptualization) of what has been done. For instance, I contended that *development of the arts* is not really a curricular priority, despite being stated as such in the latest PEI. This second section pointed out other significant curriculum changes due to the pedagogical innovations. Based upon the descriptions in these two sections, the chapter now moves toward a comprehensive conceptualization of *Dunalastair's* curriculum and the school's process of curriculum reshaping.

### **A More Constructivist, Collaborative, and Scientific College-Bound High School**

The whole curriculum developed at *Dunalastair* since the school began to innovate in 2001 is not easy to conceptualize. One extreme to avoid is to focus only on what has changed

with the implementation of project-based learning in grades 7-9 since 2017. From this viewpoint, the school could be conceptualized as *progressive*, *21<sup>st</sup> century*, or perhaps *Deweyan* (Mehta & Fine, 2019). This was the core idea in most of the recent presentations of the school that I collected, as well as for most interviewees from Peñalolén, who suggested that *Dunalastair* was the “Chilean version of HTH.” Table 5.5 shows that this is not entirely true.

The opposite extreme is to look at Figure 5.1 and emphasize the continuity since 2001, as if the current curriculum was the natural evolution of what began with the implementation of the IBDP. The inconsistency pointed out in the 2017 PEI is an example of this other extreme, which was more common among interviewees from Las Condes. However, again, Table 5.5 demonstrates that this idea is not true either.

A third idea that someone could draw from Table 5.5 is that *Dunalastair*’s curriculum is a juxtaposition of a HTH-ish progressive curriculum in the lower high school and remnants of the humanist IBDP in the upper high school. This conceptualization is definitely more accurate than the two aforementioned extremes. However, it misses that (a) there are important continuities between the two levels, and (b) *D-Thinking* is distinct from the IBDP.

The continuities between *D-Project* and *D-Thinking* are several. The most evident one is pedagogical: the goal of promoting active learning through diverse methods (despite the finding that, in practice, problem-based learning is not used much beyond the 10<sup>th</sup> grade electives). Tables 5.2 and 5.5 show that the two levels also share an emphasis on the curriculum core –at the cost of offering less choice than proposed by the MINEDUC– and the goal of instilling fairness in daily coexistence, especially in sports and the daily life of the *cursos*.

*D-Thinking* shares the IBDP’s concern for a rigorous preparation for college admission, but it is different. The IBDP aims at integrating the humanities across all subjects (White, J., 2012). For this integration, it requires students to (a) take a theory of knowledge course that

explores the nature of knowledge across subjects, (b) write an end-of-high-school reflective essay, and (c) do community service. What gives unity to *D-Thinking* is different: a multiple-path rigorous preparation for college-entrance exams and aiming to promote active learning aligned with what is promoted in the lower grades. The IB's humanistic and cosmopolitan philosophy does not provide coherence to the curriculum anymore. I believe that this difference reveals an essential aspect of *Dunalastair's* current curriculum unearthed in the prior sections.

All in all, I contend that *Dunalastair's* 7-12 grade curriculum is a two-level continuum that introduces the development of 21<sup>st</sup> century skills and an emphasis on STEM into the traditional college-bound high school, without hurting a rigorous preparation for college-entrance exams. After the pullout from the IB, the humanist philosophy that used to integrate the curriculum was replaced by constructivist ideas aligned with the development of 21<sup>st</sup> century skills and the emphasis on STEM. Therefore, the core of the school's current *comprehensive framework for schooling* are ideas around active learning and the corresponding pedagogies.

The 2017 induction for new teachers exemplified well how educators were introduced into this framework. Documents indicated that the module on the philosophy of the curriculum had three contents: constructivism, *growth mindset* (Dweck, 2006), and active learning through projects. These contents were essential for implementing the changes, but where were the theory of knowledge and the visions of the person and of society grounding the innovations? (McPhail & Rata, 2016). I believe that this replacement of a broader philosophy with constructivist ideas explains why several teachers had questions about key aspects of the innovation, such as the purpose of teaching languages in *D-Project*. My impression was that, without realizing it, they were asking for (and perhaps struggling with) an undeclared curricular philosophy.

The lack of attention to the specifics of teaching and learning each subject and the end of the academic departments relate to this full adoption of constructivist ideas. Phillips (1995)

asserted that these ideas were at the root of the current concern for the learners' active participation in the learning process; however, it was essential to distinguish between diverse constructivisms frequently confused. Building upon this claim, McPhail (2016b) differentiated between *epistemological* and *psychological* –or *pedagogical*– constructivism. The former is concerned with how bodies of knowledge come to be built over time and the latter with how individuals learn. The former relates to the curriculum, while the latter is about pedagogy. McPhail theorized that confusing these constructivisms could lead to curriculum development based upon general ideas about *how* students learn without sufficient consideration of *what* they will learn. The previous section indicated that *Dunalastair* seemed to be in this situation.

The introduction of 21<sup>st</sup> century skills into the curriculum (especially collaboration), connected with ideas about the future of schooling that could be the basis of the school's implicit curricular philosophy. One administrator shared, "if education had this stronger emphasis on collaboration, it would contribute to ... the idea of *collective intelligence*." This concept refers to a universally distributed intelligence built upon networked technologies that enhances our collective pool of knowledge (Levy, 1997, 2015). Relatedly, another administrator mentioned the long-term goal of arriving at "a study plan per child –not per *curso* [or grade-level]– and that each child knows where he [or she] is, and where he [or she] is going" (in terms of the learning process). Together, these ideas point toward a future of the curriculum as fully-personalized learning within networked environments of which *D-Project* is just a startup (Williamson, 2013).

*Dunalastair*'s curricular emphasis on STEM –and the scientific way of thinking– was well demonstrated in the previous section. So was the less explicit flip side of this emphasis: the subtle downplay of other ways of thinking such as the humanities. An administrator whom I asked why the school prioritized the sciences responded bluntly, "With all what you read about STEM, are you going to play dumb about it? Are you going to continue teaching humanities? ...



This simply demonstrates what knowledge is the most valued at present.” I interpreted this response as a confirmation of the emphasis on the sciences and the associated downplay of other ways of thinking already apparent in the data (see Table 5.4 and the ensuing analyses).

This new emphasis on STEM (and the related downplay of other ways of thinking) should not be surprising, though. As mentioned in Chapter One, comparisons of national curriculum frameworks revealed three global trends: an expansion of the scientific mindset, a growing culture of cognition, and an emphasis on the universal over the local (Baker, 2014, 2015; McEneaney & Meyer, 2000). The findings for this case simply indicate that *Dunalastair* embraced these trends. Aside from the expansion of the scientific mindset, the growing culture of cognition was apparent in how constructivist ideas now provide coherence to the whole curriculum. The emphasis on the universal over the local has been central to *Dunalastair* since its foundation as a bilingual school in the British tradition.

All things considered, the high school model developed at *Dunalastair* is *more constructivist, collaborative, and scientific than the traditional Chilean college-bound high school*. One teacher reflected, “I think that we are trying to correct the deficiencies of the traditional college-bound high school with practical work that is more significant for the students.” From the perspective of the two most common high school models, this “correction of deficiencies” represents a subtle movement from the college-bound high school model toward the technical-vocational model. However, this move is not a mere juxtaposition of the two models as in a comprehensive high school where students choose a track of one or the other type.

*Dunalastair’s* innovations invite us to imagine a high school curriculum that combines the best of both worlds. The fact that the distinction between the two models is deeply associated with social status explains why maintaining a rigorous preparation for college admission is so central (Gysling, 2016; Sevilla, 2017).

Along this line, Mehta and Fine (2019) located the origin of HTH in the founder's realization that students in vocational education did not have access to academically demanding classes and college-bound students did not have opportunities for hands-on work. HTH was created to bridge these two worlds. Lately, however, HTH teachers realized that their project-based model was very successful at fostering students' creativity and collaboration skills, but not as successful at teaching all students the basic math and language skills (Mehta & Fine, 2019). Hence, HTH is exploring "more traditional approaches" to tackle this difficulty, which will make their model more eclectic. This sounds a lot like *Dunalastair's* movement from the traditional focus on *mastery* toward promoting *creativity*, but in the opposite direction (see Figure 4.2).

As mentioned at the beginning of the chapter, a key question here is how could this movement towards a more constructivist, collaborative, and scientific college-bound high school occur in an elite school such as *Dunalastair*. Most likely, I believe, it was possible because of a corresponding change in the Chilean elite. As a teacher thoughtfully reflected,

All [Chilean] colleges ... now have support programs for academic reading and writing ... Why? Of course, because higher education became massive, and many students who are the first generation in college come with this handicap ... However, another important aspect of this issue is that the elite now reads less, so to speak ... I think that the Chilean elite is not the same as 20 or 30 years ago ... Now it is more financial than cultural.

Using this teacher's words, I believe that a "more financial elite" is more open to a more technical-vocational high school than a "cultural elite" (as long as this change does not hurt its children's social status, largely dependent upon college admissions).

The Chilean elite is not homogeneous, though. As said in the chapter's introduction, elite schools can be (a) traditional Catholic, (b) traditional European, or (c) new Catholic (Madrid 2015). All these schools share a curriculum that emphasizes academic excellence and prepares

students for a globalized world, but they differ in how much they foster a sense of belonging to a cultural or religious tradition, or how much they instill a political concern for others (Madrid, 2015). Commenting on where *Dunalastair* stood within this landscape, a teacher noted that

An emphasis here is that ... we don't know what students will need in 10 years ... That's the idea behind the interdisciplinary work or the famous learning how to learn ... Of course, others think that in the face of this *liquid context*, people need something solid that anchors them. Sure, that is another bet. Here, the bet seems to be *for the liquidity*. If the future will be liquid, then resisting it will just end up in a fracture.<sup>59</sup>

In other words, *Dunalastair*'s more constructivist, collaborative, and scientific model can be perceived as an option to embrace the increasing "fluidity of the culture." This option stands in contrast with other elite schools' option to equip students with "something solid that anchors them," such as some reference or sense of belonging to a cultural or religious tradition.

Bellei et al. (2019) proposed that Chilean parents looking for an elite school for their children can be of three kinds. They can be (a) *traditional communitarian*, if they want a school for its tradition (religious or cultural); (b) *neoconservative*, if they want a school for being set apart from the rest (to "really preserve the tradition"); or (c) *modern-illustrated*, if they want a school that promotes self-determination. In line with previous remarks, most parents at *Dunalastair* are *modern-illustrated* emerging businessmen and professionals with a different cultural capital than the traditional Chilean elite. The school's model could be considered as meeting this "more financial than cultural" elite's idea of what their youth will need in the future.

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<sup>59</sup> The concepts *liquid context* or *liquidity* refer to Bauman's (2000, 2005) characterization of our present as *liquid modernity*. Bauman's theory states that –nowadays– people *flow* through their lives, changing places, jobs, spouses, values, political and sexual orientations, etc. In doing this, people free themselves from the requirements imposed by the traditional networks, but also exclude themselves from the support that these networks provide.

Connecting these sociological analyses with the adoption of constructivism as the integrating factor in the curriculum, Wheelahan (2012) posed that a key curriculum phenomenon during the last decades has been the *appropriation of constructivism by instrumentalism*. A sign of this phenomenon is the widespread reference to Dewey's (1900/1990) pedagogical ideas by advocates of 21<sup>st</sup> century skills without references to his social-political views (Beane, 1997; Williamson, 2013). Wheelahan's point was that instrumental discourses primarily concerned with the needs of the economy have selectively appropriated constructivist ideas "through the discourse of the fluid nature of individual identities and the self as a project ... [that] draws on the language of empowerment and student-centeredness" (p. 124). In this sense, *Dunalastair's* discourse that "we don't know what students will need in 10 years" entails a mix of pedagogical, philosophical, and even political ideas that appeal more to a certain type of parent than to others. I believe that more *traditional communitarian* parents would have challenged this discourse.

*Dunalastair's* latest innovations are too young for making any conclusion regarding their future. Will they get built into the school structure, or will the school return to a more traditional curricular model in some years? If the innovations endure, will they scale, or will they develop within a niche, like Montessori's ideas? (Cohen & Mehta, 2017). In any case, the prior reflections align with Tyack and Tobin's (1994) claim that changes in the *grammar of schooling* only are sustainable if they are preceded by a change in people's idea of "what sort of improved schooling could realize new aspirations" (p. 478). That is, innovations will endure only if parents and educators really believe that these changes accomplish what they want for their children.

The case shows that, beyond *Dunalastair's* particular elite context and three-campus structure, adopting a "fully-constructivist view" presents at least two dilemmas. Pedagogical methods based on constructivist ideas can increase student motivation and develop skills rarely taught by schools intentionally. This was palpable in the classes that I observed and awakened

deep emotional reactions in educators (and me as an observer). However, a curriculum built upon these methods can neglect a deeper epistemological analysis of *what* is to be learned, relativizing and trivializing the socialization aspect of education. Relatedly, a fully-constructivist approach can implicitly carry instrumental discourses that stress the empowerment of the individual at the cost of a larger and more politically dense social vision.

What has been said highlights a central truth for the *deliberative tradition* within curriculum studies: curriculum deliberations always entail a stance regarding what students should learn and be able to do (Grundy, 1987; Mehta & Fine, 2015b). In this vein, the chapter shows both the technical and the moral-political options that underlie *Dunalastair*'s curriculum reshaping, especially the recent shift from the IB programs to a new model based on project- and problem-based learning. The school aims to educate science-minded, bilingual, sport-practicing, rigorous, autonomous, respectful, fair, and collaborative people.

Finally, in Chapters One and Four I mentioned that *Dunalastair* was selected for this study for its experience in curriculum innovation, which I assumed to indicate the existence of a *culture of curriculum construction* (Pascual, 2001). Findings show that, indeed, the school has this culture, which includes instances for curriculum deliberation (such as the mid-year retreat where administrators reflected about the problems with the middle years), visits to other schools (such as HTH), and pairs of teachers designing interdisciplinary projects. Most likely because of this culture, most interviewees thought that the Chilean curriculum framework was not a problem for curriculum reshaping; “on the contrary, I think that many schools use this as an excuse for not innovating” (Administrator). In this regard, the case shows that administrators who have the resources and relate intelligently with the national curriculum guidelines can reshape the school's curriculum as infrastructure in new and creative ways.

## CHAPTER SIX

### *San Nicolás: Dilemmas of a Collected Curriculum*

This chapter presents the findings for *San Nicolás* to attain an in-depth understanding of its curricular model. The school is a public 7-12 comprehensive high school like those studied in the U.S. during the early 1980s by Goodlad (1984),Sizer (1984/2004), and Powell et al. (1985), as reviewed in Chapter Two. Most Chilean high schools are either college-bound or technical-vocational, however; only 12.5% of them are comprehensive (Sevilla & Sepúlveda, 2015).

*San Nicolás* is located in a working class, rural town of 11,603 inhabitants in the Region of Ñuble.<sup>60</sup> It is 15.4 miles away from Chillán, the regional capital, which has a population of around 220,000. The context is chiefly farms, and most families work harvesting wheat, barley, and grapes for landowners from Chillán. Statistics from 2015 indicated that 43.2% of the school parents had not finished high school and only 15.2% of them had some type of higher education (LBSN, 2015).

In this reality, *San Nicolás* teaches approximately 1,400 students –many of whom come from neighboring towns– and offers them eight upper high school tracks from which to choose: four technical-vocational and four college-bound. One teacher shared that,

What motivates me to continue here is having seen children who came to 7<sup>th</sup> grade from the middle of nowhere ... and ended up at *Universidad de Chile* or *Universidad Católica* [the two top Chilean universities] ... I get goosebumps when I think that we're taking kids from this context and we're placing them in top colleges and universities.

This contrast between the rural context and the reality at the school made an educator suggest that the school was “like an oasis in the desert.”

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<sup>60</sup> <https://resultados.censo2017.cl/>

In short, the case is how in 12 years a 400-student public high school from a marginal rural town became a 1400-student, high-achieving school that offers students from several towns an array of pathways to thrive. *San Nicolás* is a complex, rich case that combines a broad-minded idea of giving each student what he or she needs to flourish with bold realism regarding what is required to assure that students become proficient in the core learning standards. In this sense, the school is both progressive and conservative, depending on what practices one looks at.

The chapter is titled *Dilemmas of a Collected Curriculum* because –in contrast with *Dunalastair*– *San Nicolás*’ growth through a steady process of departmentalization shows the pros and cons of developing a *collected curriculum*. Bernstein (1971) coined this term for curricula in which there is little discipline boundary-crossing so schooling can be experienced as a collection of unrelated areas. At *San Nicolás*, though, this curriculum is not experienced as fragmented as Bernstein suggested. Rather, it is integrated by a culture of high expectations and support that makes students work hard in each area and feel deep affection for their school.

The history of *San Nicolás* before the 12 years that are the focus of this chapter is simple. Until 2002, the town had one public K-12 school that offered a single (college-bound) upper high school track. In 2003, the school split into two schools, with grades 9-12 becoming what is now *San Nicolás* and moving to its current location. After completing this move, the high school opened its first technical-vocational track –*industrial food processing*– becoming a small comprehensive high school. During the following years, *San Nicolás* opened two other technical tracks: *collective food services* in 2004 and *chemical plant operator* in 2005 (now termed *industrial chemistry*). These three technical tracks were built upon partnerships with regional businesses that offered internships for students in the respective trades.<sup>61</sup> When the current

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<sup>61</sup> Not all Chilean technical-vocational education is linked with the industry, but partnerships of this kind are not rare. Usually, these partnerships do not guarantee jobs for students after they

principal assumed leadership of the school in 2007, the school had roughly 400 students in grades 9-12 and four upper high school tracks (one college-bound and three technical-vocational).

Like Chapter Five, this chapter has three sections. First, I describe the school's curriculum reshaping since 2007, when the current principal took office. Second, I describe *San Nicolás*' current whole curriculum as (a) *extended*, because of the length of the school day (from 8:20 am until 5:40 pm); (b) *collected*; and (c) *ambitious*, because of the underlying culture that encourages each student to become his or her best self. Finally, I conceptualize the curricular model as university-like because it fosters excellence through specializations, offers broad areas of choice, and promotes autonomy. As in Chapter Five, the first sections are more descriptive than the last one, where I theorize the curricular model of this unusual, innovative school.

### **A Visionary Principal and the Thrust of the *Bicentennial Schools* Program**

Most interviewees agreed that the transformations at *San Nicolás* had two milestones. Innovations began when the principal took office in 2007 and were bolstered when the school became a *Bicentennial School* at the end of 2010.<sup>62</sup> Considering these milestones and what the

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graduate, just a place where to do the 450-hour internship required for graduation. Chapter One mentioned that (a) by 2012, 45% of Chilean 11<sup>th</sup>- and 12<sup>th</sup>-graders were in technical-vocational tracks (see Footnote 8), and (b) there is a significant socioeconomic difference between students in the college-bound and the technical-vocational tracks (Sevilla, 2017).

<sup>62</sup> The Ministry of Education's (MINEDUC's) *Bicentennial Schools* program owes its name to the commemoration of Chilean independence (from 1810). The program supported 60 public or publicly-subsidized high schools in low and lower-middle class areas throughout Chile to offer high quality education that helps students from these contexts to get to college.

Each *Bicentennial School* signed a 10-year agreement with the MINEDUC, committing to (a) be among the top 10% of the public and publicly-subsidized schools (nationally) in the standardized tests for 10<sup>th</sup> grade, (b) be among the top 5% of the public and publicly-subsidized high schools in the college-entrance exams, and (c) take the curriculum coverage tests prepared by the program officers. The MINEDUC's support consisted of the tests mentioned, teaching materials, consultancies, and professional development. Schools were autonomous to work as they wanted, as long as they met the aforesaid commitments.

The program did not include guidelines for student selection in the case that applicants were more than the slots available. Schools were autonomous on this matter, and most developed test-based selection processes while a few opted for lottery systems. In 2016, Chile



data showed about the school's current challenges due to the rapid expansion since 2011, I submit that the school's curriculum reshaping happened in three stages:

1. From 2007 to 2010, the school developed the foundations of its current curriculum.
2. From 2011 to 2014, the school grew as a *Bicentennial School*. This meant adding 7<sup>th</sup> and 8<sup>th</sup> grades, almost tripling the student and teacher bodies, and developing multiple strategies to address students' learning gaps to help them to get to college.
3. Since 2015, *San Nicolás* began to explore new ideas such as interdisciplinary learning, which have been difficult to implement. The school's size, the departmentalization, and the expectation of maintaining the top-charting results have thwarted most changes.

Figure 6.1 illustrates this evolution of the curriculum at *San Nicolás*.

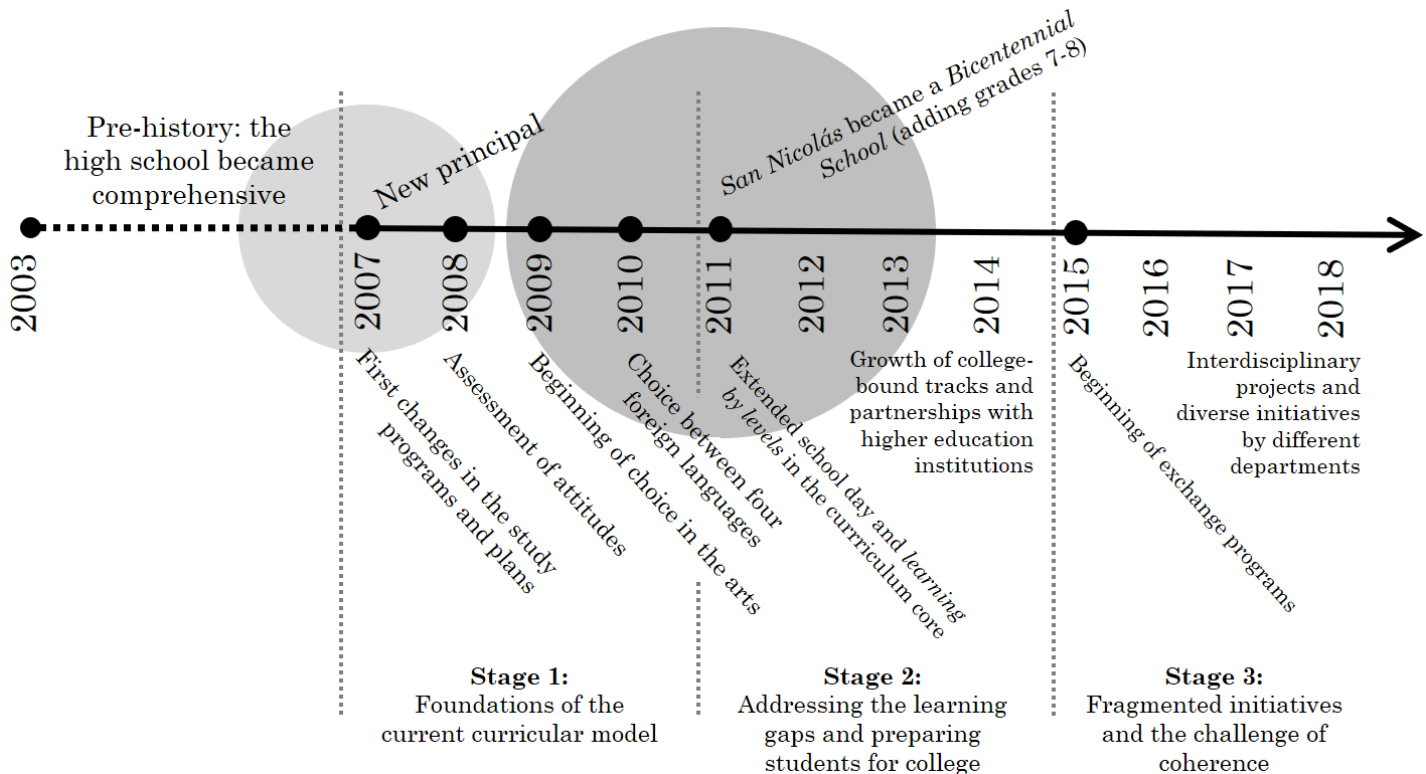


Figure 6.1. Timeline of *San Nicolás*' curriculum evolution since 2007.

prohibited merit-based selection at the K-12 level in public or publicly-subsidized schools, which was harshly contested by most *Bicentennial Schools* (although not by *San Nicolás*).

This curricular reshaping could be characterized as an interplay of two *projects* brought forth with the two milestones (the circles in the figure). On the one hand, the principal established the vision of giving each student what he or she needs to flourish, encouraging an expansion of choice so students could shape their own developmental pathways. On the other hand, the *Bicentennial Schools* program (henceforth, the *Bicentennial*) set the goal that all students become proficient in the curriculum core, raising the school's achievement standards and expanding the horizon of possibilities for after high school. The interaction of these two projects resulted in a curriculum that intends that students learn the common core and choose a personalized route among several options. The following subsections present what the data indicated about the three stages of curriculum reshaping and how the two projects interacted throughout these stages.

**Foundations of the current curricular model (2007-2010).** Talking about the changes in the school's curriculum, one teacher shared, "I came in 2006, so I have witnessed the whole evolution of the school model." Another teacher added that "at the root [of the innovations] there is a person ... the principal, who is a visionary." Aside from the inauguration of the school's fourth technical track in 2007 –namely, *wood products*– five key innovations from this stage were (a) the school's first own programs and plans, (b) the assessment of attitudes, (c) the start of choice in the arts, (d) the expansion of the offering of foreign languages, and (e) dropping religious education. These changes prefigured the current shape of *San Nicolás'* curriculum.

During the principal's first year in office, three teachers designed new study programs for grades 9-10. A social sciences teacher developed new study programs for civic education, a biology teacher developed new study programs for sex education, and a chemistry teacher developed new study programs for environmental education. The 2008 study plans –which indicated the number of class periods allotted to each subject– included additional class periods

of natural sciences and history for teaching these programs. For the principal, “the most important challenge was convincing teachers that they could do it.” He still remembered that,

I asked teachers: ‘Is it useful to teach what you teach?’ And they would answer, ‘Well, this is what the Ministry mandates.’ So I had to tell them, ‘You’re professionals, go and redesign your study programs!’ ... Teachers were scared that government supervisors would come, but nobody came ... and we changed the programs; one by one.

According to an administrator, “Now teachers know. They can propose new study programs, and we get the MINEDUC’s approval for them.”

In 2008, *San Nicolás* implemented a novel system for assessing student attitudes such as following the teacher’s instructions in class. The principal had seen this system in Spain, and “When I became the school’s principal, I got the opportunity to implement it in Chile.” A teacher recalled that, at that time, “we were about 30 teachers ... and we had collective discussions about the rubric for the assessment of attitudes.” The next section describes this rubric and how it is used. What matters for now is grasping that the school has assessed student attitudes in class for 11 years, and “this has determined that students learn how to behave” (Teacher).

The same year, the music teacher and the principal discussed a new model for teaching the arts. At that time, 9<sup>th</sup> and 10<sup>th</sup> grade students had the three weekly class periods mandated by the MINEDUC, during which they chose either music or visual arts. The music teacher recalled sharing with the principal that

I wanted to fascinate them with music, but I had students in class who did not want to be there ... and I had to deal with them ... The principal responded, ‘Propose me a better model’ ... and this is how we began to change.

Concretely, the teacher proposed to shift from the traditional music classes in Chile, which consist of a general overview of many topics, toward an array of specialized classes where

students pursued their interests and teachers could detect and foster talents. This shift implied hiring more teachers, so implementing the plan took several years. Today, students can choose among five musical electives, one of which –orchestra– includes many instrument alternatives.

During 2009 and 2010, *San Nicolás* expanded its offering of foreign languages from two to four and made it mandatory to study two of them throughout high school. Historically, the school offered English and French. English is mandatory in Chile, and the school did not drop French when the country did (with the 1998 curriculum reform). In 2009, the principal partnered with the German Embassy to bring German teachers to the school. In 2010, *San Nicolás* piloted a new program of the MINEDUC that brought Chinese teachers to the country. By the end of 2010, the school got official approval for requiring to take two foreign languages in all grade-levels (using some of the school’s class periods of free disposal for this purpose).

Another important curriculum change during this stage was cutting religious education.<sup>63</sup> The school’s official documents still include the mandated periods for the subject. However, the school schedule does not include them, and *San Nicolás* does not have religious education teachers. According to an administrator, “When we became a *Bicentennial School* [at the end of 2010] we had already ditched religious education.” Another administrator shared that “We had Catholic and Evangelical religious education teachers, but they were terrible ... Students were not making good use of this time ... so we simply cut it.” The school could have hired better teachers, but educators agreed that this time had to be put to better use because “religious education should be a concern of the parents, not of the school ... The school was visionary on this matter” (Teacher). The next section shows how the school uses in practice the time allotted to religious education in theory.

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<sup>63</sup> All Chilean schools must offer two weekly periods of religious education. For more references, go to subsection *Place of the National Cross-Curricular Goals* in Chapter Two.

I could not collect *San Nicolás' institutional educational project* (PEI for its Spanish initials) from this stage. Nevertheless, the described changes give a good idea of the school's whole curriculum by 2010. *San Nicolás* was still a 400-student 9-12 grade, predominantly technical-vocational school in a rural context. Yet, the new principal had introduced changes that made the school's curriculum richer. An original assessment of attitudes began to shape a new school culture, religious education disappeared from the curriculum, it became mandatory to study two foreign languages, and by 2010 students could choose among four options in the arts (a general visual arts class and three musical options). Most likely, the vision underlying these changes was one of the reasons why the MINEDUC selected this small school from a marginal, rural town to be one of the country's *Bicentennial Schools* (see Footnote 62).

**Addressing the learning gaps and preparing students for college (2011-2014).** *San Nicolás* became a *Bicentennial School* by the end of 2010, but the effects of the program were not felt until 2011. This school year, *San Nicolás* welcomed 7<sup>th</sup>-graders (so, in 2012, the school became 7-12). Most importantly, however, the program meant beginning to test student knowledge and curriculum coverage monthly. This testing revealed large problems in the subjects of the curriculum core (especially mathematics and language and literature). An administrator remembered that “We became desperate for not knowing what to do. We had academic support programs, but results were still low.” The heart of this second stage of curriculum reshaping was addressing these learning gaps and helping students to get to college.

The *Bicentennial* entailed a commitment to high performance and gave autonomy to the school –as well as multiple supports– to face this challenge. This situation forced administrators and teachers to deliberate about what to do. My analyses indicated that these deliberations ended in three actions that *San Nicolás* either began to implement in 2011 or reinforced (because they were already in place, but at a smaller scale). Table 6.1 summarizes these actions.

Table 6.1

*Actions implemented or reinforced in 2011 to address students' learning gaps*

Action	What?	Why?	Comment(s) from interviewees
Redesign the study programs of the core subjects for grades 7-8	Review the central contents of grades 4-6 in addition to teaching the 7-8 grade contents	Students did not know well many elementary school contents required to learn the high school contents	"We realized that if we didn't tackle the problems that students carried from elementary school, we couldn't move forward. This was our previous mistake: We moved forward trying to cover the curriculum ... but students couldn't learn because the base never was leveled" (Teacher).
Extended school day	Extend the school week from 42 to 46 weekly class periods, i.e., extend the school day until 5:40 pm (Monday thru Thursday)	More hours of school work were necessary to have full coverage of the intended curriculum (especially in math and language and literature)	"We couldn't cover the curriculum in the time we had because of the amount of leveling up that we had to do" (Teacher). "If this model began from PK, as it occurs in private schools, we wouldn't need this. However, when you have six years to place a student in medical school, how do you do it? ... Doing what most public schools do? No way! They stick to the mandated 42 hours, they teach what the Ministry indicates ... and see where they are ... We changed that" (Administrator).
<i>Learning by levels (or flexible groupings)</i>	Divide students (during the same class period) according to their level of proficiency in the subject	It was impossible to level up all students if the classrooms had students with very different capacities and learning gaps	"We realized that ... if a teacher attended the more advanced students, the less advanced students were neglected ... But the opposite also was true: if the teacher moved at a slower pace, the more advanced students got bored ... Thus, it was necessary to meet the needs of all students. This is why we generated the <i>flexible groupings</i> " (Teacher).

Source: My elaboration based on the data analysis.

The first two actions in Table 6.1 basically aimed at guaranteeing that all students mastered the central elementary school contents necessary to perform well in high school. As an administrator shared, in 2011 educators saw "the content voids with which students came to high school ... and we [learned] that if these voids were not filled in ... we couldn't move forward." Consequently, teachers redesigned the math, language, natural sciences, and history and social sciences study programs for grades 7-8 so that these programs covered the mandated learning goals for the whole 4<sup>th</sup> to 8<sup>th</sup> grade sequence. The extension of the school week from the

mandated 38 or 42 weekly class periods (in grades 7-8 or 9-12, respectively) toward 46 class periods aimed at securing the time needed to teach these augmented study programs.<sup>64</sup>

The third action listed in Table 6.1, known as *learning by levels* or *flexible groupings*, separated students into sections by their level of proficiency in the corresponding subject to reduce the need for differentiated programs. A teacher clarified that this strategy “already existed in 2010 ... However, it was only used in a 10<sup>th</sup> grade crash course to prepare students for the national standardized tests.” In the face of the new challenge of raising the achievement of all students in the subjects of the curriculum core, the strategy began to be used more broadly. Another teacher remembered that in 2011 and 2012,

We had many department meetings to analyze the flexible groupings ... Most departments were in the same boat. Why group students in this or that way? ... We did not have general faculty meetings because we had already expanded to 70 or 80 teachers, but there was much discussion, and the department heads channeled our opinions.

The ultimate purpose of these three actions was not just to advance student proficiency in the core subjects, though; it was to help students to get to college. This purpose, not stated as such before this stage, posed a new horizon for *San Nicolás*. One teacher recalled,

When I arrived in 2011, we began to promote the idea that students went to college to study what they wanted. That’s when the dream of going to college gained traction ... the idea that students could break with their context. Before, *San Nicolás* was chiefly technical-vocational ... now it is completely different.

This new horizon is now central to the school’s curriculum.

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<sup>64</sup> This extension went beyond MINEDUC’s *Full School Day* policy from the late 1990s. This policy extended the school time from 33 to the 38 or 42 weekly class periods mentioned throughout the dissertation. *San Nicolás* moved up to 46 periods. More references to the *Full School Day* policy in subsection *Use of the Class Periods of Free Disposal* in Chapter Two.

Driven by this new aspiration, *San Nicolás* went from one to four college-bound tracks in three years. In 2012, the single college-bound track since the school's beginnings split into two tracks: a humanities track and a scientific track. In 2013, the scientific track split into a biochemistry and a math and engineering (i.e., a STEM) track. In 2014, the school added a pre-military college-bound track. According to a teacher, the *Bicentennial* increased student enrollment, "but also changed the student profile. Before, students typically said, 'I will take the college-entrance exams, but I will pursue my technical-vocational career.' When we implemented the four college-bound tracks, students became destined to go to college."

Along with the aforementioned changes, from 2012 on *San Nicolás* built partnerships with regional colleges and universities. One teacher explained that,

The first step was that students get to college ... But then we faced the problem of helping students to do well in college. We had to modify all the study programs in mathematics, language and literature, and natural sciences to assure to the families that their children would not return home after the first year of college ... Because it happened that some students quit and went back home saying they weren't smart enough.

The first partnership was with *Universidad del Biobío*, which agreed to recognize the 12<sup>th</sup> grade algebra, calculus, and chemistry courses for college credit if teachers added some content to them (which they did). Today, *San Nicolás* also has an agreement with *Universidad de Concepción*.

Although the prior innovations were the core of the second stage of curriculum reshaping, other changes occurred along with the school's growth and the expansion of the college ideal. In 2014, educators in the technical-vocational track *industrial chemistry* signed an agreement with INACAP, a technical institute of higher education. In time, the other technical-vocational tracks signed similar agreements with other institutions. Also in 2014, the visual arts and physical education departments changed their model in line with what the music department did since



2009. That is, they shifted from the traditional visual arts and physical education classes in Chile (which consist of a general overview of their respective areas) toward specialized classes. In these specialized classes, students can follow their interests and teachers can foster talents. Today, students at *San Nicolás* can choose among a broad array of artistic and sports alternatives.

By the end of this stage, *San Nicolás* was very different than in 2010. It was 7-12 and had more than 1,000 students and 100 teachers. The principal's vision of giving each student what he or she needs to flourish combined with the *Bicentennial's* goal that all students master the common core so they have the tools to get to college. This combination resulted in a rich and compelling vision. In this vein, the curriculum became extended (i.e., included classes until 5:40 pm, Monday through Thursday) and focused on the curriculum core, while still offering choice in many areas (e.g., foreign languages, the arts, and physical education.)

Something essential for the following analyses is that most of what I described for this stage was possible due to a slow, but steady process of departmentalization. All the revisions of the study programs, the implementation of the flexible groupings, the partnerships with higher education, and the development of the curricular alternatives where there is choice were undertaken by increasingly larger and more independent departments.

**Fragmented initiatives and the challenge of coherence (since 2015).** The current curriculum at *San Nicolás* is more or less the same as it was in 2014. In 2016 and 2017, teachers revised the study programs for grades 7-10 and for the 11-12 grade technical-vocational tracks because the MINEDUC changed the corresponding curriculum frameworks. However, the new programs were fairly similar to those from 2011 and 2012. As mentioned, most educators agreed that the last major curriculum milestone was the *Bicentennial*. Moreover, the latest PEI stated that *San Nicolás* “maintain[ed] for this new period (2015-2018) its vision and mission ... from 2010, when the school became a *Bicentennial School*” (LBSN, 2015, p. 17). Perhaps the most

significant whole curriculum innovation of the recent years was starting the exchange programs, with the first international students coming to *San Nicolás* in 2015.

Why were there less curricular changes during this last stage? As the school continued to grow –to around 1,400 students and 150 educators in 2018– and attained better academic results, curriculum reshaping became much more complex. Various departments implemented changes during these years, but these innovations seemed fragmented, independent initiatives rather than a coherent reshaping of the whole curriculum. For instance, at the end of 2017, the natural sciences department decided to replace the weekly class period of sex education in grades 9-10 with a class on entrepreneurship. A science teacher explained that, “We no longer need[ed] sex education because the topic [was] no longer taboo for the students. The issue now [was] how they learn[ed] to be entrepreneurs.” The department of student affairs was increasingly concerned about giving more attention to issues of sexuality, but the two departments never connected and the weekly class period of sex education disappeared.

Several teachers and administrators thought that the most significant whole curriculum challenge of the last years was developing interdisciplinary projects. Since the first initiative of this kind by a math and a physics teacher in 2015, “the principal has consistently encouraged us ... to do more of it” (Teacher). Over the years, other pairs of teachers developed projects. In 2017, the English department proposed various initiatives with other departments. However, most teachers commented things like, “Each department develops its own study programs ... How can we do interdisciplinarity if there isn’t something that connects the whole system?” (Teacher).

Most of the above-mentioned issues relate to a paradox at the core of *San Nicolás*’ process of curriculum reshaping: the school grew –and improved its achievement standards– by creating departments and encouraging them to be autonomous and proactive. An administrator shared that, “I am the one who should say [which initiatives will move forward and which ones

will not], but it hasn't happened because our philosophy has been to let departments do. We opted for letting them innovate, without clipping their wings." In time, however, this strategy derived in fairly independent departments, and innovation became a myriad of fragmented initiatives. One teacher commented that, "I think that our many projects are great, but without ... a more general vision of where we want to go, it doesn't work. We waste energy."

By the end of 2017, two teachers proposed to the principal a comprehensive revision of the school's study plans (i.e., the time allotted to each subject). They posed that it was necessary to cut down the excessive time spent in the curriculum core since 2011 and to recover the original purpose of the class periods of free disposal, which was to do things other than more math and language. Also, they argued that this was the only way to actually do more interdisciplinary work. The principal responded by assigning these teachers 10 hours per week during 2018 to advance the proposal. When I conducted the fieldwork for this study in early 2018, he reflected,

I imagine [*San Nicolás*] as an interconnected brain. Today ... it's like many separate neurons [the departments] ... They all blink ... Every once in a while, in a[n] [interdisciplinary] project you connect things and see a brighter light. Then it disappears and things continue separated ... What will happen if I connect them all in a single plan? That's what I want [these two teachers] to do; to connect what nobody connects.

However, when I returned to *San Nicolás* in November 2018 for participant validation, I found that the revision of the study plans had gone astray. Getting the departments to collaborate was very difficult. Most importantly, the school's results in the latest 10<sup>th</sup> grade standardized tests were among the highest in the country and most educators did not want to discuss a curricular innovation that could potentially hurt these results.

In sum, *San Nicolás* evolved from being a small 9-12, chiefly technical-vocational high school in 2007 toward being a large 7-12, complex comprehensive high school in 2018. From the

perspective of the curriculum, this evolution had three stages. The first stage began to carry out the principal's vision of offering many areas of choice so that students could pick what they needed (or wanted) to flourish. The second stage raised the school's academic standards and installed the college ideal in hand with a rapid growth through departmentalization. During the third and present stage, curriculum reshaping became very complex due to the school's size, its departmentalized structure, and the pressure for maintaining the top-charting results in standardized achievement tests. Most recent innovations were minor initiatives within a single department's scope of control.

### **An Extended, Collected, and Ambitious Curriculum**

This second section of the chapter offers a full picture of the current curriculum at *San Nicolás*. The section has five subsections in which I present four parts of the curriculum, plus the school's culture that fosters and supports hard work across the four parts. The four parts are (a) the four-subject curriculum core, (b) the foreign languages, (c) the chiefly artistic and sports periphery of the curriculum, and (d) the technical-vocational tracks for grades 11-12. Each of these parts groups three to five departments that share a specific goal within the larger curriculum and a particular way of grouping students for the respective classes.

Before delving into each of the parts, though, I discuss some general aspects of the curriculum at *San Nicolás* observable in the school's study plans. Table 6.2 has a comparison between these study plans and the MINEDUC's optional plans. As in Chapter Five, the former plans are my own reconstruction of the number of periods spent on each subject in practice (not exactly what is in the official documents). The averages in the right columns give an idea of the time that a regular student spends on the first three parts of the curriculum during the course of high school. The track-related specialized courses only are taken by the 11<sup>th</sup>- and 12<sup>th</sup>-graders who choose the respective tracks.

Table 6.2

*Number of 45-minute weekly periods allotted to each subject at San Nicolás (SN) compared with MINEDUC's national plans*

Subject	7 <sup>th</sup> and 8 <sup>th</sup> grades			9 <sup>th</sup> and 10 <sup>th</sup> grades			11 <sup>th</sup> and 12 <sup>th</sup> grades (college-bound)			11 <sup>th</sup> and 12 <sup>th</sup> grades (technical-vocational)			Average 7-12 periods at SN*	Average 7-12 Diff*
	MINEDUC	SN		MINEDUC	SN		MINEDUC	SN		MINEDUC	SN			
	Periods	Periods	Diff	Periods	Periods	Diff	Periods	Periods	Diff	Periods	Periods	Diff		
Mathematics	6	10	+4	7	8	+1	3	6	+3	3	5	+2	7.83	+2.5
Language and literature	6	10	+4	6	8	+2	3	6	+3	3	4	+1	7.67	+2.67
Natural sciences	4	6	+2	6	8	+2	4	4	0	-	-	-	5.33	+1.33
History, geography, and social sciences	4	5	+1	4	5	+1	4	5	+1	4	4	0	4.83	+0.83
1 <sup>st</sup> foreign language	3	3	0	4	4	0	3	3	0	2	2	0	3.17	0
Curriculum core	23	34	+11	27	33	+6	17	24	+7	12	15	+3	28.83*	+7.33*
Art and/or music	3	4	+1	2	3	+1	2	2	0	-	-	-	2.67	+0.67
Religious education	2	0	-2	2	0	-2	2	0	-2	2	0	-2	0	-2
Physical education and health	2	3	+1	2	3	+1	2	2	0	-	-	-	2.33	+0.67
Technology	1	1	0	2	2	0	-	-	-	-	-	-	1	0
Counseling or <i>curso</i> council	1	1	0	1	1	0	1	1	0	0	1	+1	1	+0.17
Philosophy and psychology	-	-	-	-	-	-	3	3	0	-	-	-	0.5	0
Curriculum periphery	9	9	0	9	9	0	10	8	-2	2	1	-1	7.5*	-0.5*
2 <sup>nd</sup> foreign language	0	3	+3	0	4	+4	0	3	+3	0	2	+2	3.17	+3.17
Track-related specialized courses	-	-	-	0	-	-	9	11	+2	22	28	+6	6.5	+1.33
Class periods of free disposal	6	0	-6	6	0	-6	6	0	-6	6	0	-6	0	-6
Differentiated plan	6	3	-3	6	4	-2	15	14	-1	28	30	+2	9.67*	-1.5*
Total weekly periods	38	46	+8	42	46	+4	42	46	+4	42	46	+4	46	+5.33

Source: My analysis of the school schedule and other documents listed in Appendix E.

(\*) For grades 11-12, these calculations assume the average between the college-bound and the technical-vocational tracks.

A general feature of the whole curriculum at *San Nicolás* apparent in the study plans is that it is extended, i.e., it has more class periods than is mandated in all grades. As explained in the prior section, this extension dates from 2011. The reason for implementing the extension was to secure time for reviewing the central contents from elementary school in addition to teaching the high school contents. One teacher commented,

Indeed, we have an extended school day ... At first, this feels new ... but with the years [students] get bored because it is always the same: reading, reading, and more reading ...

There is a way of obtaining the good results, and this overtime is part of our way.

Ironically, students thought differently. A student who was representative of the other 12<sup>th</sup> grade interviewees expressed that “the time at school is fine because it’s what makes the difference. It allows us to study two languages, to review the contents, etc.” Presumably, this student appreciation relates to the school’s culture, described in the fifth subsection of this section.

The average extension of 5.33 weekly class periods plus the 6 class periods of free disposal add up 11.33 weekly periods available for offering alternative arrangements. Table 6.2 shows that most of this time is spent on (a) more math, language, natural sciences, and history (i.e., the four-subject curriculum core); (b) offering a second foreign language; and (c) more track-related specialized courses in grades 11-12 (especially in the vocational tracks). The periphery of the curriculum is almost the same as the MINEDUC proposed, except that the time mandated for religious education is used for a bit more arts and a bit more physical education.

**The priority of the academic core.** Many signs indicate that, despite the broad areas of choice, “the central focus of the school is academic” (Student). The 2015 PEI stated that “the school has a well-defined hallmark, namely, results in standardized achievement tests and college-entrance examinations that position the school as one of the best in the region” (LBSN, 2015, p. 13). To this end, the time allotted to the four-subject curriculum core –i.e., math,

language, natural sciences, and history— is significantly higher than what the MINEDUC proposed. In average, the MINEDUC suggested to spend 45% of the weekly schedule in these subjects, but *San Nicolás* spends 56%.<sup>65</sup> In grades 7-10, the latter percentage increases to 65%.<sup>66</sup> Additionally, there are monthly curriculum coverage tests in these four subjects.

Since the 2011 deliberations on how to address students' learning gaps, these subjects share the strategy of *learning by levels* or *flexible groupings*. The school schedules three same-grade *cursos* (around 120 students) to take the subject at the same time. This allows to group the students into four parallel sections by level of proficiency. Typically, students are in different sections across the four subjects. According to a teacher, this strategy “helps students to feel comfortable. They are in a section where no student that knows more restricts them, and, at the same time, they don't get bored waiting for others if they know more.”

Why has learning by levels been so effective? (as evidenced by the school's academic results). All the documents describing this strategy referred to the use of different pedagogies with each section, accommodating to each group's learning style. However, my observation of parallel sections addressing the same contents revealed that teachers used more or less the same pedagogy in all sections. This pedagogy included frontal expositions, dialogue, and individual or group exercises. It was not something exceptionally innovative, but it was not a teacher-centered behaviorist instruction either. This finding was validated by participants. Accordingly, I contend that the effectiveness of learning by levels comes from (a) reducing the number of students per teacher (three *cursos* become four sections) and (b) having groups of students with a similar level of proficiency, which facilitates responding to their specific questions and needs.

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<sup>65</sup> Throughout the dissertation, the curriculum core also has included English (see Tables 1.1, 5.2, and 6.2). Considering it—to make this percentage comparable with those mentioned in Chapter Five—the time spent at *San Nicolás* on the curriculum core totals 63%.

<sup>66</sup> Which increases to 73% if I add English to make the percentage comparable.

In math, the content that “has gained more importance lately has been statistical data analysis” (Teacher), which matches with McEneaney and Meyer’s (2000) prediction of the future of the subject (see Footnote 6). Due to the importance of national exams for this subject, a teacher shared that the department is “constantly analyzing the college-entrance exams ... how they evolve and what new contents need to be taught.” In terms of challenges, a teacher commented that the most significant one by early 2018 was moving towards a more applied math so students saw the use of what they studied. He added, “There is much to learn in this sense because we [the teachers] are good at just assigning 500 algebra exercises to the students.”

The teaching of language and literature at *San Nicolás* is almost completely focused on developing communication skills. As a teacher recalled, “Years ago, it was, let’s say ... narrative genre, and we worked a lot on narrative genre ... but now the content isn’t what really matters. What’s important today is the skill that I want to develop.” For some years, the department focused so much on reading comprehension that writing and oral expression were neglected. Some alumni who visited the school pointed out this neglect (which they realized when they got to college) and the language and literature department revised the teaching of writing and oral communication skills.

The class periods of natural sciences in grades 7-10 are divided: two periods of biology, two periods of chemistry, and two periods of physics (with different teachers each). The two additional weekly class periods in grades 9-10 are for environmental education –the course designed by a chemistry teacher in 2007– and the class on entrepreneurship that replaced sex education (as explained in the prior section). Transversally, what has grown the most in this area “is lab work ... Since some years ago, each unit must have either a laboratory practicum or some other applied activity” (Teacher). Aside from the class periods, the science department runs several extracurricular activities such as field trips, *star parties* (i.e., night gatherings for



astronomical observation), and the training of those who represent *San Nicolás* in the national Science Olympiad.

The subject of history and social sciences has one additional weekly class period in grades 7-10 and in the 11-12 grade college-bound tracks. In theory, this additional class period is spent on civic education, but a teacher commented that “We also have the other departments’ challenge of leveling up children’s content knowledge in the subject. Nonetheless, we have always tried to save the time for civic education, at least in 9<sup>th</sup> and 10<sup>th</sup> grades.” *San Nicolás* has its own study programs for 9-10 grade civic education since 2007. The 10<sup>th</sup> grade civic education class that I observed –on the attributions of the Chilean President– was interesting, but it rarely went beyond factual information. This experience, as well as informal chats with members of the student council made me think that, although several documents indicated that civic education was the core of *San Nicolás*’ plan for promoting citizenship education, most education on this matter was implicit.<sup>67</sup> It occurred through the school’s culture, which is described in a later subsection.

**Foreign languages and exchange programs to foster global perspectives.** A second part of the curriculum at *San Nicolás* is foreign languages. Since 2010, students have to take two foreign languages throughout high school, choosing among Chinese, English, French, and German. Chinese and German are taught by Chinese and German teachers brought to the school through the partnerships with the MINEDUC and the German Embassy that were mentioned in the first section of the chapter.

The only restriction in the choice of foreign languages –imposed on *San Nicolás* by the MINEDUC– is that English is mandatory in grades 7-8. That is, in 7<sup>th</sup> and 8<sup>th</sup> grades students take English and one other language, and from 9<sup>th</sup> grade on they can pick the two languages that they

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<sup>67</sup> For more information about a Chilean school’s plan for promoting citizenship education see subsection *Citizenship Education* in Chapter Two.

want. Some interviewees thought that English should be mandatory in all grades because of its importance in the present world. However, the guiding principle has been that students choose what they like –or are good at– so they learn. Ideally, if they know one foreign language well, this will facilitate that later in life they can learn English or other languages more easily.

Several teachers shared that the ultimate purpose of requiring two languages was not just to learn these languages, but to broaden students' cultural horizons. Due to this purpose, "A long time ago we stopped focusing solely on grammar and we began to introduce students into the countries' cultures" (Teacher). Furthermore, several teachers in a focus group believed that "learning foreign languages also reinforces students' self-esteem ... When a student from this context realizes that he [or she] is able to learn another language, he [or she] blossoms."

In a meeting with policymakers who visited *San Nicolás* while I was conducting the fieldwork for this study, the principal commented that he thought that Chilean education had become mono-cultural, but the future of the country will be decided in the global arena. He added that private schools knew this truth and were preparing students accordingly. Likewise, requiring students at the school to study two foreign languages aimed at preparing future leaders.

The partnerships that allowed to bring international teachers to *San Nicolás* also made it possible for students to travel abroad and stimulated the exchange programs. A teacher noted,

We cannot take everyone to Europe or China, but we can bring China to the school. This is what exchange programs do. Listening different languages in the hallways and seeing diverse people makes students [from this region] feel that they are not different.

In this vein, it was moving to observe a meeting of all *profesores jefe* with the principal about how to help two 11<sup>th</sup>-graders to get the funding needed to study in Europe for a semester.

**An artistic and sports periphery of the curriculum to develop talents.** Most of the school's curriculum periphery (i.e., two-thirds) is allotted to the arts and physical education. As

explained before, *San Nicolás* dropped religious education altogether before 2011 and these class periods were allotted to more arts and physical education. Technology in grades 7-10 and philosophy in the 11-12 grade college-bound tracks have the time mandated by the MINEDUC. The school does not have philosophy teachers, though, so this subject is taught by language teachers who develop reading comprehension and critical thinking skills using philosophical texts. All *cursos* have 45 minutes per week (i.e., one period) for counseling or *curso* council.

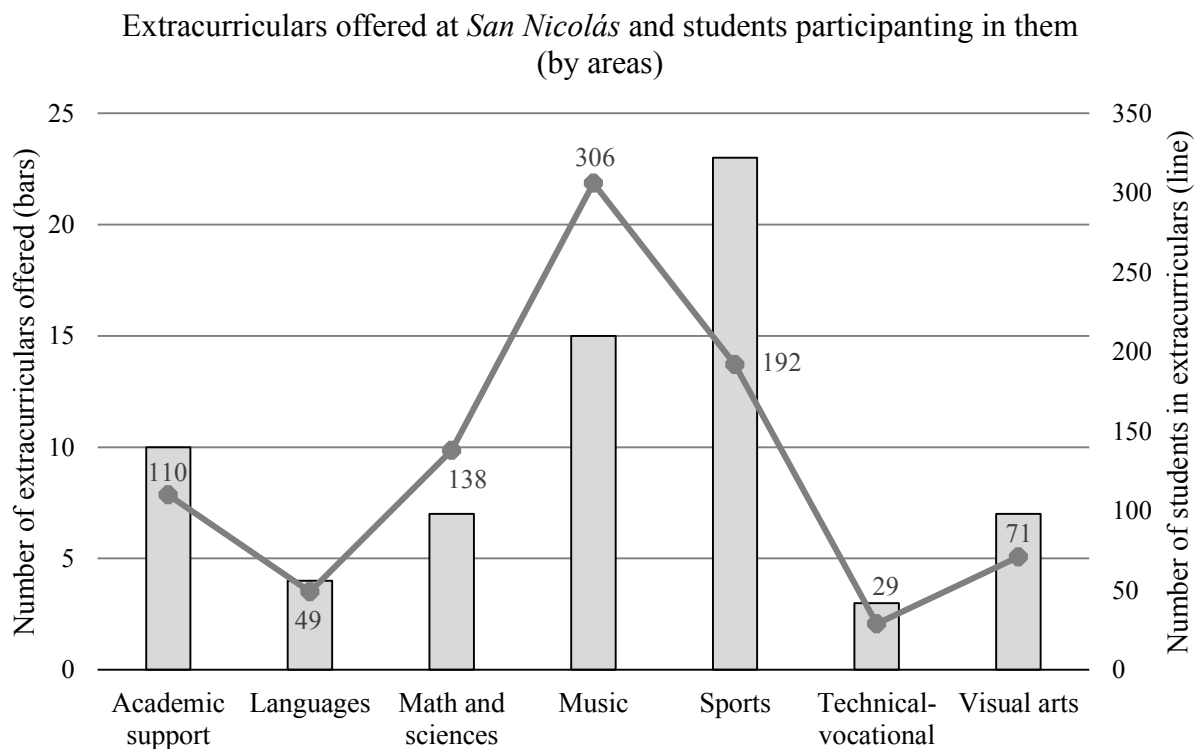
As was the case with the four-subject curriculum core and the foreign languages, the artistic and sports curriculum periphery shares a way of grouping students in the respective classes. Instead of having general arts and physical education classes, students specialize in one art –or music area– and in one sport with specialists. In short, the guiding principle is *depth over breadth*, using the little time available to foster talents. As a teacher put it, “Here we focus on the talent ... Not everybody has to do the same ... Some are good at painting, others sing.”

The weekly class periods allotted to the arts are not much: four in grades 7-8, three in grades 9-10, and two in the 11-12 grade college-bound tracks. However, because of the model, “this is quality time ... Generally, students don’t learn to play the violin in this time, but here they do” (Teacher). How does it work? A whole level (e.g., 8<sup>th</sup> grade) has arts at the same time. This allows to have 10 parallel sections with specialists: (a) choir, (b) dance, (c) traditional Chilean music, (d) orchestra, (e) painting, (f) analytic drawing, (g) murals, (h) *cosplay* (or costume play), and (i) general music or (j) visual arts classes, for those who do not want to specialize.

The time allotted to physical education at *San Nicolás* is almost the same as for the arts: three weekly periods in grades 7-10 and two periods in the 11-12 college-bound tracks. Using the same model, the sports alternatives are (a) soccer, (b) basketball, (c) volleyball, (d) track and field, (e) ping-pong, and (f) dance (all for both males and females). A teacher commented that, given the school’s academic focus, “We [the physical education department] help students to

have a different experience ... We help them to relax and think about other stuff than the hard subjects.” As in the arts, sports specializations allow to develop talents, which is why *San Nicolás* has several well-ranked sports teams and some national champions (e.g., in the shot put).

On top of what has been mentioned, the school offers a plethora of extracurriculars. According to a list provided by the administration, there are 69 extracurriculars and between 50 and 60% of the students participate in at least one of them. Sixty-one percent of these extracurriculars are on Friday because classes end at 1:30 pm that day. The other days, extracurriculars go from 5:45 to 7:15 pm (i.e., two class periods after the extended school day). Figure 6.2 summarizes the extracurriculars offered and student participation in them by areas.



*Figure 6.2.* Number of extracurriculars offered and students participating in them. Source: Listings shared by the administration.

I mention the school’s extracurriculars in this subsection because 45 of the 69 (i.e., 65% of them) are basically practice time for students who specialize in a sport or an artistic area (i.e.,

music or visual arts). For instance, a 9<sup>th</sup>-grader who plays the cello practices during the three 45-minute periods per week that he or she has in the regular schedule, plus two extracurriculars during the week and the three-hour assemble of the whole orchestra on Saturday mornings. This way, most of the extracurriculars extend the regular curriculum in those areas that need additional practice.<sup>68</sup> I observed a Friday extracurricular violin practice and was impressed with the quality of what I heard. It was sublime to observe a group of 9-12 grade violinists play together and discuss the interpretation of the piece with their teacher.

**The upper high school technical-vocational tracks.** By the end of 10<sup>th</sup> grade, students have to choose an upper high school track. As said, students are offered eight alternatives: four college-bound and four technical-vocational. Table 6.3 summarizes these alternatives and the number of 11<sup>th</sup>-graders in each of them during 2015. Because of the significance of this choice, the department of student affairs has a special focus on assisting students to make the best choice. This assistance includes information and counseling. During 10<sup>th</sup> grade, student affairs organizes several talks on what the tracks are about and what future pathways they lead to.

Table 6.3

*Number of 11<sup>th</sup>-graders in each of the upper high school tracks at San Nicolás during 2015*

	Tracks	Number of students	
College-bound	Humanities	44	159 (60.5%)
	Biochemistry	38	
	Math and engineering	44	
	Pre-military	33	
Technical-vocational	Industrial food processing	26	104 (39.5%)
	Collective food services	32	
	Industrial chemistry	21	
	Wood products	25	

Source: The 2015-2018 PEI (LBSN, 2015, p. 5).

<sup>68</sup> The 10 academic support extracurriculars in Figure 6.2 are either content reviews for students with low achievement, or preparation of college-entrance exams for 12<sup>th</sup>-graders.

Here, I focus on the technical-vocational tracks because the four college-bound tracks are basically specialized courses in math, language, natural sciences, and history (such as calculus or organic chemistry).<sup>69</sup> As mentioned in the first section, the technical-vocational tracks were built upon partnerships with local businesses that guaranteed that each student could do the internship required for graduation. Since 2014, these tracks began to sign agreements with technical institutes that have helped to project each track to the future.

The national curriculum frameworks mandate that 11-12 grade technical-vocational tracks dedicate 22 weekly class periods to track-related specialized courses (see Table 6.2), but *San Nicolás* dedicates 28 (i.e., these years' class periods of free disposal are used entirely to enrich the specialized training). As a teacher explained, "We use these extra periods to innovate." For instance, the tracks *industrial chemistry* and *wood products* implemented a new course for students in these two tracks on risk prevention. This course is recognized for credit by INACAP, the technical institute of higher education with which these tracks have an agreement. Also, "The students in these tracks continue to have two foreign languages ... which is super interesting ... because we're training skilled workers who know two foreign languages" (Teacher).

The current situation of the technical-vocational tracks has been the result of a significant evolution since 2007 towards professionalizing the technical-vocational training. A teacher reflected that, "Initially, our goal was to prepare students for the world of work ... Next, we transitioned toward ... the idea of entrepreneurship [and self-employment]. Recently ... we moved toward preparing them for higher education." In general,

Our students like practical, hands-on work. However, ... with the intention of preparing them for higher education ... we are teaching them how to use more sophisticated tools ...

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<sup>69</sup> The pre-military track is a mix of math and humanities courses with an outdoor training run by a former military officer who belongs to the physical education department.

I remember that, once, my students [in *wood products*] insisted on nailing and sawing, so I said to them, ‘Those who want to earn 300,000 pesos go to get nails and a hammer. Those who want to earn 600 or 700,000 pesos go to get the technical plans that I gave out last week so we learn to read them.’ Of course, they all went to get the plans. (Teacher)

A third teacher explained that, “I am orienting my track [*industrial food processing*] ... toward understanding the science involved in the processes that students learn to execute.” The four technical-vocational tracks are moving in a similar direction.

Despite this evolution, several interviewees pointed out that the contrast between the technical-vocational and the college-bound tracks had become complicated. As mentioned in the prior section, the *Bicentennial* introduced a significant change in students’ aspirations, which had a direct link with social status and the choice of upper high school track. A teacher shared that, “Students have told us that certain teachers from the core departments ... have said to the smarter students things like ... ‘Why are you going to choose a technical-vocational track if you are a good student?’” Reflecting about this point, an administrator said that all students get the same opportunities, but “they still think that ... being in a college-bound track means that *you’re smart*, and being in a technical-vocational track means that *you’re lazy*.”

This contrast is not specific to *San Nicolás* (Sevilla, 2017). It relates to a larger social infrastructure that determines a system-wide hidden curriculum in which the school’s curriculum is embedded. Participants who validated my findings stated that this issue had grown in importance (and pervasiveness) since 2011. Moreover, these participants agreed that the 2016 *Tuition-Free College* policy, implemented to address inequity in Chile, ironically had worsened the situation by strengthening the narrative that success equated to going to college.<sup>70</sup>

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<sup>70</sup> The 2016 *Tuition-Free College* government policy was a direct consequence of student protests of 2011. In short, the Chilean government pays the college tuition of all students from

As referred in the prior section, the 2010-2018 expansion of *San Nicolás* from roughly 400 to approximately 1,400 students (or alternatively, from 30 to 150 teachers) was tied to a strong process of departmentalization. Thus, the four curriculum parts described are loosely connected with each other, making the school's whole curriculum an example of Bernstein's (1971) *collected curriculum*. In this type of curriculum, quality is achieved through specializations and what integrates the school experience is not explicit.

**A culture that fosters and supports hard work to succeed.** Based upon my analyses, I contend that what integrates the curriculum at *San Nicolás* is a culture of high expectations and support. This culture combines the principal's vision of giving each student what he or she needs to flourish and the narrative of high achievement infused in *San Nicolás* by the *Bicentennial*. As a teacher put it, "Our work boosting students' self-esteem ... transformed the school and created a new culture. This culture ... is the school's strength."

The discipline and the work ethos are essential to sustaining this culture. Something that impressed me about *San Nicolás* when I first visited it in 2017 was its disciplined work environment. Two or three minutes after the bell rang to signal a change of classes, everybody was already in class and the hallways were almost empty. Students explained to me that "above all, we are on time because of the attitudinal assessment ... because we lose points for being late."

How does the assessment of attitudes work? Students' attitudes are assessed three times per semester in each subject. This assessment is worth 20% of the subject's final grade. Concretely, the rubric for this assessment includes six criteria: (a) active participation in class; (b) following the teacher's instructions; (c) being respectful of others; (d) being responsible; (e) complying with classroom norms (such as being on time); and (f) demonstrating a *spirit of*

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the lower 60% of the population (in socioeconomic status) who get admitted at any of the 30-40 colleges and universities that endorse the policy (with its multiple conditions).



*improvement*. Talking about this, a teacher commented that “all success begins from one’s attitude, so I think that it’s very positive that we assess and educate students’ attitudes.”

The improvement of the school’s results over the years –with an increasing number of students going to college– validated the narrative that anything is possible if you work hard at it. A student shared that “you have to let go many things, such as your leisure time. There are high schools in which classes end at 3:00 pm. Here, you practically go home at 7:00 or 8:00 pm ... and you have to understand this well.” Similarly, an administrator reflected,

Yes, I see that they [the students] end up tired ... But, is this a big problem? I would say that it’s something that we have to take into account ... What you hear from our alumni in college is that they are well prepared and people ask them, ‘Where did you study?’

In this vein, “it’s interesting that with so much work and so many classes, they [the students] are happy; they love the school” (Teacher). All the data indicated that *San Nicolás* promoted high expectations for all and hard work upon the joyous hope that effort and sacrifice will lead to higher education and a better future for each student and his or her family.

*San Nicolás* offers important supports to attain these goals and dreams. The department of student affairs attends the most critical cases so “difficulties do not become impediments for realizing one’s life project” (Teacher). However, the most important support comes from the teachers. One of them commented that, “We do an immense work of support ... We become like family for them [the students].” The background of this quote is twofold. On the one hand, 12.8% of the students stay Sunday thru Friday at a hall for boarding students because they come from distant towns. On the other hand, most students will be the first in their families to get a higher education and some will even be the first to finish high school, which raises questions that cannot be answered at home. Hence, the context demands that teachers support students far beyond the teaching of their respective subjects, becoming “like family for them.”

Most interviewees described the school culture as warm and supportive. It was common to hear remarks like, “Children care for one another ... When someone is in problems, everybody asks and is concerned” (Teacher). Interviewees also highlighted the work done to include students with special needs. An administrator shared that, “We have a blind student who plays the trumpet brilliantly, and all students with disabilities get opportunities like that.” A student added, “The school teaches us to relate with them [the classmates with disabilities] ... They are just like my friend here [in the focus group] ... except that they have different capacities.” These support and inclusiveness were characteristic of the school culture.

Although the mentioned supports and warmth were palpable, teachers had heavy teaching loads (i.e., little time), so fostering student autonomy was as central as being supportive. In a 9<sup>th</sup> grade period of *curso* council that I observed, the *profesor jefe* apologized for not knowing all the names of his students yet (more than a month into the school year). Later, he explained to me that the load of 40 students was too heavy, and he saw most of them only once a week, during the period that I observed. He taught 9<sup>th</sup> grade math, but, due to the *learning by levels*, he only saw one fourth of his *curso* (the fourth that had his section’s level of proficiency). This way, the multiple groupings obliged students to become independent. As a student put it, “You learn that you have to ask for what you need ... You have to overcome shyness ... and stand on your own.”

Several interviewees pointed out that the flip side of the culture described was that the moral-political aspect of education was less attended than other dimensions. A teacher reflected,

I believe that there are areas that the school has neglected a little bit, which have to do with ... values, the moral side ... Although there is an explanation for that. Our first purpose has been other: to break with ... the academic gap, which is also a social gap.

Some teachers mentioned that civic education in grades 9-10 intended to foster democratic values. However, most educators commented things like, “I find students passive ... They care for

their peers, but not much beyond that” (Teacher). In short, the data indicated that the school did a great job instilling respect for others and care for the classmates, but not much more in terms of a broader concern for the common good (e.g., political issues). Implicitly, the core value promoted through the school culture was to work hard to attain your own dreams.

Table 6.4 summarizes the extended, collected, and ambitious curriculum described in this second section. This synthesis and the timeline of curriculum reshaping at *San Nicolás* in Figure 6.1 are the basis for the conceptualization of the school’s curricular model that follows.

Table 6.4

*Central features of the extended, collected, and ambitious curriculum at San Nicolás*

Part of the curriculum	Fraction of the week spent on this part <sup>71</sup>	Central aim of this part of the curriculum	Way of grouping students in this part of the curriculum
Four-subject curriculum core	55.8%	Proficiency in the mandated learning goals for math, language, science, and history.	Learning by levels or flexible groupings.
Foreign languages	13.8%	Broaden students’ cultural horizons.	Choice of two foreign languages among Chinese, English, French, and German.
Artistic and sports periphery of the curriculum	10.9%	Develop artistic and sports talents through specializations.	Choice of one art and one sport among the 10 and 6 options available, respectively.
11-12 grade differentiated tracks	14.1% <sup>72</sup>	Prepare students for higher education in a particular area through specialized electives.	Choice of one 11-12 grade track among the four college-bound and the four technical-vocational options available.
A culture that fosters and supports hard work to succeed	Transversal to all parts	Foster self-esteem, a <i>growth mindset</i> , autonomy, and achievement.	Implicit values education centered on personal effort (i.e., more individualistic and less social-political).

Source: My elaboration based on the data analysis.

<sup>71</sup> The four parts of the curriculum listed add up to 94.6% of the school week (see Table 6.2). The missing 5.4% corresponds to the total of 1 hour and 52 minutes per week (in average throughout high school) allotted to technology, counseling or *curso* council, and philosophy.

<sup>72</sup> This percentage corresponds to the average time spent on track-related specialized courses considering both the college-bound and the technical-vocational tracks (see Table 6.2).

## A University-Like Comprehensive High School

In Chapter Two, I reviewed Powell et al.'s (1985) portrayal of the typical U.S. comprehensive high school in the 1980s as *The Shopping Mall High School*. The argument was simple: since devising a curriculum that satisfied everyone's expectations was nearly impossible, high schools responded with (a) *variety*, (b) *choice*, and (c) *neutrality*. The latter meant a judgment-free atmosphere in which the burden of choosing within the variety of offerings was on students. Too often, Powell et al. observed, students responded by choosing the easiest courses.

*San Nicolás* is different from *The Shopping Mall High School*. It shares the variety and choice, but not the neutrality. The curriculum has four broad areas of choice –namely, foreign languages, the arts, physical education, and the upper high school tracks– and a variety of alternatives in each case. However, the school culture encourages high expectations for all, inviting each student to become his or her best self. In an administrator's words: "We have the expectation that all students can be more, that students from a rural town can go to Germany ... or play in an orchestra." A 12<sup>th</sup>-grader who transferred to *San Nicolás* in 11<sup>th</sup> grade commented that,

[In my prior high school], I paid attention in class, and this was enough to have good grades. Here [at *San Nicolás*], it isn't enough ... I have to study ... I always knew that I wasn't giving my best ... I knew that I could do better if ... I was asked to give more.

In other words, the culture at *San Nicolás* encourages students to grow up to their full potential in ways that other "more neutral" schools do not.

The extended school day is a manifestation of this non-neutrality (i.e., the underlying ambition) of the whole curriculum at *San Nicolás*. On the one hand, "We make children stay because it's good for them ... In the city, students finish school at 4:00 pm and afterwards they begin to try things in the park [i.e., alcohol or drugs]" (Administrator). On the other hand,

Farmers can't understand that someone reads a book. If you're sitting under a tree reading a novel, you're slack ... So, what did we do? We pulled students out of their houses ... The more time that we have them here, the more we can do for them. (Administrator)

Simply put, aside from securing time to learn the core contents well, the extended curriculum pulls students away from contexts that could potentially hinder their growth. As a teacher expressed it, "If we hadn't done this ... maybe we wouldn't have changed these students' lives. Because, at bottom, that's the issue."

Ultimately, this non-neutrality is about power and meritocracy. It is about "giv[ing] to the student the tools that he [or she] needs ... to fight with the same weapons as a student from a private school" (Teacher), overcoming the latter students' privilege with merit earned in a public school. In this sense, the combination of the principal's vision with the high standards of the *Bicentennial* produced a curriculum that "generates social mobility ... That's the key: generating social mobility through education" (Teacher). This discourse was so deeply internalized by most interviewees that it was not surprising to hear a student say, "The school teaches us ... that not because of not having money we can't be someone in life ... The school teaches us meritocracy."

The relationship between this ambitious school culture (and its meritocratic grounding) and the school's collected curriculum was something largely undertheorized, though. An administrator who tried to conceptualize the school's model a couple of years before this dissertation shared that, "I researched ... and I couldn't find a model ... that captured what we had done. After much reading, I told [the principal] that we had done something eclectic ... based on distributed leadership." In other words, this administrator saw that the school grew through departmentalization (viewed as distributed leadership) and this resulted in an eclectic curricular model, but the focus on the organizational side of departmentalization overlooked its significance regarding knowledge, identity, and power (Siskin, 1994).

As mentioned in Chapter Three, Bernstein (1971) studied the link of the institutional infrastructure of schooling with knowledge. Based upon Durkheim's (1912/2001) ideas about schooling as socialization and knowledge production through differentiation (i.e., making distinctions that allow to focus on increasingly specific issues), Bernstein examined the patterns of socialization realized through diverse curriculum types. He established that subject-based curricula with strong disciplinary boundaries (i.e., *collected curricula*) promoted fragmented identities and autonomy. However, he also recognized the power of specialized knowledge and, therefore, the importance of introducing youth to this knowledge through collected curricula. He deemed this introduction particularly important for disadvantaged students who did not have access to structured (i.e., discipline-based) knowledge outside of schools (Whitty, 2010).

More recently, Young (2008) reclaimed the importance of discipline-based knowledge against critical and constructivist theorists advocating for integrated curricula (Pinar et al., 1995; White, J.L., 2011). His starting point was that *powerful knowledge* (i.e., knowledge that empowers people) is *specialized* and *differentiated*. It is *specialized* because it is produced by focusing on an object of study and using a specific method. It is *differentiated* because it is produced by abstraction (i.e., conceptual distance) from everyday life. Challenging allegedly progressive ideas around overcoming the subjects as a symbol of old-fashioned schooling, Muller and Young (2019) asserted that advancing social justice entails securing that all students have access to the structured knowledge that will give them access to power.

From the perspective of the above-mentioned theories, the expansion of *San Nicolás* through increasingly larger and more independent departments had consequences that went far beyond the organizational effectiveness of distributed leadership. Departmentalization strengthened specialized teaching and learning, which resulted in high quality performances. This was true in the core subjects, as evidenced by the school's results in standardized tests and the

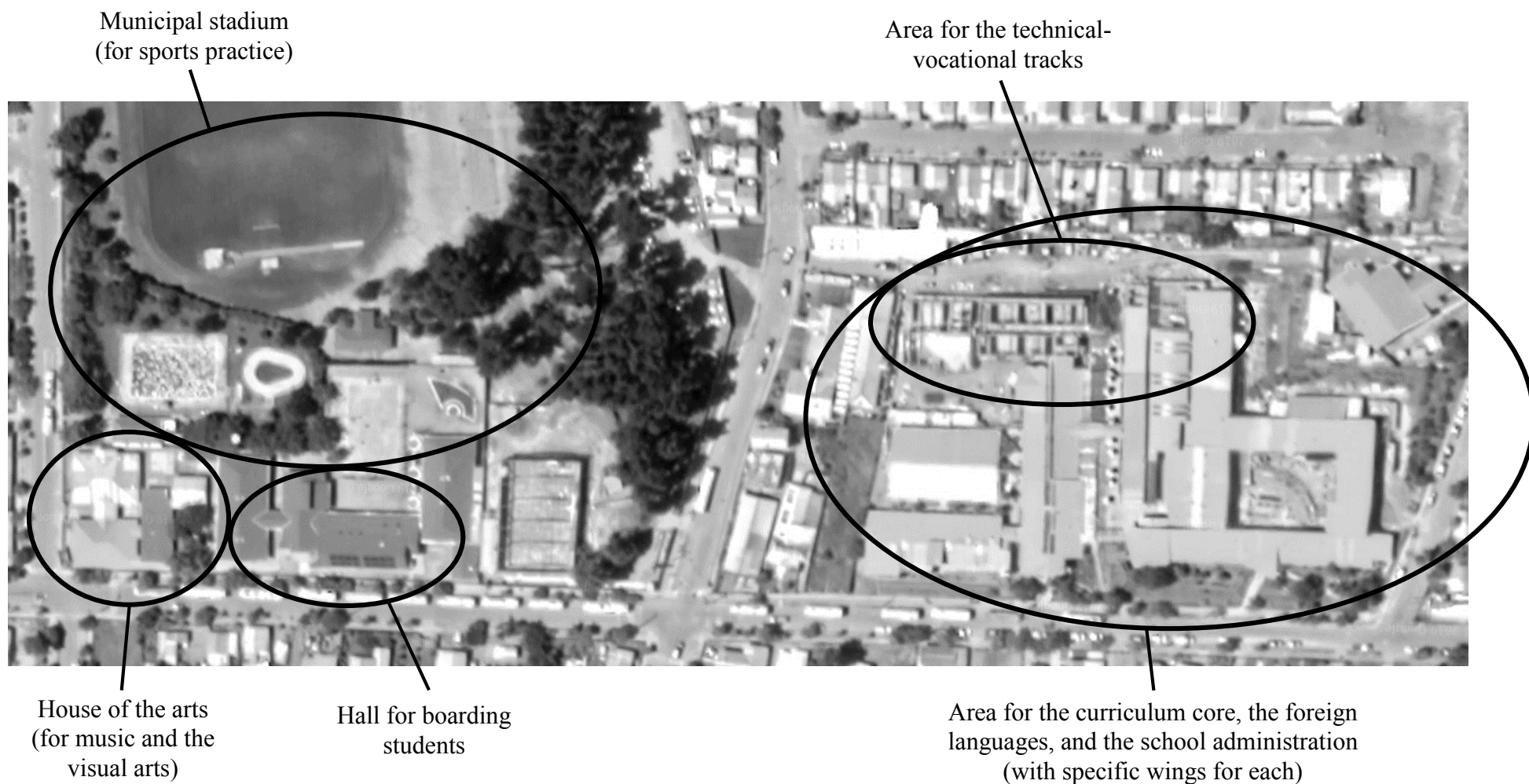
national Science Olympiads, but also in the arts and sports, where the school fostered multiple talents and produced several national champions. From the perspective of the school culture –and student identities– departmentalization promoted the fragmentation and autonomy indicated by Bernstein (1971). In this way, departmentalization, specialized teaching and learning, high performances, and the promotion of autonomy were all related.

This relationship between departmentalization and the collected curriculum is palpable even in *San Nicolás*' architecture. Figure 6.3 shows how the physical spaces correspond to the curriculum in Table 6.4. The central buildings (in the right) are for the four-subject curriculum core, the foreign languages, and the upper high school tracks. The artistic and sports periphery of the curriculum takes place at another block, across the street (in the left of the figure).

The physical distribution in Figure 6.3 also relates to the promotion of autonomy and fragmented identities. Sometime around 2010, *San Nicolás* replaced the traditional Chilean classroom system for a U.S.-like system in which teachers resided in their own classrooms and students moved between them to take their classes.<sup>73</sup> This system matches well with the multiple groupings in the four parts of the curriculum and forces students to move continually between the different areas of the school. In this vein, after my observation of the physical spaces at *San Nicolás* (in December 2017), I wrote in my field notebook: "People circulated through the different areas without a place of their own ... My impression was that this movement generated a certain sense of anonymity that was consistent with the emphases on choice and educating for autonomy." Commenting this reality, a teacher remarked that "students understand how the school works ... They have to come forth and go for what they want."

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<sup>73</sup> As explained in Chapter One (Footnote 16), the Chilean school system is built upon the idea of the *curso* as a community. A *curso* shares the same schedule and "owns" a classroom. Thus, teachers –not students– move between classrooms.



*Figure 6.3.* Aerial map of *San Nicolás* by mid-2018. Source: Google Maps.



All things considered, I propose that *San Nicolás*' model is that of a *university-like high school*. This curriculum (a) combines a compulsory core with four broad areas of choice, (b) fosters excellence through specializations, and (c) invites each student to construct his or her own trajectory (and identity) through his or her choices and the groups with whom he or she connects due to these choices. One student shared that, "Yes, I would present it [*San Nicolás*] as a university ... because we change classrooms, because of the rigor in most classes." Another student added, "We study until very late ... that's why I [also] think that it's like a university."

The proposed conceptualization helps to think about some of the challenges mentioned in the previous sections, such as the challenge of building coherence across departments (Cohen, Spillane, & Peurach, 2018). At the end of the first section, I described how the expansion of *San Nicolás* through departmentalization resulted in innovations that were a myriad of fragmented initiatives within each department's scope of control. I pointed out that, recently, when two teachers proposed a comprehensive revision of the school's study plans, most educators resisted it because it could potentially hurt the school's results (obtained, to a large extent, by encouraging each department to raise its own standards and be proactive to meet them). What the proposed conceptualization suggests is that, unless whole curriculum reshaping takes into account the power of specialized knowledge (i.e., the empowerment that comes from specialized teaching and learning), moving comprehensive initiatives forward will be very difficult.

In this vein, although the complexity of a college or a university is incomparable with the complexity of a high school, Jacobs' (2013) study of interdisciplinarity in higher education yielded lessons that shed light on the above-mentioned challenges at *San Nicolás*. First, the study found that, despite the strong departmentalization, interdisciplinary initiatives were manifold and fairly common. Second, Jacobs showed that most of these initiatives occurred without blurring the boundaries between the disciplines (i.e., between schools and departments). They happened

through dynamic collaborations between specialists whenever this was useful and in all sorts of shapes, ranging from co-taught courses to interdisciplinary research centers or graduate programs. Some educators at *San Nicolás* imagined that interdisciplinarity will move toward subject integrations as in *Dunalastair* (the school-case presented in Chapter Five). The data suggested otherwise: that, as in higher education, interdisciplinarity will probably grow as flexible and dynamic collaborations across departments whenever this is useful or necessary.

In contrast with *Dunalastair*, where innovations were chiefly pedagogical (and curriculum change was pedagogy-driven), change at *San Nicolás* was chiefly curricular. Several school documents offered idealized accounts of teachers' pedagogical methods. For instance, *San Nicolás*' latest PEI asserted that teachers (a) developed 21<sup>st</sup> century skills, (b) used Gardner's (1983) *theory of multiple intelligences*, and (c) implemented a Freirean dialogical education (LBSN, 2015). However, as mentioned in a prior subsection, classroom observations revealed that the instructional methods were not that innovative. They were not old fashioned vertical teaching either, but there was much room for improvement and innovation. Educators who validated this finding reflected things like, "This is our greatest challenge regarding student learning; we need to update our instructional practices" (Teacher).

The proposed conceptualization of the curricular model at *San Nicolás* helps to think that, just as with interdisciplinarity, pedagogical change must take into account the power of specialized knowledge. That is, an "update of the instructional practices" –to use the words of the above-quoted teacher– should consider the specifics of teaching and learning each subject. Most likely, this will entail different pedagogical innovations across the subjects instead of a one-size-fits-all method, as in *Dunalastair*. Rata, McPhail, and Barrett (2019) pointed out that *conceptual progression* (i.e., how the concepts of a discipline relate to or are built upon each other) was key to link each subject and its specific contents with the most appropriate pedagogies.

Some words are warranted on the relationship between the college-bound and the technical-vocational tracks. In the prior sections, I mentioned that the *Bicentennial* introduced a change in students' aspirations related with their choice of upper high school track. According to an administrator quoted, the tacit perception was that students in the college-bound tracks were "smart" and students in the technical-vocational tracks were "lazy." To a large degree, this situation is due to social forces beyond the school's control. However, it also relates to being a comprehensive high school that makes the well-known differences between students in these two types of tracks something internal to the school rather than a difference between neighboring college-bound and technical-vocational schools (Sevilla, 2017).

In this sense, nobody mentioned that *San Nicolás*' comprehensiveness offers extraordinary possibilities for rethinking the relationship between the traditionally segregated college-bound and technical-vocational high school models. On the one hand, this relates to bridging social differences and strengthening democracy. On the other hand, it also relates to the future of learning. One teacher timidly suggested that "the technical-vocational tracks have an enormous pedagogical potential ... They are the best lab to apply many contents studied in the college-bound tracks," only to add, "but nobody has proposed interdisciplinary work between both types of tracks." In this way, how can *San Nicolás* become a laboratory for bridging these two high school models in new and creative ways? Few Chilean high schools have the conditions of *San Nicolás* to explore such curriculum innovation.

From the perspective of *school-based curriculum deliberation*, this chapter's descriptions and conceptualization have unearthed important moral-political options that underlie the school's whole curriculum along with the more visible technical options. At the core of the former options are both the ideal of empowering disempowered students (i.e., generating social mobility) and a bold realism regarding how this is done (e.g., extending the school day, creating an impressive

work ethos, and proposing early specializations). Some of the latter examples tend to be challenged by scholars who are skeptical of a longer school day (Cuban, 2008; Patall, Cooper, & Allen, 2010) or who advocate for more flexible school environments (Collins, 2017). However, *San Nicolás* obtains remarkable results including the town's low achievers and its youth with special needs, and most students (and parents) love it. As said in the beginning of the chapter, *San Nicolás* is complex and both progressive and conservative, depending on what practices one focuses on. All these implicit tensions are dilemmas of a collected curriculum.

Finally, findings for the case confirm that *San Nicolás* has had a *culture of curriculum construction*, i.e., the institutional habit of deliberating about what is worth teaching and why (Pascual, 2001). This is why a teacher reflected that, “What has happened [at *San Nicolás*] is that teachers have recovered their role as intellectuals.” Lately, however, these deliberations are not happening much at the school level, but in the departments. The growth of the school has increased the complexity and has raised the challenge of coherence across departments (Cohen et al., 2018). I posed that the school may find some keys for this new situation by understanding itself as a university-like high school, thus learning from how small colleges and universities have dealt with this challenge. In any case, *San Nicolás* shows that educators who have the resources and relate intelligently with the national curriculum guidelines can reshape the *comprehensive framework of aims and contents for schooling* in new and creative ways.

## CHAPTER SEVEN

### *Guacolda: Dilemmas of Cultural Identity*

This chapter presents the findings for *Guacolda* to understand its curricular model in rich and nuanced ways. Among the three schools studied, *Guacolda* is the case focused on identity, i.e., fostering students' sense of who they are (see Figure 4.2). The school is a publicly-subsidized 9-12 grade technical-vocational Catholic high school directed toward Mapuche people, who are the largest Indigenous group in Chile.<sup>74</sup> This case does not resemble any of the school-case studies on the whole curriculum presented in Chapter Two. As said in the brief presentation of *Guacolda* in Chapter Four, issues of cultural identity have been largely neglected in mainstream debates about educational change and the curriculum (Quintriqueo, 2010).

*Guacolda* is located in the working class town of Cholchol, 18.3 miles away from Temuco, the capital of the Region of Araucanía. This region has the highest concentration of Indigenous people in Chile. Roughly, one-third of the regional population self-identifies as Indigenous, 99% of which are Mapuche (i.e., 318,296 people).<sup>75</sup> Religiously, the region is mostly Christian: 64% of the people are Catholic and 24% are Evangelical.<sup>76</sup> Although Mapuches have their own religion, many identify as Christian, either because they practice both religions, or because they distinguish between their cultural and their religious identities. This makeup of the region and the historical conflict between Mapuches and the Chilean government since the 19<sup>th</sup> century make dialogue a crucial matter for the region.<sup>77</sup>

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<sup>74</sup> According to the latest census (from 2017), 13% of Chileans self-identify as members of some Indigenous group, i.e., around 2.3 million people (<https://resultados.censo2017.cl/>). Mapuches are 79.8% of this population (i.e., around 1.8 million people).

<sup>75</sup> <https://resultados.censo2017.cl/>

<sup>76</sup> <https://reportescomunales.bcn.cl/2015/index.php/Temuco>

<sup>77</sup> A historical account of the conflictive relationship between Mapuches and the Chilean government is beyond the scope of this chapter. For references, go to Bengoa (2012), Cayuqueo (2017), or *Comisión Verdad Histórica y Nuevo Trato* (2003).

Currently, *Guacolda* teaches around 400 students and offers them four upper high school technical-vocational tracks from which to choose. The context is chiefly rural and many students come from poor areas distant from Cholchol, so that 76% of the students are boarding students (LIG, 2012). Linguistically, 7.5% of the 9<sup>th</sup>- and 10<sup>th</sup>-graders in 2013 spoke *Mapudungún* (the Mapuche language), 31% of them understood it but did not speak it, and 61.5% were Spanish monolinguals (Programa EIB, 2013). Religiously, “although the *sostenedor* of the school is the Catholic church, *Guacolda* is open to the diversity of creeds professed by students” (LIG, 2012, p. 15). In fact, the current principal (who is a Catholic Mapuche) shared in a conference that, “around 40% of our students are Evangelicals and, nevertheless, their families opt for this education” (Garrido, F., 2016, p. 52).

*Guacolda* is the leading school in Chile with regards to intercultural education at the high school level (Bascuñán, 2017). As mentioned in Chapter Two, the government’s commitment to culturally-appropriate education for Indigenous peoples is embodied in the *Intercultural Bilingual Education* program (EIB for its Spanish initials). In Araucanía, the EIB’s goals are to (a) promote Mapudungún; (b) include Mapuche traditional educators –who are distinct from certified teachers– in the staff of schools where there are large Mapuche populations; and (c) introduce curricular adaptations in disciplines other than language, such as history. The focus of the EIB has been on PK-8 schools, however, because the law mandates that these schools offer mandatory classes of the corresponding Indigenous language when more than 20% of the students are Indigenous. High schools have not had support for developing a culturally-appropriate education. In this context, *Guacolda* “aims to be a pioneer in constructing an educational alternative for Mapuche adolescents” (Vidal et al., 1991, p. 210).

In a nutshell, the case is how *Guacolda* constructed a culturally-appropriate curriculum for Mapuche people over 34 years, in spite of several conflicts and obstacles. Some of the difficulties

have been external to the school, such as the changing political and policy contexts, but many of them have been internal, such as differences among educators regarding the school's emphases, or discrepancies with parents' expectations for their children's education. I titled the chapter *Dilemmas of Cultural Identity* because the case shows both the beauty and the challenges of integrating cultural identity into the curriculum.

Like Chapters Five and Six, this chapter has three sections. First, I describe the continuous curriculum reshaping since the school's start in 1984. Second, I present *Guacolda's* curriculum as aiming to institutionalize a dialogue between the Western and the Mapuche cultures. Finally, I conceptualize this high school model as doubly countercultural because (a) it fully integrates a non-dominant (i.e., the Mapuche) culture into the curriculum and (b) it assumes an inherently religious understanding of the culture. As in the previous chapters, the first two sections are more descriptive than the third one, where I discuss and theorize the school model.

### **Thirty-Four Years Developing a Culturally-Appropriate Curriculum Against the Grain**

Different than at either *Dunalastair* or *San Nicolás*, where interviewees identified a milestone from which their school began to reshape the curriculum, the data indicated that *Guacolda* innovated steadily since its beginning in 1984. The school was founded by *Fundación Instituto Indígena*, a non-profit led by the Catholic bishop of Temuco, to offer culturally-appropriate education to female Mapuches from rural areas of the region. This initial focus on females was because, back then, other institutions were launching similar projects for males.

When asked about the evolution of the school curriculum, all interviewees with more than 15 years at *Guacolda* mentioned the *Montegrando* –which spanned from 1998 to 2004– as central to the school's curriculum reshaping.<sup>78</sup> One administrator stated that, “Before the *Montegrando*,

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<sup>78</sup> The *Montegrando* was a national project on high school innovation that supported 51 high schools to become models of innovation for the rest of the school system. *Guacolda* was one

the school was a social work of the Catholic church that sought to give opportunities to young Mapuches.” Nevertheless, many aspects of the school’s current curriculum were already in place in 1998. What occurred between 1998 and 2004 was that the school embraced the intercultural paradigm, which gave coherence to the whole project. Another administrator commented that, “Around 2000, we had isolated innovations ... but the educational project was not there ... That was the time when we began to write it down and we adopted the idea of intercultural education.” This paradigm, which I describe later, helped to conceptualize what was done during the first 14 years and fine-tune aspects of the project. *Guacolda*’s first *institutional educational project* (PEI for its Spanish initials) dates from this period. Also, the person who was principal since 1985 stepped down at the end of the *Monte grande*, so 2005 marked the beginning of another stage.

Most of the interview and document data coincided with the above-mentioned elements, so I submit that the school’s curriculum reshaping could be broken into three stages:

1. From 1984 to 1997, the school developed the foundations of its innovative curriculum.
2. From 1998 to 2004, the school participated in the *Monte grande*, deepening the underlying principles of the educational project and embracing interculturalism.
3. Since 2005, *Guacolda* has wrestled with the tensions inherent to the intercultural paradigm in an increasingly polarized and achievement-focused context. Polarization grew with the scaling of the conflict between Mapuches and the Chilean government (at the national level). The focus on achievement grew due to the government’s concern for academic standards after the 2006 and 2011 student protests.

Figure 7.1 illustrates this evolution of the curriculum, in parallel with major events in the life of the school –such as changes of school leadership– that situate the changes in the curriculum.

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of these 51 schools. For more details, see section *The History of Chilean Policies on High School Curriculum Innovation* in Chapter Two.



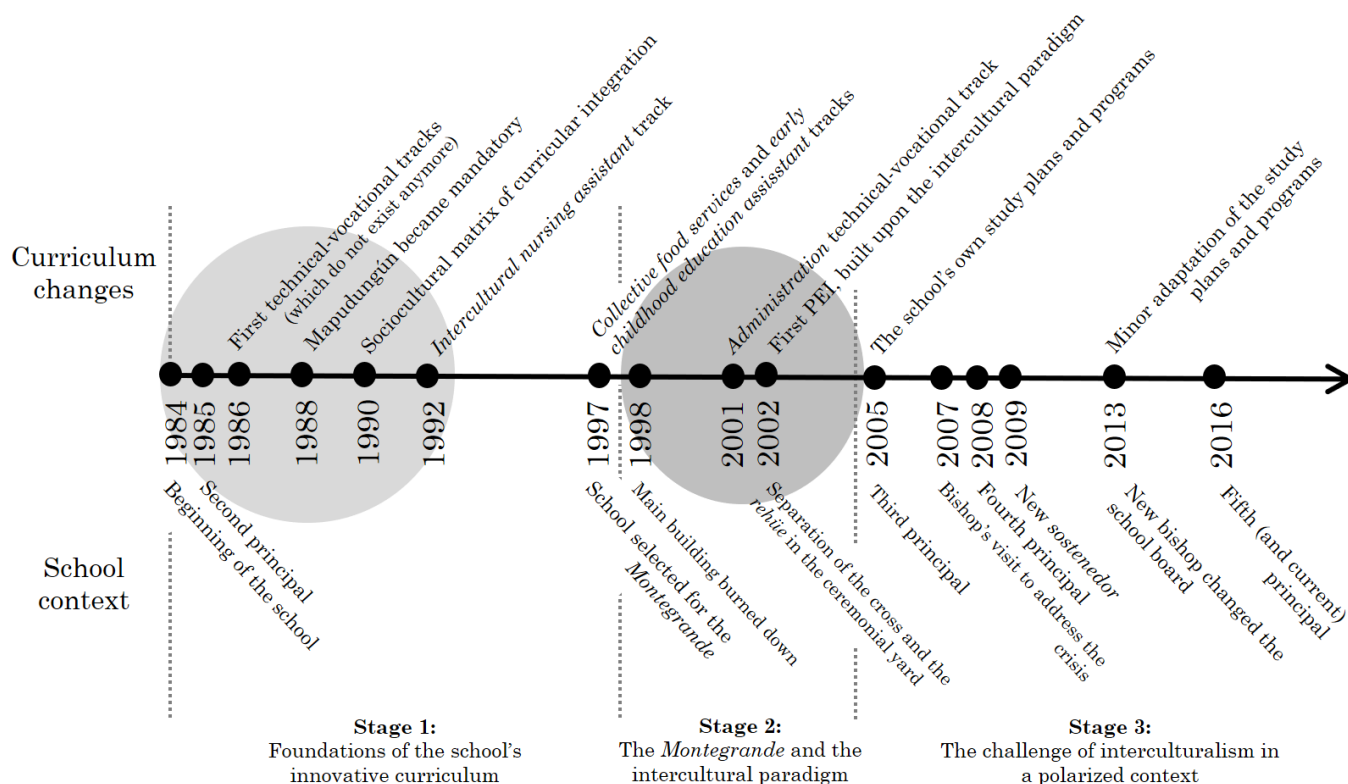


Figure 7.1. Timeline of *Guacolda*'s curriculum evolution since 1984.

The circles in Figure 7.1 represent the two curriculum deliberations underlying the three-stage process of curriculum reshaping. First, there was an option to create a culturally-appropriate (and revitalizing) curriculum, even against the wishes of many parents and students who just wanted an education that assured social mobility. The following sections say more about this contrast of aspirations. Second, *Guacolda* embraced the intercultural paradigm, which had direct consequences for the institutionalization of the dialogue between the Western and the Mapuche cultures in the curriculum. The next subsections present the three stages of curriculum reshaping and how the two deliberations shaped these stages.

**Foundations of the school's innovative curriculum (1984-1997).** *Guacolda* welcomed 9<sup>th</sup>-graders in 1984. The next year, when the school grew to have 9<sup>th</sup>- and 10<sup>th</sup>-graders (as the first cohort moved up), a new principal took office. Some interviewees referred to this second principal as the “founder” because she led the school for 20 years, from 1985 to 2004.

The first important curriculum innovations were the first two technical-vocational tracks that the school created when students moved from 10<sup>th</sup> to 11<sup>th</sup> grade in 1986. One of these tracks was *Mapuche crafts*. According to Vidal et al.'s (1991) paper on the initial innovations at *Guacolda*, "through the creation of this track, the school intend[ed] ... to contribute to the attainment of one of the institution's main objectives ... which [was] to foster love for the Mapuche culture and promote these girls' identity" (p. 202). The other track, *clothing manufacture*, was created because parents pushed for it. They wanted a trade that prepared their daughters for a job in the city. In this sense, when Caniuqueo and Durán (1990) described these first efforts at reshaping the curriculum, they reflected that

One of the first obstacles faced by those who designed the school was ... that their idealism regarding the preservation of Mapuche culture was not shared by the school population ... That is, the designers of the school project had to acknowledge the distance between their academic vision of the future of Mapuche people and the pragmatic aspirations of the students and their families. (p. 14)

In 1988, studying Mapudungún became mandatory. The subject was introduced in 1985, but for three years it was only an elective. With the support of linguists from *Universidad Católica de Temuco* (Durán, Loncón, & Ramos, 1989), the school required students to take two weekly 45-minute class periods. These scholars helped to distinguish between (a) active Spanish-Mapudungún bilinguals; (b) passive bilinguals (who understood Mapudungún, but did not speak it); and (c) Spanish monolinguals. These distinctions helped to introduce the subject. Documents from this period indicated that a transversal problem, though, was the lack of a method for teaching Mapudungún (Vidal et al., 1991). Each teacher did what he or she could.

Three important innovations occurred during 1989. First, the Ministry of Education (MINEDUC) authorized *Guacolda* to require four weekly periods of Mapudungún (i.e., the

subject doubled its time allotment). Second, the school introduced personalized learning in all subjects. At that time, this innovation consisted –basically– in handing learning guides to the students and letting them work at their own pace (with the teacher taking the role of a coach). According to Caniuqueo and Durán (1990), “this effort aimed to overcome traditional instruction methods that hindered the development of students’ personality” (p. 15). I asked for further details on this pedagogical change, but none of the interviewees worked at the school that year and this innovation was discontinued around 2002. Third, an internal assessment showed that teachers did not integrate Mapuche cultural contents into their subjects (Caniuqueo & Durán, 1990). To help them do it, the school developed the *sociocultural matrix of curricular integration* in Table 7.1. This matrix identified 10 overarching areas where there were conflicts between the Western and the Mapuche visions of the world. The idea was that teachers should address these conflicts whenever the content of a class allowed them to do it.

What did teachers do with this matrix? According to document data, they used it as a reference when coaching student progress with the learning guides in their respective subjects. From a research perspective, however, Caniuqueo and Durán (1990) reported that

The students perceived that all the teachers taught them the same thing ... On a more general level, there was also evidence that both Mapuche and non-Mapuche teachers had very poor knowledge of the Mapuche culture ... Therefore, it was very difficult to implement the changes designed. (p. 23)

The introduction of this matrix also revealed that several teachers believed that a project that emphasized too much the preservation of the Mapuche culture would further marginalize students from scientific and technological progress (Caniuqueo & Durán, 1990). This issue has continued to be a systematic challenge at *Guacolda* throughout its history.

Table 7.1

*Guacolda's 1989 sociocultural matrix of curricular integration*

	Overarching area	Topics of the Western culture	Topics of the Mapuche culture	Conflicting issues
1	Humankind and a higher power	<ul style="list-style-type: none"> <li>- Divine creation (the Genesis).</li> <li>- Humans created in God's image.</li> </ul>	<ul style="list-style-type: none"> <li>- Mapuche religion.</li> <li>- Beliefs, practices, priestly figures, and ceremonies.</li> </ul>	<ul style="list-style-type: none"> <li>- Traditional Christian evangelization.</li> <li>- Disconnect between people and God.</li> </ul>
2	Humankind and the earth	<ul style="list-style-type: none"> <li>- The universe, the planet, and the distribution of continents and its resources.</li> </ul>	<ul style="list-style-type: none"> <li>- Mapuche territory and classification of natural resources.</li> <li>- Human settlements.</li> </ul>	<ul style="list-style-type: none"> <li>- Overexploitation of natural resources.</li> <li>- Locally produced crafts versus industrial production.</li> </ul>
3	Communication systems	<ul style="list-style-type: none"> <li>- The evolution of human language.</li> <li>- European languages: Spanish and English.</li> </ul>	<ul style="list-style-type: none"> <li>- Non-linguistic communication systems.</li> <li>- Mapudungún.</li> </ul>	<ul style="list-style-type: none"> <li>- The conflictive relationship between Spanish and Mapudungún.</li> </ul>
4	Human organizations	<ul style="list-style-type: none"> <li>- The idea of a State.</li> <li>- Human rights and the UN.</li> </ul>	<ul style="list-style-type: none"> <li>- Mapuche traditional organizations –such as the family– and customary law.</li> </ul>	<ul style="list-style-type: none"> <li>- Mapuche identity and the modern professions.</li> <li>- Mapuche organizations in urban areas.</li> </ul>
5	Time and space	<ul style="list-style-type: none"> <li>- The origins of the continent and its geographical features.</li> <li>- Key phases of world and Chilean history.</li> </ul>	<ul style="list-style-type: none"> <li>- The Mapuche perspective of the 'official history.'</li> </ul>	<ul style="list-style-type: none"> <li>- Ethnocentric history.</li> <li>- Colonization and unjust distribution of the Mapuche territory.</li> </ul>
6	The human body	<ul style="list-style-type: none"> <li>- Biological systems.</li> <li>- Contributions of modern medicine.</li> </ul>	<ul style="list-style-type: none"> <li>- Mapuche knowledge of the human body.</li> <li>- Herbal medicine.</li> </ul>	<ul style="list-style-type: none"> <li>- Diseases according to each culture.</li> <li>- Types of food and their effects on health.</li> </ul>
7	Systems of measurement, observation, and calculation	<ul style="list-style-type: none"> <li>- Mathematics.</li> <li>- Arithmetic operations, geometry, and algebra.</li> </ul>	<ul style="list-style-type: none"> <li>- Mapuche systems of measurement and observation.</li> </ul>	<ul style="list-style-type: none"> <li>- Ignorance and disdain for Indigenous numbering and measurement systems.</li> </ul>
8	Economic systems	<ul style="list-style-type: none"> <li>- Capitalism and the law of demand and supply.</li> <li>- Production, marketing, and trade.</li> </ul>	<ul style="list-style-type: none"> <li>- Mapuche traditional and contemporary economy.</li> </ul>	<ul style="list-style-type: none"> <li>- Economic policies, human rights, and the person.</li> <li>- Poverty and inequality in the distribution of resources.</li> </ul>
9	The human person	<ul style="list-style-type: none"> <li>- Christian idea of the person.</li> <li>- Universal human rights.</li> </ul>	<ul style="list-style-type: none"> <li>- Mapuche idea of the person.</li> <li>- Dimensions of the Mapuche person.</li> </ul>	<ul style="list-style-type: none"> <li>- De-personalization induced by the professions.</li> <li>- Psychological problems derived from Mapuche identity denial.</li> </ul>
10	Technology	<ul style="list-style-type: none"> <li>- Western society's technological advances in different fields.</li> </ul>	<ul style="list-style-type: none"> <li>- Traditional tools.</li> <li>- Mapuche techniques for transforming natural resources.</li> </ul>	<ul style="list-style-type: none"> <li>- Fashion as a social phenomenon.</li> <li>- Overestimation of techniques and technology.</li> <li>- Need for a deeper appreciation of the natural resources.</li> </ul>

Source: Caniuqueo and Durán (1990, pp. 19-20).

The most relevant curriculum change during 1991-1997 was the re-design of the technical-vocational tracks. In 1992, the school created the track *intercultural nursing assistant* to prepare bilingual assistants for rural hospitals where personnel did not know how to deal with Mapuche elders who did not speak Spanish. With the opening of this track, *Guacolda* welcomed the first male students and became co-educational. In 1997, the school created two new tracks: *collective food services* and *early childhood education assistant*. The three tracks included specifically Mapuche subjects (explained later) in addition to the specialized courses required by the MINEDUC. An administrator shared that “these tracks that we offer ... weren’t random choices. They were implemented to help the Mapuche people, especially *intercultural nursing assistant* and *early childhood education assistant*.” This administrator’s point was that the new tracks combined an opportunity of future employment with meeting a perceived need of the Mapuche people in the region. The two original tracks were discontinued because they did not align with the latter purpose of meeting a need of the Mapuche people in the region.

Collecting data about this first stage was not easy and *Guacolda* did not yet have a PEI that fleshed out its educational project. However, in 14 years, the school had become a co-educational high school that offered various vocational tracks to prepare students for jobs that met regional needs of the Mapuche people (e.g., in rural hospitals or preschools). The work with *Universidad Católica de Temuco* on how to teach Mapudungún at the high school level generated the first research that exists on the matter (Durán et al., 1989; Ramos, 1989).

**The *Montegrande* and the intercultural paradigm (1998-2004).** The aforementioned innovations determined that, at the end of 1997, *Guacolda* was selected to be a *Montegrande School*. As explained in Chapter Two, this meant receiving government support to further develop the educational project so it would become a model for the whole publicly-funded high school system in Chile. This subsection describes what happened during these seven years.

Not much curriculum reshaping occurred during 1998-1999 because all the energy had to focus on reconstructing the school building after an accidental fire in 1998 burned it all down. The new –and current– building was inaugurated in 2000 with classrooms designed as Mapuche meeting spaces, which are circular and have windows facing to the East (i.e., to the sunrise). Figure 7.2 shows this building and the inside of one of the classrooms.



Figure 7.2. The school building and a classroom at *Guacolda*. Source: My own pictures.

In this new setting and having welcomed several new Mapuche teachers who became central for this second stage of curriculum reshaping –for instance, a *machi*–<sup>79</sup> educators resumed deliberations about *Guacolda*’s educational project. An administrator recalled that,

[The *Montegrande*] pointed to systematize what we had done before, but we began to work on interculturalism ... because at that time, until around 2000, there was a lot of syncretism. We went to Catholic mass with *trutruca* and *cultrún* [Mapuche instruments], and things like that ... So, we had day-long sessions among educators ... and we arrived at a better understanding of what was best for the school project.

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<sup>79</sup> A *machi* is a Mapuche healer, who also performs the role of a priest because, in the Mapuche culture, the material and the spiritual realms are intrinsically connected. This *machi* was hired to teach Mapuche traditional medicine in the *intercultural nursing assistant* track.

Some of the new Mapuche teachers began to question the mix of Catholicism and Mapuche culture (i.e., the syncretism) that had developed at *Guacolda*. They asked for a clearer distinction between the cultures, which they deemed essential to preserve the Mapuche culture. In this vein, a teacher also remembered that, “We began to talk about the aspiration of being more Mapuche and less Catholic ... We began to talk more explicitly about cultural revitalization.”

During 2000-2002, *Guacolda* embraced interculturalism. As two educators explained, teacher talks –often joined by some scholar from Temuco– led to the realization that cultures can relate in three ways within a plural context: (a) *syncretism*, (b) *multiculturalism*, or (c) *interculturalism* (Kymlicka, 1995; López, L.E., 2009). *Syncretism* means weak boundaries between the cultures that typically lead to blending. *Multiculturalism* means strong boundaries that lead to segregation. *Interculturalism* means clear, but porous boundaries that allow for dialogue. Teachers realized that *syncretism* and *multiculturalism* entail the risk of one culture dominating over the other(s) through assimilation or marginalization. *Interculturalism* aims at a symmetric relationship. Recalling this deliberation, a teacher commented that,

We have managed to coexist [Mapuches and non-Mapuches] thanks to the academic concept of *interculturalism*. This concept calls for respect, tolerance, and accepting the other group’s vision ... even at the deepest level, which has to do with our religious vision.

This deliberation had many curricular consequences over time, and the following section presents some of them. Historically, however, “I think that the separation of the cross and the *rehüe* was the start.”<sup>80</sup> That was when we officially said, ‘These two things [the cultures] can coexist without confusion’” (Administrator). This quote refers to an event from 2002. Figure 7.3 shows the school’s ceremonial yard in 2000, with the cross and the *rehüe* by each other. In 2002,

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<sup>80</sup> A *rehüe* is a Mapuche totem. Religious ceremonies are celebrated around a *rehüe*.

as the administrator recalled, the cross was moved to another space, signaling the school's shift from *syncretism* to *interculturalism*. Today, the school has two separate worship spaces.



*Figure 7.3.* The school's ceremonial yard in 2000. Source: The school archives.

In 2002, the school issued its first PEI. In a report to the MINEDUC, the principal who came to *Guacolda* after the end of the *Montegrande* informed that this PEI was developed by the administration team. However, “teachers participated in instances of discussion about the concept of interculturalism ... which included a revision of many institutional guidelines” (LIG, 2007, p. 3). This definition of interculturalism stayed the same in subsequent updates of the school's PEI: Interculturalism is “the form of social relationship in which people or groups from two or more cultures recognize and accept each other, based on openness, knowledge, appreciation and mutual respect” (LIG, 2012, p.19).

In parallel with the process of deepening the concepts underlying the school project, the *Montegrande* encouraged the school to analyze student learning and improve academic results. This focus on academics was very different from the broader deliberation about the school's educational project. Still, these two concerns ended up complementing each other for reasons of social justice. One administrator commented, “A critique that I had ... at that time, was that [the



school] was somewhat conformist with students' low academic achievement ... We did not have students who could read a whole book ... It was sad." Another one added,

Obviously, results did not allow anyone to get to college. Students were well prepared to become labor ... well disciplined ... but not to pursue a higher education ... And some wanted to go to college, but they didn't have the training ... These students had little power and we had to empower them. Offering them knowledge was empowering them. Consequently, "Around 2002 ... we began to set higher goals. We wanted to prepare students for college ... so we began to ask them for more, we raised our standards" (Administrator).

The most direct consequence of analyzing student learning was to cut down the strategy of personalized learning with learning guides in place since 1989. As an administrator remembered, "We raised tough questions ... from a pedagogical point of view. For instance, was this strategy producing results?" Another administrator recalled thinking that the strategy was counterproductive: "Given students' low level of reading comprehension ... and their desire to listen and talk ... because Mapuches are essentially oral, ... Why were we asking them to write and work individually like that?" The major decision, after all the discussions, was to give teachers greater pedagogical autonomy. A third administrator remembered, "From then on, there was freedom to use any pedagogical method." Thus, *Guacolda* moved from personalized learning with guides in all subjects to an array of pedagogies across subjects and grade-levels. All educators participated in these discussions and decisions were made by the administrators. The *Monte grande* did not involve external prescriptions other than using the resources for the specific purposes that they had been petitioned in the school's application to the program.

In 2004, *Guacolda* presented new study programs and plans to the MINEDUC for their official approval. These programs and plans were developed in response to the 1998 curriculum reform that encouraged all Chilean schools to align the work of teachers with the school's PEI.

Aside from the 2002 PEI, the other basis for these new programs and plans was the sociocultural matrix of curricular integration from 1989 (Table 7.1). The MINEDUC rejected these programs and plans, however. When I asked to an administrator why, the answer was straightforward: “The matrix was too complex and the Ministry didn’t understand what we did.” This misunderstanding related to format issues that were solved by the principal who arrived to the school the next year.

In spite of the 2004 rejection of the new programs and plans, the MINEDUC (2004) considered *Guacolda* as one of the 15 *Montegrande* schools –out of 51– that attained the goal of offering an innovative model for the high school system. At the end of this stage, and after having reconstructed the school building, the school had taken the innovations of the first stage to a new level. The intercultural paradigm gave coherence to the whole project. Also, in 2001, the school created the technical-vocational track *administration*, completing the current four-track offering. The reason for opening this fourth track was that regional public services needed bilingual youth to help with Mapudungún-only speakers who used these services.

**The challenge of interculturalism in a polarized context (since 2005).** Figure 7.1 indicates that many things happened after the end of the *Montegrande*. *Guacolda*’s second principal stepped down after 20 years and there were three other principals. From the perspective of the curriculum, however, not much occurred. Most interview data indicated that the core issue during this stage was practicing intercultural dialogue in an increasingly polarized context. The scaling of the conflict between Mapuches and the Chilean government made it very challenging.<sup>81</sup> This subsection describes briefly what occurred during these years.

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<sup>81</sup> As mentioned in the beginning of the chapter, the relationship between Mapuches and the Chilean government has been conflictive since the 19<sup>th</sup> century (Bengoa, 2012; Cayuqueo, 2017). During the dictatorship (1973-1989), this conflict was kept at bay by the military, but it reemerged with the country’s return to democracy in 1990. Mapuche demands include the return of lands to the Mapuche communities (as collective property) and, perhaps more

The latest substantial curriculum change at *Guacolda* was the 2005 approval of the programs and plans that had been rejected in 2004. To this end, the new principal adapted what had been presented in 2004 to the official MINEDUC formats, dropping the sociocultural matrix of curricular integration. This is why “the sociocultural matrix is no longer in use ... That ended in 2005” (Administrator). Two key aspects of these new plans were (a) the introduction of two weekly class periods of *digital literacy* in grades 9-10, and (b) the formalization of various courses on aspects of the Mapuche culture in the four technical-vocational tracks (e.g., the course on Mapuche traditional medicine in the *intercultural nursing assistant* track).

This new principal did not last for long, though. As an administrator put it, “The man certainly had many technical skills, but he wondered if the Mapuche ceremonies were necessary. He didn’t quite understand what we were doing here.” A teacher reflected, “The [underlying] question was if the school was going to remain Catholic or not. Because, if it was, some elements of Catholicism had to be more central. That’s why they [*Fundación Instituto Indígena*, the *sostenedor*] brought him in [as principal].” In a nutshell, teachers and administrators indicated that, over the years, the option for interculturalism led to difficult questions regarding the school’s identity. Was *Guacolda* going to be just a Mapuche school, or would it combine the Mapuche and the Catholic worldviews under the intercultural paradigm?

Tensions escalated until 2007, which several interviewees deemed as a year of crisis. One teacher commented that, “2007 was a milestone. It marked a before and after ... Many [educators] left, some voluntarily and others were fired.” Another teacher recalled that

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importantly, a recognition of the Indigenous peoples in the Chilean Constitution (which would entail several linguistic, cultural, and political consequences).

In 2002, the killing of 17-year-old Alex Lemún by the police marked a critical point in the conflict. Since 2003, Mapuches celebrate the *Day of the Mapuche Student* on November 12<sup>th</sup> to remember Lemún’s assassination. Another recent high point in the conflict was the 2010 hunger strike by 34 Mapuche prisoners protesting the State’s violence against Mapuches.

There was a time in which Mapuche culture was the most important thing. At another time, the most important thing was what came from the Catholic world ... There were two distinct groups [of educators] ... Although, there were actually three groups ... There was another group of teachers who just came to teach their classes and didn't care for the rest ... And the school became very polarized ... It was tough.

This situation ended in a three-day visit by the Catholic bishop to the school. He wanted to hear everyone to understand the crisis and help to solve it. At the end of this year, he fired the principal for not having the skills needed to lead an intercultural project like *Guacolda*.

The following principal led the school from 2008 to 2015 and, according to several interviewees, she helped to build the type of internal dialogue that was needed to live out the intercultural ideal. An administrator shared that, "I think that once she arrived, we really began to grow in articulating the intercultural project." A teacher added that

She was an older teacher who knew little about the Mapuche culture, but learned about it. She came from the Catholic world, so she had that part with her. She was very systematic at telling us: 'Do your work, but do not forget that this is a Catholic school' ... Also, she always told us that we had to train professionals who were proud of their culture ... With her, we [the educators] began to be more or less in the same page.

Another consequence of the bishop's visit in 2007 was that, in 2009, the *sostenedor* of the school changed. The non-profit *Fundación Instituto Indígena* was not specifically educational. It managed diverse Catholic programs in various areas of social service. The bishop realized that the school needed a *sostenedor* specifically concerned for educational matters, with the appropriate training, so he created a new foundation that took over *Guacolda*. An administrator explained that, "To deepen intercultural education, we needed a specifically educational

foundation. This is why *Fundación Beato Ceferino* –which is our current *sostenedor*– was created ... To deepen the educational project and spread it out.”

In 2013, the bishop changed and, with this change, the relationship of the Catholic church with the school changed as well. The new bishop replaced most members of the school board with scholars and business people, who are on the current board. According to an administrator, they do not understand *Guacolda*’s educational project; “They find it nice, but they haven’t seriously thought about intercultural education.” Also, in the face of increasingly tense relationships between Mapuches and the Chilean government, the board returned to the concern of years 2005-2007 about the space for Christianity in the school.

Following the MINEDUC’s adjustment of the national curriculum frameworks in 2013, *Guacolda* adapted its own study programs and plans. However, as mentioned, changes were fairly minor. A comparison between the 2005 and the 2013 study plans indicated that the time allotted to the subjects remained the same in grades 9-10. In 11<sup>th</sup> grade, the change was that two class periods from the curriculum core that in 2005 were allotted to extra track-related specialized courses were allotted back to math and history. In 12<sup>th</sup> grade, the change was that four class periods were allotted back from track-related specialized courses to the curriculum core (two periods to math, one to language and literature, and one to history). This adaptation was minor, yet it reflected the new school board’s concern about students’ low academic achievement in the core subjects. For instance, in 2013, 67.4% of the 10<sup>th</sup>-graders “fail[ed] to demonstrate ... that they ha[d] acquired the elementary knowledge and skills stipulated in the curriculum for that grade-level [in reading comprehension]” (Agencia Calidad, 2016, p. 17).<sup>82</sup>

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<sup>82</sup> In Chapter Four, when describing the case selection, I mentioned that “I excluded schools that the Quality Agency categorized as insufficient or lower-middle achievers.” *Guacolda* was categorized as middle achiever (Agencia Calidad, 2016). In part, this categorization was because the final score was adjusted by context, i.e., *Guacolda* was a middle achiever in

The current principal, who was appointed at the end of 2015, is *Guacolda*'s first Mapuche principal. The board mandated him to (a) raise the school's academic performance and (b) work on Mapuche-Christian relationships. The latter point was because the school board had the impression that, despite the majority of self-reported Catholics and Evangelicals (both in the region and at the school), the broader political atmosphere forced Mapuche students to abandon (or hide) their Christianity. When I conducted the fieldwork for this study in early 2018, I encountered a mix of the tensions and challenges described in this last subsection. I return to them in the last section of the chapter, after presenting the school's current curriculum.

### **Mapuche and Western Cultures in Dialogue: A Binary Intercultural Curriculum**

In this second section, I describe the whole curriculum that resulted of the 34-year trajectory described. This curriculum has two cross-curricular principles. First, *Guacolda* aims to strengthen students' self-esteem by teaching them to feel proud of who they are. Several data sources evidenced this transversal principle. In a parent day that I observed, the principal told to around 200 parents that the school "seeks to rescue those young Mapuches who, as a result of the dominant culture's prejudices, tend to feel discriminated ... The school seeks that they become proud of who they are." Along the same lines, an administrator shared that,

The idea is that students identify themselves with who they are, not that they want to be somebody else. For this reason, when we see a student who arrived with a low self-esteem, who did not accept his Mapuche identity ... and he [or she] leaves [the school] proud of his [or her] culture ... we feel like we are educating the youth of the future.

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comparison with other schools from working class towns with important Indigenous populations. Also, this categorization gave a 67% weigh to academic achievement and a 33% weigh to indicators of personal and social development on which *Guacolda* was a very high achiever. The following section expands on the school culture that produced such positive results on the non-academic indicators.

A good summary of this principle was the 2012-2015 PEI's explanation that the school had an emphasis on fostering Mapuche identity because "Mapuches have suffered a strong process of acculturation ... and valuing one's own identity is directly related to the development of self-esteem as a basis for any successful education" (LIG, 2012, p. 19).

The second principle transversal to the whole curriculum since 2000 is offering an intercultural education. This is an education that endeavors to prepare students for deep-level dialogues that draw upon personal histories, identities, and beliefs. An administrator shared that,

We have to ensure that students learn the skills and competences of their [Mapuche] culture and, at the same time, the skills and competencies in the national curriculum. This way, students will be able to relate well in both contexts, without losing their identity.

Another administrator commented that, "We have always been honest about the fact that we aren't a bilingual school ... Bilingualism would mean giving both languages [Mapudungún and Spanish] the same importance ... and we don't ... But, we are definitively intercultural!"

This second section has four subsections that show how *Guacolda*'s curriculum implements these two major principles. First, I present and analyze the school's study plans. Second, I unpack three ways in which Mapuche culture is integrated into the curriculum. Third, I describe the school's culture of trust that facilitates dialogues about identity. Fourth, I discuss the tensions between the school's emphasis on cultural identity and the academic goals of schooling.

**Study plans: Slightly more curriculum periphery and Mapudungún.** Table 7.2 has a comparison between the school's study plans and the MINEDUC's optional plans. The right column indicates that –in contrast with *Dunalastair* and *San Nicolás*– *Guacolda* does more or less what the MINEDUC suggests. It teaches 42 weekly class periods (not more), and the time allotted to the curriculum core is 44.6% of the school week (i.e., 18.75 periods), which is about the same as indicated by the MINEDUC for technical-vocational high schools.

Table 7.2

*Number of 45-minute weekly periods allotted to each subject at Guacolda compared with MINEDUC's national plans*

Subject	9 <sup>th</sup> and 10 <sup>th</sup> grades			11 <sup>th</sup> and 12 <sup>th</sup> grades (technical-vocational)			Average 9-12 periods at <i>Guacolda</i>	Average 9-12 Diff
	MINEDUC	<i>Guacolda</i>		MINEDUC	<i>Guacolda</i>			
	Periods	Periods	Diff	Periods	Periods	Diff		
Mathematics	7	6	-1	3	3/4*	+0.5	4.75	-0.25
Language and literature	6	6	0	3	3/4*	+0.5	4.75	+0.25
Natural sciences	6	6	0	-	-	-	3	0
History, geography, and social sciences	4	4	0	4	3	-1	3.5	-0.50
Foreign language: English	4	3/4*	-0.5	2	2	0	2.75	-0.25
Curriculum core	27	25.5	-1.5	12	12	0	18.75	-0.75
Art and/or music	2	2	0	-	-	-	1	0
Religious education	2	2	0	2	2	0	2	0
Physical education and health	2	2	0	0	2	+2	2	+1
Technology	2	2	0	-	-	-	1	0
Counseling or <i>curso</i> council	1	2	+1	0	1	+1	1.5	+1
Curriculum periphery	9	10	+1	2	5	+3	7.5	+2
Mapudungún	0	5/4*	+4.5	0	2	+2	3.25	+3.25
Digital literacy	0	2	+2	-	-	-	1	+1
Track-related specialized courses	-	-	-	22	24/22*	+1	11.5	+0.5
Class periods of free disposal	6	0	-6	6	0	-6	0	-6
Differentiated plan	6	6.5	+0.5	28	25	-3	15.75	-1.25
Total of weekly periods	42	42	0	42	42	0	42	0

Source: My analysis of the school's study plans and the school schedule.

(\*) The weekly periods are different in 9<sup>th</sup>/10<sup>th</sup> or 11<sup>th</sup>/12<sup>th</sup> grades. Calculations assume the average.

According to these study plans, *Guacolda*'s curriculum has two particular features. First, the school has a slightly augmented curriculum periphery. All levels have one extra period of counseling or *curso* council (the time when each *curso* meets with the *profesor jefe*) and 11<sup>th</sup>- and 12<sup>th</sup>-graders have physical education, which is not a requirement in technical-vocational upper high school tracks. Second, and perhaps more importantly, *Guacolda* uses the class periods of free disposal uniquely. Most of this time is spent on Mapudungún, which has a larger time



allotment than natural sciences, and grades 9-10 have two weekly class periods of digital literacy. Since most students do not have access to a computer at home, this subject helps them to develop basic computational skills such as knowing how to use Microsoft Office. A course like this meets most parents' wish for vocational education.

This brief analysis of the study plans indicates that, just like at *Dunalastair*, knowing the time allotted to each subject is not enough to grasp important features of *Guacolda*'s curriculum. Many of these features occur within the regular subjects or in unique track-related specialized courses in grades 11-12.<sup>83</sup> Thus, the following subsection describes what is taught in the subjects and other mandatory activities that the school requires in addition to the regular subjects.

**A three-fold integration of Mapuche culture into the curriculum.** The study programs for each subject and interview data revealed that the school integrates Mapuche culture (and the intercultural goal) differently in three broad areas of the curriculum.

1. *Specifically Mapuche subjects.* Here, the integration is direct and explicit. These subjects are Mapudungún and seven track-related specialized courses in grades 11-12.
2. *The traditional subjects.* Here, the integration of Mapuche culture and interculturalism is easier in some subjects (e.g., history) than in others (e.g., mathematics).
3. *Activities that go beyond the study plans* (i.e., beyond the regular schedule). These include Mapuche and Catholic ceremonies and activities in which all students and educators are required to participate, and extracurriculars.

This subsection describes each of these three areas and how they integrate (or, in some cases, struggle at integrating) the Mapuche culture and the goal of preparing for dialogue.

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<sup>83</sup> The national curriculum framework for the upper high school technical-vocational tracks contains guidelines about what should be taught during the 22 weekly periods of *track-related specialized courses* in each track (see Table 7.2). *Guacolda* reorganizes these contents to open space for offering its unique courses that integrate the Mapuche culture.

As mentioned in the first section, Mapudungún is mandatory in all grade-levels since 1988. According to the study programs, the focus is different in grades 9-10 than in grades 11-12. In grades 9-10, the goal is to offer a broad introduction to the language. The contents are: Mapuche greetings and introductions; elements of Mapuche spirituality so students learn the unity between the language, the culture, and identity; basic structures of the written language; basic vocabulary such as meals, domestic utensils, and family relationships; and types of discourse such as stories, advice, prayer, and songs. In grades 11-12, “We focus on different things depending on the vocational track. In the *nursing assistant* track, for example, we teach language related to the body and the hospital context” (Teacher).

The problem of a lack of method for teaching Mapudungún persists since the late 1980s (Vidal et al., 1991). A Mapudungún teacher shared that “there are no methodologies for this ... In the university ... I was taught how to prepare a class, generally speaking, but not the specific contents of a Mapudungún class. Not as it happens in history or mathematics.” In other words, there is no formally established *pedagogical content knowledge* for this specific language (Shulman, 1986, 1987). With regards to materials such as stories or legends, “I search for them in the Internet ... Also, I get them from people who know ... This aspect is particularly important because ... it helps students to connect with their communities ... I ask them to interview their grandparents” (Teacher).

In general, teachers had the perception that Mapudungún was slowly being lost and the school subject “[was] not enough to recover the loss due to spending less time with the grandparents than in the past” (Teacher). This reference was because grandparents were the active speakers of Mapudungún in each family. I observed a 9<sup>th</sup> grade class and, although a few students were engaged, most did not work. One told me that, “Mapudungún isn’t useful for anything concrete, why study it?” When I asked the teacher about this, she reflected,

They do not get the value of the language ... I can learn a lot of history. I can read it in Spanish ... However, the richness of the culture is in the language. If I'm going to say a prayer in a ceremony, I have to say it in the language ... When you translate it to Spanish it's different. It doesn't have the same meaning.

Later, she added that when educators addressed this difficulty, “we conclude[d] that teaching the language need[ed] more support, something across all subjects ... but this [was] complicated because teachers would have to know their subject and the language.” The majority of the teachers only knew the little Mapudungún learned in the three-day summer professional development sessions. Thus, in practice, Mapudungún is a broad introduction to the culture through learning basic vocabulary, ancient legends, and key contextual cues.

As mentioned previously, each vocational track has at least one course that links the track with the Mapuche culture. In the case of *intercultural nursing assistant*, there are two courses. In 11<sup>th</sup> grade, the *machi* teaches *Mapuche health system*, where he presents alternative health systems (e.g., reflexology) to introduce Mapuche traditional medicine as valid and to explain how the public health system includes Mapuche medical care. In 12<sup>th</sup> grade, the *machi* teaches *Mapuche traditional medicine*, in which he explains Mapuche healing techniques and herbal medicine. Documents indicated that *Guacolda* was the only school in Chile that taught these things and the Ministry of Health acknowledged this unique contribution to public health in the Region of Araucanía.

In the *collective food services* track there is one subject that links what is mandated by the MINEDUC to the Mapuche culture: *Fusion cuisine* in 11<sup>th</sup> grade. The goal of this course is to develop the skills to create innovative dishes that project Mapuche traditional food beyond the Mapuche communities to create a market demand for them. The teacher of the subject commented that most of this work

[I]s done with the students ... In the first class, I help them to become aware of the cultural value that they carry. Because they can learn many cooking techniques, but the culinary traditions and the meaning of sharing food with the family that they bring from home ... that's unique ... and only they can bring it to the classroom.

Although the experiences of these students after high school were mixed, a teacher remembered one student who went to work at a hotel restaurant and became known for creating desserts that added Mapuche flavors to the regular menu.

The track *early childhood education assistant* has three specifically Mapuche courses. Two of them relate with music: *music and the child* in 11<sup>th</sup> grade and *Mapuche musical activities* in 12<sup>th</sup> grade. The former includes knowledge of Mapuche musical instruments and the latter includes Mapuche songs (or *ulkantün*). The third course is *Mapuche culture and society* in 11<sup>th</sup> grade, which unpacks the relationships between culture and society, including a historical account of the relationship between the Mapuche culture and the Chilean society. After observing a class of this subject on the concepts of multi- and interculturalism, I wrote in my field notebook: "I believe that this course ... gives a unique lens to look at Chilean society and the marginalization of Mapuche culture." The contents of the course help these future education assistants to understand how education always socializes into a set of cultural assumptions, even at an early age. Hence, "We work the concept of cultural relevance ... For instance, I teach them that people shouldn't all look European in the classroom materials that they prepare" (Teacher).

Finally, the *administration* track includes two specifically Mapuche subjects aside from the mandatory courses on accounting, management, and the like. The first subject is *Mapuche culture and society*, which is the same course as for the *early childhood education assistant* track, although it is taught by a different teacher (and exclusively for the 11<sup>th</sup>-graders in *administration*). This course helps students to see how institutions in which they will work have a

culture that either welcomes or rejects the Mapuche culture. In 12<sup>th</sup> grade, students in this track take *interculturalism and development*, which addresses the lifestyles and development models promoted by different cultures within a diverse society.

Beyond the specifically Mapuche subjects described, the PEI states that “all subjects integrate knowledge from both cultures (Mapuche and Western)” (LIG, 2012 p. 14). In theory, this means that, at *Guacolda*, all traditional subjects (i.e., all teachers) should integrate the Mapuche culture and address the cultural tensions associated to the knowledge in their respective subjects. However, an administrator shared, “If you want me to be honest ... I am certain that few teachers do this. It happens in history, religious education, and a little bit in language [i.e., Spanish]. In mathematics, natural sciences, or English, it doesn’t occur.”

Acknowledging that integrating the Mapuche culture into mathematics and natural sciences is more difficult than in history or religious education, an administrator shared, “What we ask these [math and sciences] teachers is ... to contextualize. For example, ... we have told them to use examples from students’ reality ... from the life of a Mapuche community. That way, they’ll acquire the concepts better.” Another one added,

In the fields of science and mathematics, I believe that the issue of identity has more to do with the attitudinal aspect than with the content itself ... That has been our position [as a school] with regards to these areas in which it’s impossible to integrate Mapuche knowledge because it doesn’t exist. There, don’t force connections that don’t exist. These comments –as well as these subjects’ study programs– indicated that, in math and sciences, teachers were asked to use culturally-relevant pedagogy (Ladson-Billings, 1995) without touching the curriculum. This approach was honest about the fact that Mapuches never developed complex scientific or mathematical thinking. However, it neglected the implicit epistemological tensions. For instance, in matters such as the connection between the material and the spiritual

realms, the scientific mindset and the Mapuche culture have very different premises that were largely overlooked. I come back to this issue in the last section of the chapter.

In history, *Guacolda* tries to broaden the traditional contents of the subject and to help students to realize (and be critical thinkers about) processes of cultural colonization, both in Chile and the world. A teacher explained to me that “I try to do what in history we call *decolonization of knowledge*.” For instance, the MINEDUC’s study program for 9<sup>th</sup> grade begins with the formation of the Chilean State, but

I introduce two prior units ... One to introduce intercultural education, so they understand what the school does as a whole... The other one to explore what was Chile like before the formation of the State ... I show them that there are many historical interpretations and Chilean history has mostly been told from the angle of the elite. I explain to them that my subject is going to expand their view of history. (Teacher)

In religious education, students explore the Christian and the Mapuche religious experiences to help them think about their own beliefs and introduce them to interreligious and ecumenical (i.e., inter-Christian) dialogue. For instance, the 9<sup>th</sup> grade study program includes (a) sacred spaces and prayer in both Christianity and the Mapuche culture; (b) the love of God in both traditions; (c) Jesus and the formation of the Gospels, which sparks important dialogues between Catholics and Evangelicals; and (d) how Christianity and the Mapuche culture invite ethical commitments. In 10<sup>th</sup> grade, the subject tackles directly ecumenism and interreligious dialogue. A teacher explained to me that,

When we address ecumenism ... each student investigates his [or her] church and presents it to the rest of the *curso*. And we take a lot of time to listen and to dialogue ... to ask without prejudices. To this end, we work on our prejudices toward this church before it is presented ... I wrap up the year with some final classes on dialogue.

Religious education implements the two cross-curricular principles of strengthening students' self-esteem by teaching them to feel proud of who they are and preparing students for deep-level dialogues that touch upon personal histories, identities, and beliefs.

Technically speaking, language and literature is the Spanish class. Nonetheless, the subject is used more broadly to work on communication skills and the idea of narratives. In this sense, "From my area, I ask them to rescue their memory ... and if someone isn't Mapuche, it does not matter, you still go back home and inquire" (Teacher). A couple of interviewees recalled how, in this subject, students had done very creative things linking literature and the Mapuche culture. For example, various external walls of the school had "poetic murals" in which students of past cohorts had painted visual expressions of poetry written by themselves.

Aside from the subjects, *Guacolda* has several curricular events that go beyond the study plans (i.e., the regular school schedule). Four of these events are Mapuche celebrations. First, there is a beginning-of-the-year *llepipún* within the first two weeks of the school year (i.e., within March).<sup>84</sup> This ceremony is led by the *machi* and lasts for a whole morning. Second, the most important celebration of the year is *wiñoy tripantu* in June.<sup>85</sup> All subjects must do some activity related to the Mapuche culture during the first weeks of June and the height of the celebration is a two-day *llepipún* around June 24<sup>th</sup> (the day of the Winter solstice). Third, there is a morning-long *llepipún* in August to celebrate the school's anniversary. Finally, on November 12<sup>th</sup>, the school commemorates the *Day of the Mapuche Student*, which is more political than the other celebrations (see Footnote 81). A teacher explained that "last year [2017] we did symposiums ...

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<sup>84</sup> A *llepipún* is a Mapuche religious ceremony that includes singing, praying, and dancing around the *rehüe* (i.e., the totem mentioned in Footnote 80; see Figure 7.3).

<sup>85</sup> Literally, *wiñoy tripantu* means "return of the sun." It is the Winter solstice in the Southern Hemisphere and it celebrates the beginning of a new cycle (year) of nature.

and we invited Mapuche professionals to speak to the students.” All members of the school participate in these four events; Mapuches and non-Mapuches, students and educators.

The school’s pastoral team also organizes a set of curricular events that go beyond the study plans. Some of these events are celebrations of important Christian holidays (e.g., Holy Week) in which –just like in the Mapuche celebrations– all students and educators participate. Also, the pastoral team organizes three day-long retreats that all students experience during their time at *Guacolda*. During the first weeks of 9<sup>th</sup> grade, each *curso* has the first of these retreats in which students are introduced to the school PEI (LIG, 2016) and to basic Mapuche knowledge. That way, “within the first two weeks of the school year, a new student at *Guacolda* experiences the beginning-of-the-year *llepipún* and the 9<sup>th</sup> grade retreat ... where he [or she] perceives that divinity transcends a particular cultural group and rituals are intrinsic to human beings” (Garrido, F., 2016, pp. 52-53). In 10<sup>th</sup> grade, the second retreat deals more directly with Christian values and students’ relationships with their families. The third retreat is at the end of 12<sup>th</sup> grade and has two basic goals: foster student reflection about their four years at *Guacolda* and prepare them for the transition to the next stage, after high school.

The school offers 11 sports, artistic, cultural, and religious extracurriculars, Monday through Thursday after the school day. The most popular of them is *Mapuche cultural group*, which is the group of students who play the traditional Mapuche instruments in each *llepipún*. According to listings available, 15 students participated regularly in this extracurricular and around 15 more joined before each *llepipún* (to help out in the ceremony).

The three-fold integration of the Mapuche culture described in this subsection explains why I termed *Guacolda*’s current curriculum a *binary intercultural curriculum*. It aims to institutionalize a dialogue between the Western and the Mapuche visions of the world. In doing so, this curriculum teaches students to feel proud of who they are, strengthens their self-esteem,



and prepares them for deep-level dialogues with others that touch upon personal histories, identities, and core beliefs.

**A community that fosters trust and identity reconciliations in daily coexistence.** What has been described would not be possible without a school culture that makes *Guacolda* a safe space for authentic dialogues and personal processes of maturity and growth. In this sense, a teacher expressed that, “This literally functions like a family. We all look for each other ... Besides, we [the teachers] educate [the students] permanently. Most of them are far from their homes, so they see us more than their own parents.” Students in the focus group thought the same. One of them commented, “One of the things that I like the most is how teachers treat you ... They support you a lot.” Another one added, “Teachers tell you: ‘You can do it. Don’t give up if you had a low grade. Study more for the next test, and –if you need help– ask for it.’ Some teachers even stay voluntarily after class to help us.” During my days of fieldwork at *Guacolda* in April 2018, I was moved by the sense of community that underlay the daily life at the school.

Aside from creating a safe space, another key element of *Guacolda*’s particular project is the importance of *acompaniment*. One administrator remarked that “one of the things that we do most here is accompaniment.” This term refers to a mix of formal counseling and informal support in which all adults at the school are involved. This formal counseling/informal support is essential because of the processes of self-discovery that the whole curriculum triggers in many students. The additional class period of counseling or *curso* council in all grade-levels gives more time for this purpose (see the study plans in Table 7.2). In this vein, it was common to see students and adults talking in different corners of the school throughout the school day. The consequences of these self-discovery and growth were palpable for interviewees; “When students arrive in 9<sup>th</sup> grade, they are full of prejudices, but when they leave, they are different. You can see the transformation” (Administrator).

Educators often mentioned Evangelical families when they talked about these processes of student growth. An administrator shared that, “We have had Evangelicals who have told their children: ‘Go to school, but don’t get involved in the Mapuche stuff.’ In these cases, we have helped the students to realize that they have to decide for themselves.” The issue here is that many Evangelical pastors in the region preach that the Mapuche beliefs and rituals are witchcraft. A teacher recalled that,

One Evangelical student mentioned that his pastor told the congregation to reject the Mapuche culture ... because it was witchcraft ... I told him [the student] that I wasn’t going to persuade him to change his religion, but he had to refute his pastor because he [the pastor] didn’t know what he was talking about.

From the perspective of the core principles of the school’s curriculum, these Evangelicals seemed to be the extreme case of children raised to abandon their Mapuche identity.

*Guacolda*’s whole curriculum produces high indicators of personal and social development (Agencia Calidad, 2016; see Footnote 82). These indicators include academic self-esteem, motivation, and school climate. In a grant proposal to systematize the school’s experience of intercultural dialogue, Bascuñán (2017) noted that, “The school project is perceived by the public authorities of the region as a successful example of intercultural education that yields high indicators of personal and social development” (p. 11). In this vein, a teacher reflected, “Our students are the same as in other high schools of Araucanía ... However, in the other schools they disturb and fight, but here they don’t. I believe that we have something special here.”

Table 7.3 summarizes the central features of the curriculum that emerges from bringing together all that I have presented in this section. The two-column classification of the subjects

and the events beyond the study plans emphasizes the binary intercultural dialogue that this curriculum aims to institutionalize.

Table 7.3

*Central features of Guacolda's binary intercultural curriculum*

	Mapuche culture	Western culture
Language(s)	Mapudungún.	Spanish (and English).
Culture-specific subjects	The seven Mapuche track-related specialized courses.	Math, natural sciences, and the technical track-related specialized courses.
Subjects where there is explicit intercultural dialogue	History and social sciences, religious education, and language and literature (i.e., Spanish).	
Culture-specific events beyond the study plans	The four Mapuche religious and political celebrations.	Christian celebrations and Chilean national holidays.
Accompaniment in daily coexistence	Additional time for counseling or <i>curso</i> council and a school culture that fosters dialogue and processes of maturity and growth.	

Source: My elaboration based on the data analysis.

Nurturing a community of educators that makes this curriculum its own *comprehensive framework for schooling as a collective endeavor* is difficult. More so if “no Chilean university teaches these things, not even in the Region of Araucanía, where there should be more of it” (Administrator). A crucial element is that some teachers are Mapuches who can relate directly with students’ experiences. One of them shared that,

Many times, when I talk with the students, I talk about my own experience ... When I give them advice, I tell them, ‘Hey, you can do it ... I also went through what you are going’ ...

I think that this aspect is even more important than having studied pedagogy.

Also, it is necessary that all teachers have continuous training on intercultural issues. For instance, every summer, teachers have classes of Mapudungún. The most difficult aspect, however, are the ideological differences. As an administrator put it, “Educating in intercultural contexts is complicated ... not only because of the students and their families, but because teachers take a stance.” The last section discusses these differences and their consequences for

the curricular model, but, before that, the final subsection of this second section describes the tension between *Guacolda*'s emphasis on cultural identity and the academic goals of schooling.

**Tension between the emphasis on cultural identity and the academic goals.** A number of teachers thought that, in the curriculum described, attaining proficiency in the mandated learning standards was secondary to the school's cultural goal. One of them said, "I think that we work 100% on the cultural aspect ... Most actions are oriented in that direction ... The specific contents of the subjects, however ... I think that we only teach 50% or 60% of them." Another one added, "I believe that [academics] is what's less relevant ... We chose not to give attention to the standardized tests and I think that this made us relax with regards to teaching what we should teach." These comments indicated a perceived lack of attention to curriculum coverage and student learning in the core subjects that contrasts with the priority given to integrating the Mapuche culture (and intercultural dialogue) into the curriculum.

A concrete example of this contrast was how *Guacolda* dealt with student failure. In a March 2017 letter, the administration asked all teachers to keep the rate of student failure in each subject under 5%. I witnessed a meeting in November 2017 where teachers were congratulated for meeting this goal because, "from an intercultural perspective, failing a course has a deep effect on students' self-esteem" (Administrator). Teachers commented that they shared this concern of the administration, but they did not see an equivalent concern for student learning in the core disciplines. One of them said, "Our actions aren't what they should be, which is changing what we do so students learn ... The main goal is that they don't get discouraged." Another one added, "What have I done? I have given extra points for classwork ... which is basically inflating grades." These quotes indicated a teacher perception that the administration wanted to minimize student failure –so students do not lose interest in school– but did not lead the pedagogical changes needed so students really learn and improve their grades.

Classroom observations revealed that, despite the circular setup of the classrooms that created a unique environment (see Figure 7.2), instructional methods were fairly traditional: mostly frontal instruction in which students listened passively and individual work with learning guides. After observing a 10<sup>th</sup> grade class, I wrote, “Students were bright, but the work proposed to them fell short ... they could have done much more if they had been scaffolded to do so.” Similarly, after observing a class of *Mapuche culture and society*, I noted: “The content was relevant ... I had never seen such a cultural analysis at the high school level. However, a more active pedagogy would have helped students to deepen their personal experiences of what was taught, which didn’t come up.” The two administrators with whom I shared these observations agreed that the school needed urgently a pedagogical update. One of them shared that,

One day, I went to observe a classroom ... and the class was just like the ones that I had in middle school [in the late 1960s]. There was a list ... on the board and students copied while the teacher sat at the desk. I have observed the same teacher again, two or three times, and it has been always the same.

The other administrator added, “Yes, I think that [the pedagogy] is one of our greatest weaknesses.”

As suggested in the historical account of *Guacolda*’s curriculum reshaping, raising student achievement is not a new challenge. The 2012-2015 PEI indicated the strategic goal of monitoring curriculum coverage. A teacher commented that, “years ago, we reported the percentage of contents taught, the curricular coverage, however, we haven’t done it for a long time.” More recently, the strategic analysis for the 2017 *school improvement plan* indicated the challenge of instructional support for teachers. Nonetheless, an administrator shared that “we dropped the classroom observations that we had planned due to a lack of time.” Another administrator reflected, “The justification is always the same: we are a different school.”

The mentioned issues indicated that, beyond the pressing contextual challenges at *Guacolda*, the quoted teachers' impression that attaining proficiency in the learning standards was secondary to the school's cultural goal was correct. When I asked other educators about this prioritization, they mentioned two broad reasons for it. First, "We have prioritized [strengthening students' cultural identity] because of the urgency of keeping the culture alive" (Teacher). Second, some interviewees pointed toward deep epistemological differences between the Mapuche and the Western visions of the world. An administrator put it this way:

We also develop the cognitive-intellectual [dimension], but it's secondary ... What happens is that, for us, the concern for the cognitive-intellectual feels overly academic.

We also foster student learning ... but we see it more holistically, as we say. The fragmentation [in disciplines and dimensions] ... is Western.

Simply put, cultural revitalization has been *de facto* more important than meeting the mandated academic standards due to (a) the Mapuche struggle for cultural survival, and (b) contrasting ideas about the relevance of giving attention to the learning standards.

The prior paragraphs showed that educators at *Guacolda* had different positions about the tension described. Some even mentioned that this issue had become more critical over the years because of its consequences for students' future. A teacher shared that, "Years ago, the vision ... was that students wouldn't go to college, so they had to learn a trade. Now ... we hope they go to college!" More so since the 2016 *Tuition-Free College* policy entitles low and lower-middle class students (i.e., all students at *Guacolda*) to tuition-free college if they are admitted at any of the institutions that endorse the policy (see Footnote 70). An administrator said that "with this policy ... several barriers were removed, but we have to do better [academically]!" Based upon all the descriptions of *Guacolda*'s whole curriculum and its curriculum reshaping, the chapter now moves toward a discussion and conceptualization of the school's curricular model.

## **A Countercultural High School Built upon a Religio-Cultural Worldview**

The contrast between what was described in the previous sections and the literature on culturally-appropriate curricula in Chilean high schools with large Indigenous populations (in Chapter Two) underscores the uniqueness of *Guacolda*'s model. Turra-Díaz (2012) showed that teachers in most of these high schools did not contextualize their teaching, whereas *Guacolda* required all teachers to do it. Quilaqueo et al. (2011) indicated that no systematizations of the Mapuche culture in curriculum format (e.g., study programs) were available, but *Guacolda* taught Mapudungún and seven courses that linked the vocational tracks with the Mapuche culture. Quintriqueo (2010) posed that the distance between the home culture of Mapuche students and the school's culture resulted in complex biographical struggles, yet *Guacolda*'s unique school culture yielded very positive indicators of personal and social development. These are all major achievements from which other high schools educating Indigenous adolescents can learn much.

However, the prior sections also indicated that *Guacolda* wrestled with important tensions that invited further analysis. First, there was the broad tension between the Mapuche and the Western worldviews, which translated into diverse ideas about what was worth teaching and learning (Díaz-Barriga, 2005; Quintriqueo, 2010). In practice, this tension came up as questions about how much the emphasis on cultural identity promoted or hindered access to the knowledge that will empower students, for instance, helping them to get to college.

Second, the fact that the school was Catholic introduced additional tensions. On the one hand, a significant part of the school community believed that they could be Mapuche and Christian without contradictions. A teacher commented, "There are students who are both, and they live it without problems." However, this belief stood against other discourses that saw these two identities as incompatible because true Mapuches should reject Christianity as a residue of colonialism. On the other hand, the members of the school board –appointed by the Catholic

bishop of Temuco— supported an intercultural education in which the Mapuche and the Christian views coexisted and students were free to make their own choices regarding belief.

The broad tension between the Mapuche and the Western worldviews relates to the tensions derived from being a Catholic school, but these tensions are different. The broad Mapuche-Western tension would remain if the school was not Catholic. Moreover, two Mapuche educators thought that this broad Mapuche-Western tension would be more complicated if the school was not Catholic because there could be a push to neglect the religious grounding of the Mapuche worldview. One of them shared that, differently from other experiences of revitalization of Indigenous cultures, “Here, we’ve emphasized the religious ... because it has been key for keeping the Mapuche culture alive ... In fact, the Mapuche culture has been rescued starting from its religious practices. New *machis* have compelled people to recover the language” (Teacher).

This point highlights that *Guacolda* has an inherently religious understanding of the culture about which there has not yet been sufficient reflection. The 2012-2015 PEI defined culture as the “collectively developed system of symbols that allows a person to understand and interact with the divine, with other people, and with the environment” (LIG, 2012, p. 19). However, most current scholars and policymakers dissociate religion from culture (Cohen, 2009; McCutcheon, 1995; Woodhead, 2011). In this sense, my last day of fieldwork at *Guacolda* was spent at a Symposium on Intercultural Education (at the school) that was attended by scholars from Temuco and educators of nearby high schools interested in learning about *Guacolda*’s intercultural work. Among the many notes that I took during that day, I wrote that, “I was struck by how scholars alien to the school brought an anti-religious discourse that I didn’t hear before the Symposium. Some anti-Christian Mapuche educators applauded this discourse without realizing that it also undermined important aspects of their own Mapuche religiosity.”



I contend that the lack of awareness of the difference between the school's idea of culture (and interculturalism) and other secular ideas partly explains the binary nature of *Guacolda's* whole curriculum summarized in Table 7.3. This curriculum puts Christianity and the Mapuche religion side by side, as if they were the religious core of each culture. However, this is not the case; this does not fully capture the complexity of the tensions with which the school wrestles. As said before, the tension between the Mapuche and the Western worldviews relates to the tensions derived from being a Catholic school, but these tensions are distinct. Mapuches or *hüincas* can be religious (or not) in different ways.<sup>86</sup>

Acknowledging the prior distinctions, I propose that a more accurate account of *Guacolda's* curriculum should consider three (not two) projects in tension:

- *The Mapuche project of cultural revitalization.* This project sees culture as inherently religious and opposes many Western views, including Christianity. In this vein, an administrator shared that, “There was a time when some Mapuches wanted to take the school from to the Catholic church ... and make it a *culturalist* project.”<sup>87</sup> A teacher who took this stance shared that, “I am a practicing Mapuche, not a Christian Mapuche ... and there is a big difference ... I believe in the four spirits and in the spirits of our elders ... I also believe that they [the spirits] are not going to let our culture and traditions die.”
- *The Catholic project of education for peace and reconciliation.* This project was well articulated in the 2012 PEI, which stated that the school's mission was “to offer an intercultural technical education that trains Mapuches and non-Mapuches to accept their identities ... and become protagonists of a social transformation towards a more

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<sup>86</sup> As explained in Footnote 37, *hüinca* is the word used by Mapuches to refer to a non-Mapuche Chilean. It means thief and evokes the land thefts during the 19<sup>th</sup> and 20<sup>th</sup> centuries.

<sup>87</sup> A “*culturalist* project” meant a school for Mapuches by Mapuches, without the involvement of the Chilean State or any Christian church.

humanizing culture” (LIG, 2012, p. 16). In this way, an administrator expressed concern that “promoting a Mapuche-only alternative would imply, for instance ... persecuting Evangelicals.” Another administrator said, “Peace is very fragile [in Araucanía] and we are called to build it from the ground, generating cultural and religious dialogue.”

- *The secular-technical project of career and higher education readiness.* From this perspective, a teacher commented, “The principal who arrived in 2008 [after the crisis of 2007] knew little about the Mapuche culture, so she empowered those who knew about it ... That’s when we lost our focus ... We aren’t centered on what should be first at any school.” Similarly, an administrator shared, “There is a group that I call *cultural-ethnocentric*, which believes that what has been done is wonderful ... Yet, I still don’t understand why we can’t aspire to have 12<sup>th</sup>-graders who are able to study calculus.”

Figure 7.4 depicts the relationships between these projects at the base of the school’s curriculum. The solid arrows represent the broad tensions with which *Guacolda* wrestles and the faded arrow represents the forces of secularization that dissociate religion from culture (Taylor, 2007).

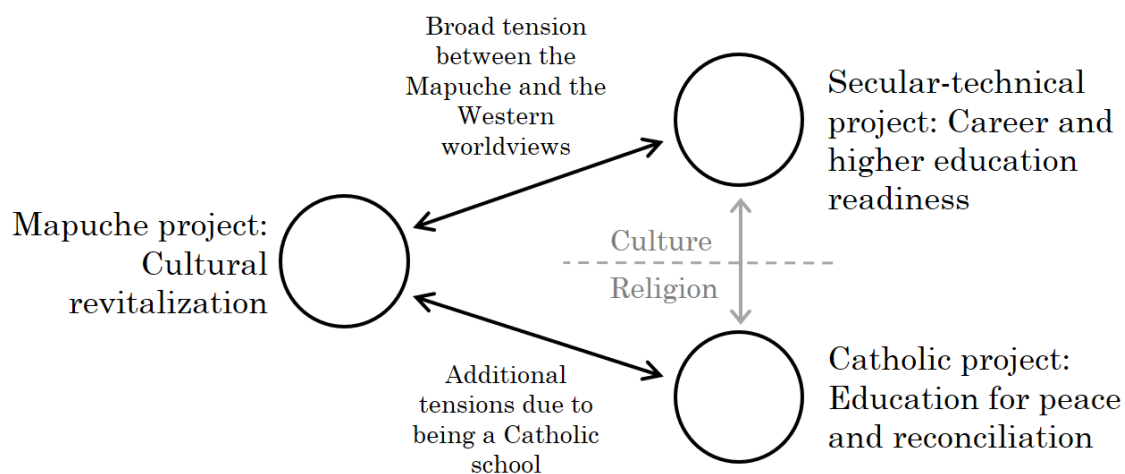


Figure 7.4. The three projects and the two broad tensions underlying *Guacolda*’s curriculum.

Participants who validated my findings expressed that this three-project conceptualization made sense and helped to think of the differences within the Western worldview that the binary

conceptualization did not capture. Someone external could argue for a secular approach to education for peace and reconciliation, but, again, most at *Guacolda* assumed that the deepest level of reconciliation was religious. As the Mapuche teacher quoted earlier put it,

We have managed to coexist [Mapuches and non-Mapuches] thanks to the academic concept of interculturalism. This concept calls for respect, tolerance, and accepting the other group's vision ... even at *the deepest level, which has to do with our religious vision*.

All things considered, the high school model developed at *Guacolda* is *doubly countercultural*. It is countercultural because it integrates a non-Western culture into the curriculum, but also because it is inherently religious (i.e., it builds a community around a transcendent vision). Relatedly, Spring's (2015) study of the worldwide discourses, processes, and institutions affecting local education showed that opposition to global trends came chiefly from religious and Indigenous educational models, of which *Guacolda* is a synthesis. The school's curriculum represents almost the antithesis of the global trends mentioned in Chapter One of a growing culture of cognition, an expansion of the scientific mindset, and an emphasis on the universal over the local (Baker, 2015; McEneaney & Meyer, 2000).

According to Taylor (1994), the last decades' drive for multi- and interculturalism emerged from demands for recognition linked to the idea that recognition shapes identity (thus, non- or misrecognition is a form of oppression). He explained that, historically, these demands grew with the rise of modernity and the idea of universal equity, which thinned many social categories that used to provide recognition. Taylor's point was that modernity carries the paradox of promoting universal equality (and inclusion), but, at the same time, generating homogeneity and non- or misrecognition. For communities with a non-dominant worldview, like Mapuches, this creates the problem of cultural survival. As a student said, "We are mixing, ... sometimes I think that the only real Mapuches left are the elders."

Most curriculum scholars since the 1970s have embraced a critical approach to the curriculum that, in Taylor's (1994) terms, demands recognition (Wise et al., 2016; Wright, 2000). These scholars have claimed that "there is no place for diversity in mainstream school systems" (Díaz-Barriga, 2005, p. 58). The diagnosis has been that "diversity has become a moral content ... that relates to respecting others" (p. 60), but socialization into diverse worldviews has no real place (Apple, 1979; Bourdieu & Passeron, 1977; Goodson, 1995). Accordingly, these scholars have focused on identity (and power) issues, advocating for alternative curricula. Most work on multi- and interculturalism stems from or connects to this critical tradition (Kymlicka, 1995; López, L.E., 2009; UNESCO, 2019).

*Guacolda* shows that the challenge is more complex than solely recognizing a non-dominant identity, though. After the days at the school, I wrote in my field notebook, "Identity reconciliation is necessary, but not sufficient ... The historical experience of oppression demands this counter-experience of recognition, but it cannot be at the cost of the academic learning that will give students access to power." In line with Taylor's (1994) identification of a paradox at the heart of modernity, García-Huidobro (2018) posed that most people from non-dominant backgrounds live in a situation of *existential contradiction* regarding globalized modern culture. On the one hand, they feel the loss of identity that comes with this culture's push for individualized, secular, homogenous lifestyles, which feeds the demand for recognition (Taylor, 1991, 2007). On the other hand, they want modern developments that secure a certain level of material life in relatively peaceful democracies.

Mapuches certainly experience this tension. An administrator reflected that "Parents want their children [both] to be proud of their culture and to have possibilities of a higher education." Moreover, all the students interviewed came to *Guacolda* for its vocational tracks and what they knew about its academic quality, not for its intercultural education (about which they only

learned when they arrived to the school). A problem is that “parents bring their children [to the school] based on their knowledge of the school system, which is poor” (Administrator). For instance, a teacher shared that “some parents think that students in the *nursing assistant* track will be doctors and students in *collective food services* will be chefs.” In short, Mapuche parents have a poor knowledge of both the school system and *Guacolda*’s academic results, but they clearly expect more than identity recognition. They also –and, in many cases, primarily– want an education that will give their youth access to the best modern developments and social mobility.

Remaining doubly countercultural while offering access to the best modern knowledge requires that educators have continuous, deep-level dialogues that bridge the three projects in Figure 7.4. However, these dialogues were stuck when I conducted the fieldwork for this study. The school had the tradition that all educators met every Monday from 8:15 to 9:45 am to deliberate collectively, but after observing this instance three times, I noted that,

This meeting was used to share relevant information and discuss administrative issues ...

The deep tensions [mentioned throughout the chapter] didn’t surface explicitly because ethnic and ideological divisions prevented it ... In theory, this meeting represented the school’s horizontal and collaborative way of making decisions. In practice, it represented the lack of collective deliberation due to the underlying tensions.

This situation characterized well the status of dialogues among educators at *Guacolda*.

Other efforts to generate this kind of dialogues suggest that dialogues have to begin from sharing personal experiences rather than from theoretical understandings (Bascuñán & Sepúlveda, 2016). People need to feel that they can open their hearts and minds without being categorized. For instance, Bascuñán and Sepúlveda (2016) described an effort at *Universidad Católica de Temuco*, where “there was time for listening to each other ... without judging or theorizing each other’s experiences” (p.11). Theories help to make distinctions, but they also

simplify the complexity of people's lived experiences, which tend to be messier and more syncretic than what people admit when they are forced to take a stance in public.

In this vein, I contend that dialogues at *Guacolda* need to begin from educators' personal experiences of the marginalization of the Mapuche people that moved them to educate students who know their culture and feel proud of who they are. For instance, a teacher confessed that,

I got tired of ... I don't know if I can say it ... Oh well, nobody will know ... I got tired of seeing the Mapuches as lazy, stinky, and drunk ... Many in the [R]egion [of Araucanía] see them that way, but I got tired of it and dared to look differently.

A Catholic teacher commented that, "I came with the idea of bringing God's word ... but I realized that I was wrong ... First, God's word was here already ... but, also, Mapuches have suffered much ... in part because of us Christians." An administrator added, "I came to the school simply looking for a job ... but I found a situation that has been made invisible ... and this changed my view of the cultural reality in Chile." These quotes show how connecting with the personal experiences of the exclusion of the Mapuche people creates a disposition of openness and empathy that is a fruitful starting point for the needed dialogues.

Also, dialogues have to acknowledge most Mapuche families' desire for a good academic and vocational education, and address the prejudices and epistemological differences with it. A core issue here is the contrast between modern *powerful knowledge*, which is specialized and differentiated (Young, 2008), and the holistic nature of Mapuche knowledge. As mentioned in Chapter Six, teaching the former knowledge requires specializations that are in tension with the cross-curricular integration of Mapuche ideas (Young, 2013). At bottom, this epistemological challenge relates to accepting that the dominant *symbolic universe* is modern.<sup>88</sup> As critical

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<sup>88</sup> Berger and Luckmann (1966) proposed the term *symbolic universe* for the matrix of ideas, signs, and narratives that provides order to individual's experiences.

theorists have rightly pointed out, this reality relates to power. However, it is also a reality that has objective bases in the transformation that modernity produced at the heart of global culture through scientific and technological progress, representative democracies, etc.

Accepting the core modern ideals does not mean an opposition to religion or all non-Western values, though; there are various ways of being modern (Taylor, 1994, 2007). It only means that religion or values have to be compatible with a modern mentality. In this sense, I finally submit that, beyond cultural revitalization (and resistance), dialogues among *Guacolda*'s educators should delve into the unique contributions that the Mapuche culture makes (or could make) to a modern, scientific education. For instance, the Mapuche ideal of *küme mongen* (i.e., living in harmony with other people, God, nature, and oneself) highlights that education has communal and spiritual goals absent in most mainstream curricular models.

My own experience at *Guacolda* as a researcher was of awe. Despite the tensions described, what the school did was life-giving, chiefly because of the school's spiritual density. In this sense, my final words in the field notebook after the eight days at the school were,

I felt as if I was before something sacred ... In the midst of the conflicts, there was so much humanity, so much compassion ... It was so palpable how a core aspect of many contemporary problems is indeed spiritual ... and how, in this struggle, Mapuches, Christians, and other spiritual people should be united.

The *Guacolda* case shows the possibilities and inherent challenges of developing a curriculum that integrates spiritual and cultural elements at its core. In attempting this integration and facing the corresponding dilemmas of cultural identity, this case exemplifies a very different idea of curriculum innovation than *Dunalastair* and *San Nicolás*.

## CHAPTER EIGHT

### **Cross-Case Discussion: How Are Innovative Schools Reshaping the Curriculum?**

As stated in Chapter Four, the three school-cases had both intrinsic and instrumental value. Chapters Five through Seven answered the research questions for each case with the purpose of understanding each school's curricular model, which underscored the cases' intrinsic value. This chapter discusses findings across the schools, showing the cases' instrumental value. This discussion is guided by the dissertation's general goal of *understanding how these schools addressed the perceived need for reshaping high school curricula*.

The chapter is organized in five sections. First, although it is commonplace in Chile to say that reshaping the curriculum is almost impossible due to the extent of the curricular regulations (MINEDUC, 2016b), I contend that the three schools show that it is indeed possible. The dissertation's comprehensive approach made apparent that this reshaping is fragile and complex, however. Second, I identify elements of the *culture of curriculum construction* that underlay these schools' curriculum reshaping. Third, I describe two major infrastructures that shaped innovation at the schools: (a) people's expectations that schooling will provide a better life (or status) for their children, and (b) the specialized knowledge of the disciplines. Fourth, I compare the current curricula at the three schools and suggest two major relations among them. These relations highlight the challenges of traditional communitarian identities in the present educational context, and the challenge of collective meaning-making at the basis of the perceived need for reshaping high school curricula. Finally, I discuss limitations and implications of this research, as well as future directions for the study of curriculum innovation in Chile.

### **Curriculum Reshaping Is Possible, but Fragile and Complex**

The three school-cases are not average Chilean high schools, nor do they represent the diversity of Chilean high schools. Although they vary in type (i.e., public, publicly-subsidized,



and private) and represent geographic and socioeconomic diversity, they are all middle- or high-achieving schools that reshaped –or are reshaping– the curriculum in different ways and wanted to participate in this study. That is, these schools are unique, selected purposively for being the best available to illuminate the study’s focus.

As described in Chapter Five, *Dunalastair* was developing a more constructivist, scientific, and collaborative college-bound high school than the traditional Chilean college-bound high school by introducing the development of 21<sup>st</sup> century skills and an emphasis on STEM into the curriculum. *San Nicolás* developed a university-like curricular model that requires students to study a common core and offers four broad areas of choice, encouraging students to construct their own trajectories and identities. *Guacolda* developed a countercultural high school model that introduced an Indigenous, intrinsically religious worldview into the curriculum, and put students’ histories, beliefs, and identities at the center of the school experience.

The aforementioned innovations were implemented within the regulations for all Chilean schools. The three schools had an *institutional educational project* (PEI for its Spanish initials) that was available on the website of the Ministry of Education (MINEDUC) and developed the mandated plan for citizenship education (MINEDUC, 2016a). They all had study programs and plans indicating how they attained the learning goals in the national curriculum frameworks. Most importantly, all the 10<sup>th</sup>-graders at these schools took the standardized tests measuring attainment of the curricular goals, and the schools were categorized by the Quality Agency based upon these results (see Footnote 35). The three schools were subject to the policy that mandates closing the school if it is categorized as an insufficient achiever for four consecutive years.

The previous points highlight that, despite the increasingly *tighter, harder, and flatter* context for educational change (Hargreaves, 2009), it is possible to reshape the curriculum within the existing regulations. Chilean educators typically deem the curriculum frameworks as too vast

(Gysling, 2016), and indeed the learning goals are many (MINEDUC, 2016b). However, the three school-cases exemplify innovations within the existing regulations. Thus, these schools *falsify* –in the sense proposed by Popper (1959)– the hypothesis that curriculum reshaping is impossible. On the contrary, they confirm Espinoza et al.’s (2018) claim that, although Chilean schools theoretically have flexibility to develop contextualized curricula within the mandated standards, this space has been given little emphasis.

A major finding across the cases is that curriculum reshaping is fragile and complex, however, even at these schools recommended for their reputation as innovative schools. On the one hand, the historical approach showed that the three schools had stages of more intense and creative curriculum reshaping and stages of stagnation due to diverse tensions and challenges. On the other hand, the whole curriculum approach revealed that schools tended to highlight innovations in one part or aspect of the curriculum, overlooking other parts or aspects. Looking at the whole situated the innovations within a broader idea of what each school educated.

The opening sections of Chapters Five through Seven described each school’s historical curriculum reshaping. For *Dunalastair*, this section showed that the school began a new process of change after 14 years invested in becoming fully *International Baccalaureate* (IB). The core of the recent innovations –the 7-9 grade *D-Project*– was designed at the smallest and newest campus, which had little high school experience, and then was being implemented at the largest and most traditional campus. The future of the whole transformation depended on many factors, so it was not possible to conclude if the changes will get built into the school structure or if the school will return to a more traditional model in some years.

*San Nicolás* developed a new curricular model between 2007 and 2014, as it almost tripled its student enrollment, the number of faculty, and the physical spaces. Recently, whole school changes have become difficult due to growth, strong departmentalization, and expectation

of maintaining the top-charting results (obtained, in large part, by encouraging each department to do its best within its scope of control). The school is a strong case of curriculum innovation that faces increasingly more complex challenges. At the same time, it could be perceived as a young model that will be tested when the “visionary principal” leaves his office. He and other interviewees expressed fear that another principal (or another *sostenedor*) could cut down costly innovations such as *learning by levels* (in which three *cursos* become four sections) or the extension of the school day. For instance, the 2017 documents in which the MINEDUC approved the school’s 7-10 grade extended study plans specified that the government will not pay for the school’s additional class periods (i.e., they have to be paid by the town).

At *Guacolda*, the historical approach showed that the school had a more creative first stage from 1984 to 1997, which was consolidated during the *Monte grande* years (1998-2004). During the last 14 years, there has not been much innovation. Mostly, it has been wrestling with the tensions inherent to the school’s countercultural model. Perhaps sustaining the innovations in a more achievement-focused and polarized context (that includes a change of the Catholic bishop who names the school board) speaks about the strength of the school’s curriculum reshaping. Nonetheless, the tensions described in Chapter Seven indicated that the *comprehensive framework of aims and contents for schooling* was fragile at the moment.

The descriptions of each school’s whole curriculum situated the innovations within the school’s broader framework of aims and contents. At *Dunalastair*, for example, educators did not expect me to interview physical education teachers, observe periods of *curso* council, or attend a meeting of *profesores jefe*. They imagined a more exclusive focus on the 7-9 grade project-based learning, their core recent innovation. However, the whole curriculum approach allowed me to detect the different degree of novelty between *D-Project* and *D-Thinking*, appreciate the importance of sports at the school, and deepen the kind of values education offered.

At *San Nicolás*, I witnessed two groups of educators visiting the school for a day. These visitors reminded me of my first visit in 2017 (for the case selection). The school had a well-crafted narrative about its innovations and both groups of visitors were fascinated by everything. Because of this typical experience, interviewees were surprised when I asked about the tensions around the school's extended, collected, and ambitious curriculum presented in Chapter Six. Other visitors did not ask why the school had classes until 5:40 pm or why the arts were highlighted so much in their narrative if the actual time allotments indicated that the primary emphasis was on the academic core. These comprehensive, whole curriculum questions triggered insightful conversations about less-discussed yet essential aspects of their curriculum.

At *Guacolda*, non-Mapuche teachers of science, math, or the technical-vocational track-related specialized courses were surprised that I wanted to hear their perspectives on the school's curriculum. Previous researchers had focused exclusively on how the school was a place for intercultural dialogue, only approaching administrators, humanities teachers, and Mapuche educators (Bascuñán, 2017; Garrido, S., 2015; Stafford, 2011). The concern for the whole curriculum implied looking at all areas of the school, which felt new to them. Likewise, previous scholars rarely asked about the school's relationship with the Catholic church, which Chapter Seven proved to be an essential aspect of the complexity of the school's curriculum reshaping. Participants who validated the findings appreciated the conceptualization of the tensions underlying their model that resulted from this comprehensive approach.

In short, at the three schools, the comprehensive –i.e., historical and whole curriculum– approach revealed that curriculum reshaping was possible, but fragile and multifaceted. This result resembles Mehta and Fine's (2015a) finding that across the 30 innovative high schools that they studied, "there were startling gaps between aspirations and realities" (p. 10). Their focus was different than this dissertation's focus; they studied *deeper learning*, understood as student

engagement in cognitively ambitious tasks. Yet, even at schools “specifically recommended because of their focus on critical thinking, [Mehta and Fine] ... observed students consistently engaged in ambitious work in only about one in five classrooms” (2012, p. 35). The flip side (or the “good news,” as they called it) was that “such learning [was] happening *somewhere* in virtually every school that [they] visited” (Mehta & Fine, 2019, p. 31). In other words, deeper learning was scarce but it occurred. Similarly, this dissertation found a gap between the schools’ discourse about curriculum reshaping and reality, but also good examples of how to use the flexibility that schools have for developing their own curriculum within the mandated guidelines.

### **A Culture of Curriculum Construction**

I believe that the root of these schools’ use of the flexibility for contextualizing the curriculum was the habit of reflecting about what is worth teaching and why, which Pascual (2001) termed *a culture of curriculum construction*. Pascual never deepened his concept, but I will as it seems to capture key elements that underlay the studied schools’ curriculum reshaping.

The following seven characteristics, drawn from across the curriculum reshaping described in Chapters Five through Seven, outline these schools’ culture of curriculum construction. Each characteristic will be explained more thoroughly in the next paragraphs.

1. Attention to and inquiry about the students.
2. Leadership with vision and the courage to push boundaries.
3. Integrative ideas that overcome disciplinary boundaries.
4. Clever use of external supports to strengthen the school project.
5. Teachers who are experts in their subjects, understand the school project, and collaborate.
6. Concrete instances for curriculum deliberation.
7. Knowledge of how to get the MINEDUC’s approval of the innovations.

These characteristics manifested in diverse forms and with different degrees of intensity at the schools. Also, in line with the fragility of curriculum reshaping mentioned earlier, these characteristics evolved over time, with the changes of people, of organizational structure, and in the broader policy and socio-political context influencing their concrete realizations.

The first characteristic of these schools' curriculum reshaping was educators' greater attention to the study of their students and their contexts. Most innovations began from a concrete inquiry about the students or their contexts, and developed in response to concerns that these observations identified. For example, *Guacolda's* intercultural curriculum was developed to address Mapuche youth's low self-esteem, due to not valuing their cultural roots and identity. *San Nicolás* extended the school day to secure the time needed to fill in the learning gaps that most students carried with them from their primary education. *Dunalastair's* recent innovation partly emerged from the perception that the traditional transition from elementary to upper high school was problematic for today's adolescents. Administrators worried about how specialized knowledge was introduced and how students transitioned from being with one teacher for most of the day to a rotation of specialists, so they crafted a smoother 5-9 grade transition. At the three schools, reflecting collaboratively about the perceived problems of their students was the start of innovations that went beyond the more commonplace tinkering with individual subject matters.

The second characteristic of the schools' curriculum reshaping was leadership with vision and the courage to push boundaries. The clearest example of this characteristic was *San Nicolás'* principal. His vision was to give each student what he or she needed to flourish, welcoming any proposal that furthered this vision, be it labeled as conservative or progressive. He urged all the educators to change whatever was necessary to expand students' options to shape their own developmental pathways. Examples of this characteristic at the other schools were the *Guacolda* principal who helped to build the internal dialogue needed to live out the intercultural ideal after

the 2007 crisis, and the *Dunalastair* leaders who discontinued the implementation of the IB *Middle Years Program* (MYP) to design something different for the middle and lower high school. Leaders at the three schools were courageous to push the limits and navigate the associated complexities when this was needed to realize their vision.

Consistent with the literature's emphasis on the importance of shared ideas for curriculum innovation (Giles et al, 1942; Muncey & McQuillan, 1996), these schools' curriculum reshaping included ideas that integrated the curriculum across disciplinary boundaries (the third characteristic). Educators were socialized into these ideas through induction processes, professional development, and a constant reminder of the narrative sustaining these ideas. *Guacolda* had the deepest level of conceptualization of these ideas. The school's PEI explained the intercultural paradigm with detail and educators manifested that embracing it was a milestone in the school's curricular evolution. At *San Nicolás*, the core idea related to their culture of high expectations for all that fostered and supported hard work across the four parts of their collected curriculum. At *Dunalastair*, the curricular philosophy was not yet sufficiently spelled out, but related to preparing science-minded, bilingual, and flexible students who can adapt to constant change. Meanwhile, the factor integrating the school's curriculum consisted of constructivist ideas about active learning. At the three schools, these ideas brought people together and gave direction (and criteria) when educators had to make decisions about their teaching.

Fourth, the schools cleverly used external supports to strengthen the school project. Whether government programs, scholars interested in the school (like me), or visits to other schools (like *High-Tech High*), the three schools used what was useful, and discarded what did not help them to build their projects. *Guacolda's* and *San Nicolás'* participation in the *Monte grande* and the *Bicentennial* were good examples of this characteristic. *Guacolda* fulfilled all the *Monte grande's* conditions, but –as stated in Chapter Seven– strategically used the

program's funds to go beyond the requirements and begin the work on interculturalism.

Likewise, *San Nicolás* met the *Bicentennial*'s goal of advancing students' proficiency in the core subjects so more of them went to college. However, the school integrated this goal into the principal's larger vision, thereby strengthening the project instead of becoming a teach-to-the-test or highly selective high school.

The fifth characteristic of the schools' curriculum reshaping was the presence of proactive teachers who (a) were experts in their subjects (and the corresponding learning goals), (b) understood the ideas underlying their school's whole curriculum, and (c) collaborated with their peers to further realize their leaders' vision. In this sense, an educator from *San Nicolás* reflected that teachers at this school "have recovered their role as intellectuals." Within each department, they studied the standards and developed curriculum collaboratively. The *Dunalastair* teachers who designed the 7-9 grade interdisciplinary projects for each *D-Project* integrated area had a similar experience. At *Guacolda*, a moving example of this characteristic was how, in preparation for the June feast of *wiñoi tripantu*, all educators prepared activities related to the Mapuche culture that connected with their respective subjects. Pascual's (2001) and Erazo's (2001) assertion that building a culture of curriculum construction in Chilean schools would require a different teacher training referred to this kind of professionalism.

The existence of concrete instances (and time) for reflecting about what is worth teaching and why was the sixth characteristic of curriculum reshaping across the schools. The frequency or participants in these instances depended upon each school's size and organizational structure. For instance, *San Nicolás* had some cross-department instances, but most reflection occurred in the departments (that met every Monday). *Guacolda* had a weekly faculty meeting that some deemed "sacred." The dialogues required by the school's countercultural model were not occurring when I visited them in early 2018, but the instance had been in place for more than a decade and had



served its purpose well. Also, the school regularly organized opportunities for discussing the core ideas in the PEI with scholars, such as the Symposium on Intercultural Education that I attended. At *Dunalastair*, administrators had mid- and end-of-year retreats where they went beyond the daily urgencies of the school and discussed their *framework of aims and contents for schooling as a collective endeavor*. Without these instances, having capable people or integrative ideas would not have necessarily yielded these schools' curriculum reshaping.

Finally, the seventh characteristic of the schools' curriculum reshaping was knowing how to get the MINEDUC's approval of the curricular innovations. The Chilean law indicates that schools have space for contextualizing the curriculum, but the MINEDUC has to approve the changes. Because these changes are rare, though, not even the MINEDUC officers have much experience with these approval processes.<sup>89</sup> In this situation, the *jefes de UTP* at the three schools had learned that the key to getting approval was meeting the official format requirements. *Guacolda* learned this lesson after the MINEDUC rejected the study programs and plans presented in 2004 (and approved them the next year). At *San Nicolás*, the *jefe de UTP* had done this process so often that lately she was asked to draft an approval document that the MINEDUC officers simply revised and signed. At *Dunalastair*, documentation evinced the same struggle with format issues, which they learned to work out. At the three schools, administrators knew the MINEDUC officers responsible for approving the curricular changes in their respective region and had learned to deal with this process so it did not impede their curriculum reshaping.

The mentioned characteristics suggest that an innovative school's culture of curriculum construction is the institutional, professional habit of reflecting about what is worth teaching: (a) having the students at the center, (b) combining an orientation to practice with ideas that integrate

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<sup>89</sup> In a personal conversation, a former MINEDUC officer shared that, around 2015, she and a colleague developed the first protocol for these processes because there was nothing in place.

the curriculum across the disciplines, (c) counting with the educators' expertise in their subjects, (d) having concrete instances (and time) for advancing this reflection, and (e) knowing what is necessary to get the MINEDUC's approval of the innovations. Such a professional habit shares many features with Schwab's (1973) idea that curriculum work should be conducted by school-based deliberative groups that combine all the needed knowledge and expertise.

The seven characteristics also indicate that curriculum reshaping requires a certain ingenuity that goes beyond an institutional habit. Key aspects of this ingenuity are (a) knowing how to play in the limits of the existing curriculum regulations, and (b) strategically using all supports available to advance the school project. An in-depth understanding of this ingenuity entails another type of research, more focused on the people with this trait at each school, such as the principals at *San Nicolás* and *Dunalastair*, or the *jefe de UTP* and the religious education teacher at *Guacolda*. In relation with the theory of curriculum as infrastructure, this ingenuity resembles the intelligence of an infrastructure builder who can “envision the fulfillment of functions by linking heterogeneous systems ... moving between the technical and the social[-political]” (Jackson et al., 2007, para. 23).

## **Two Major Infrastructures that Shape Curriculum Innovation**

The research found that, in part, the fragility and complexity of curriculum innovation was due to the embeddedness of curriculum reshaping in two major infrastructures (in the sense proposed with the theoretical framework). Like the seven characteristics of curriculum reshaping across the schools, the influence of these two infrastructures manifested differently at each school. This section discusses these infrastructures and how they appeared at the schools.

The first major infrastructure that shaped curriculum innovation was the expectation that schooling will give future opportunities (or status), which was intrinsically related to the social dynamics of the Chilean market-based school system. The literature indicates that for the elite,

this aspiration relates to belonging to certain communities that share a tradition and provide social capital (Bellei et al., 2019). Among the middle class, this expectation relates to preferring publicly-subsidized schools over public schools because the former are perceived to have a stricter discipline than the latter and to offer differentiation from the working class (Canales, Bellei, & Orellana, 2016). Among the working class, some families actively seek a school that will help their children to move up in the social ladder, while others conform to the closest school available (Bellei et al., 2016). Both groups believe, however, that a technical-vocational secondary education will serve their youth better than the college-bound alternative.

What this dissertation adds to the above literature on school choice is evidence of how these aspirations for having a better life (or status) shape curriculum innovation. In Chapter Five, I described how the elite context forced *Dunalastair* to prioritize the preparation for college-entrance exams, which limited the scope of the innovations. Moreover, a teacher thought that most parents put up with the 7-9 grade project-based education, “hop[ing] that their children will be admitted to study certain careers in certain universities, ... and wonder[ing] ... if they are going to have the same possibilities that they would have had in a traditional [elite] school.” At the same time, I proposed that the change toward a more constructivist, collaborative, and scientific college-bound model could be considered to meet a “more financial than cultural” elite’s idea of what their youth will need in the future. This tension between securing social status and being open to a “more technical” college-bound high school revealed that a part of the Chilean elite believes that the type of schooling that is best for their children is other than the schooling that provides status now. However, this group will not hurt its children’s status in the transition. *Dunalastair*’s recent innovations were shaped by this belief and the associated tensions.

*San Nicolás* was the school at which this social infrastructure more explicitly shaped the innovations, although this shaping was complex. Since the early 2010s, the school’s reputation

attracted middle and working class families that typically would have looked for a subsidized school in the city. Hence, the school mixed active social-mobility-seekers and rural, working class students that went to *San Nicolás* because it was their town's public high school. The school strived to assure that no one was left behind, but the influence of the larger social infrastructure was pervasive. An administrator pictured the school as a "social springboard" for how it generated social mobility and many teachers described their mission in similar terms. Regarding the curricular innovations themselves, the attitudinal assessment, the extension of the school day, and grouping students by level of proficiency, all related with this social infrastructure. The "complicated" contrast between the college-bound and the technical tracks since the *Bicentennial* was another evidence of how this infrastructure shaped the school's curriculum innovation.

At *Guacolda*, the curricular evolution revealed that parents aspired to an education that gave their children access to modern knowledge and urban life since the beginning of the school in 1984. Parents were mostly rural, Indigenous people with a poor knowledge of the school system. A teacher noted that some did not even realize the difference between a technical and a college-bound secondary education. However, it was clear that they wanted their children to become professionals. This aspiration elicited diverse reactions among educators. Some felt that its requirements (e.g., conducting more rigorous analyses of student achievement data) could distort the project of advancing a culturally-revitalizing education. Others felt frustration for not offering a more rigorous academic training. In either case, the tension was evidence that *Guacolda*'s innovations were inescapably embedded in this social infrastructure.

The second major infrastructure that shaped the three schools' curriculum reshaping was epistemological: specialized knowledge. This second infrastructure relates to the first one because having access to this knowledge can generate social mobility (Young, 2008), but the two

infrastructures are different. Knowledge is socially constructed, but not arbitrarily constructed; it has an objective basis on facts and reality (Moore & Muller, 1999; Muller & Young, 2019).

Despite the stability of this epistemological infrastructure, McEneaney and Meyer (2000) and Baker (2014, 2015) identified trends in most countries' curriculum guidelines that reflect a change in the knowledge underlying the curriculum. These trends were (a) a growing culture of cognition, (b) an expansion of the scientific mindset, and (c) an emphasis on the universal over the local (or traditional). Like the social infrastructure, the epistemological infrastructure shaped innovation differently at each school, depending on the school's curricular philosophy.

Since 2015, *Dunalastair* adopted a "fully-constructivist view." This view entailed promoting active learning aligned with *psychological* (or *pedagogical*) *constructivism*, but also a certain neglect of the structure of the disciplines due to the implicit *epistemological constructivism* (McPhail, 2016b). Learning became more motivating and included new skills such as collaboration. Still, several teachers questioned the overlook of the specifics of teaching and learning their disciplines. This tension confirmed how curriculum innovation was deeply embedded in the epistemological infrastructure.

At the same time, *Dunalastair*'s latest innovations corresponded almost directly with the global trends identified by McEneaney and Meyer (2000) and Baker (2014, 2015) towards cognition and the scientific way of thinking.<sup>90</sup> The innovations aimed at instantiating the 21<sup>st</sup> century skills agenda that drives the development of learning standards globally (Spring, 2015). Therefore, the teachers' questions could be perceived as resistance to the change in the larger epistemological infrastructure. Perhaps, teachers were resisting the said *appropriation of constructivism by instrumentalism* (Wheelahan, 2012).

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<sup>90</sup> The third trend, an emphasis on the universal over the local, has been central to the school since its foundation as a bilingual school in the British tradition.

As mentioned in Chapter Six, *San Nicolás* developed a collected curriculum in which quality is achieved through specializations (Bernstein, 1971). The undertheorized epistemology that underlays this curriculum reshaping was *social realist*: powerful knowledge is specialized, so empowering students entails securing that they have access to subject-based learning (Young, 2008). Partly, the alignment of this idea with the traditional epistemological infrastructure explains why *San Nicolás* was able to innovate without major tensions or structural constraints (and now faces the challenge of building coherence across the fragmented departments).

*San Nicolás* also embraced the mentioned global epistemological trends, but with nuances. The scientific way of thinking had an important place, but it was not the center. Broadening students' cultural horizons through the study of foreign languages and exchange programs was essential, but the school kept strong ties with the local region. I believe that the contrast with *Dunalastair* in this regard related to two factors. On the one hand, the difference in social context determined a different degree of concern for these global trends. On the other hand, the two schools had diverse curricular philosophies. *San Nicolás* did not adopt *epistemological constructivism*, although the pedagogy had some basis on *pedagogical constructivism*.

At *Guacolda*, the school's curriculum philosophy was institutionalizing a dialogue between the Mapuche and the Western cultures. Since the Mapuche culture is intrinsically religious and never developed complex mathematical or scientific thinking, this philosophy resulted in an implicit distinction between two broad areas of the curriculum. In the humanities, which included religious education, the school developed a culturally-relevant curriculum. In STEM, the school more or less taught the MINEDUC's study programs aiming to use culturally-relevant pedagogy (Ladson-Billings, 1995). The overall concern for cultural identity entailed giving precedence to the first area over the second. Also, the Mapuche idea that learning is holistic entailed prioritizing a whole-person approach over a focus on cognition. *Guacolda* did

not embrace the global trends mentioned. Still, the tensions underlying the school's curriculum manifested that the innovations were intensely embedded in this epistemological infrastructure.

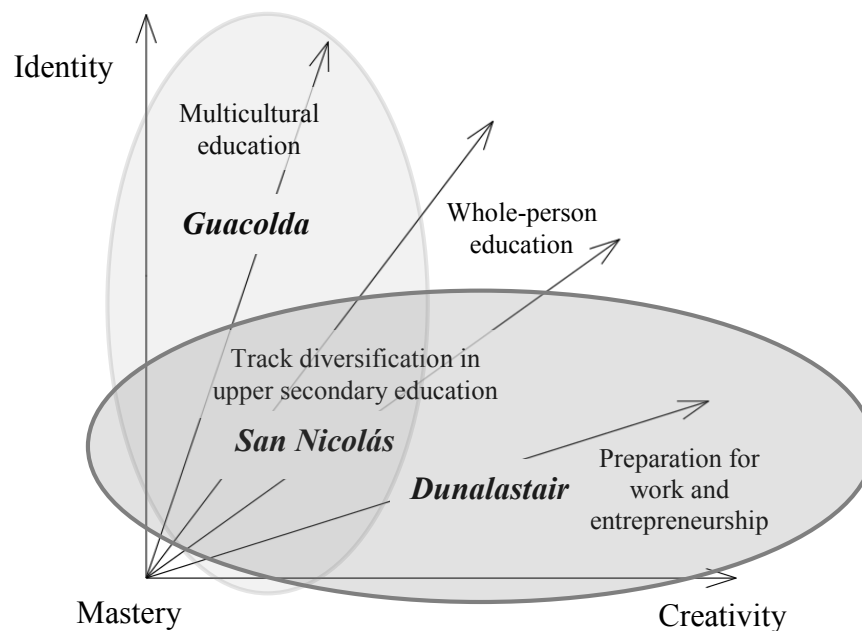
This section discussed how, even though the three schools had a culture of curriculum construction, innovating was fragile and complex because it was shaped by two major infrastructures. First, curriculum reshaping was embedded in people's expectations that schooling will improve their social condition. Second, curriculum innovation was shaped by the subject-based structure of powerful knowledge and the global trends in its production and selection. *San Nicolás* exemplified a relationship of affinity between these two infrastructures by showing how a traditional subject-based curriculum can enable social mobility. *Dunalastair* showed how a more financial than cultural elite is seeking to adapt to the change in the epistemological infrastructure focusing on cognition and the sciences. *Guacolda* struggled with both infrastructures due to its different primary focus. The differences between the models apparent in how the schools related with the two infrastructures now give way to a discussion more directly focused on how each school addressed the perceived need to reshape the curriculum.

### **Affinities and Oppositions Among the Three Curricular Models**

The three cases were selected purposively for reshaping the curriculum in different ways. These "different ways" related to two findings in the literature review. First, the history of Chilean policies on high school curriculum innovation indicated that the idea of innovation enlarged with the expansion of high schooling over the 20<sup>th</sup> century. In the 1940s, with the *Renewal Plan*, innovating was basically implementing a Deweyan *student-centered education*. By the late 1990s, innovation had become *meeting contextual needs appropriately*. In this vein, the *Montegrande* identified four fields of innovative institutional projects (MINEDUC, 2004). Second, Mehta and Fine (2015a) clustered the 30 schools that they studied into three groups: schools focused on *mastery*, school focused on *identity*, and schools focused on *creativity*.

Combining these findings, I put together the *typology of Chilean curriculum innovations* pictured in Figure 2.2. The three cases for this dissertation were selected based upon this typology. *San Nicolás* focused on mastery; *Guacolda* focused on identity; and *Dunalastair* was moving from the traditional focus on mastery to more focus on creativity.

This fourth section discusses the contrasts between the school models. The three schools show that curriculum reshaping is possible if there is a culture of curriculum construction, although this reshaping is fragile and complex. This section adds that there are two relations of affinity and opposition among the three school models. Figure 8.1 pictures these relations upon the schools' positions in the typology of Chilean curriculum innovations in Figure 4.2.



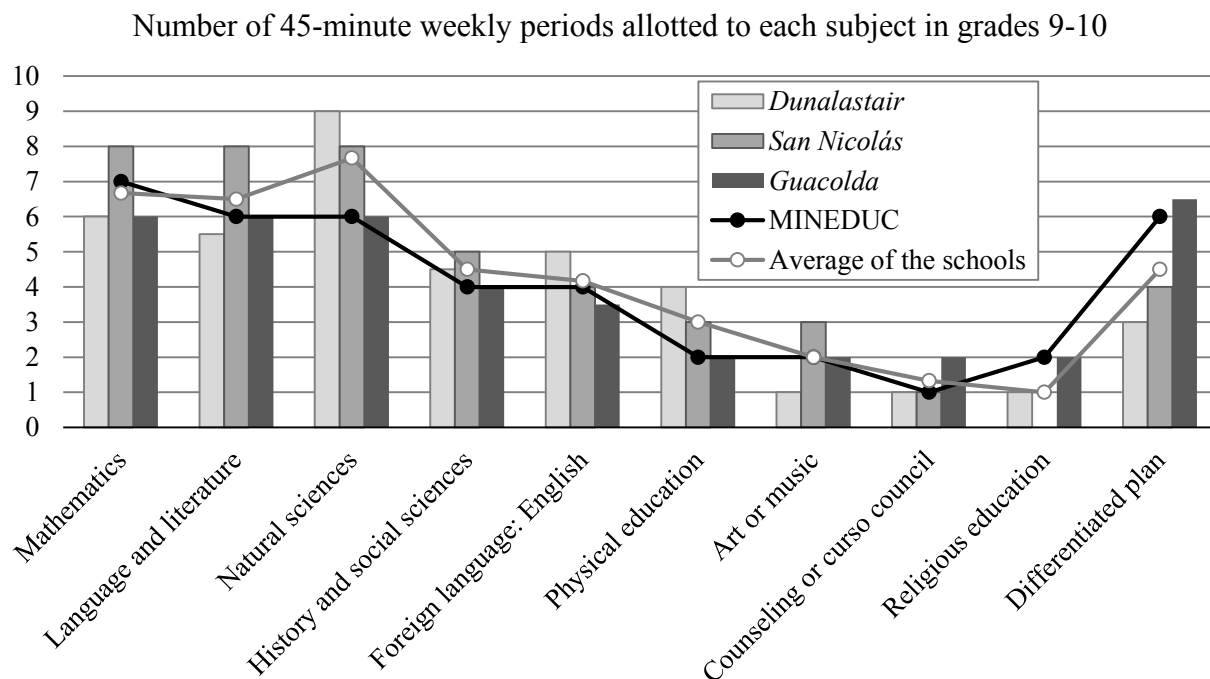
*Figure 8.1.* The schools' ideas about innovation and their relations of affinity and opposition.

On the one hand, although *Dunalastair* and *San Nicolás* are very different from each other, they share an approach to education that aligns with the two infrastructures discussed in the last section. This approach sets them apart from *Guacolda*. On the other hand, although *San Nicolás* and *Guacolda* also are very different from each other, they share an explicit attention to



the students' social context that results in a particularly meaningful school experience. This attention sets them apart from *Dunalastair*. The horizontal oval is darker than the vertical oval (in Figure 8.1) because the first relation was clearer in the data than the second one.

The only grade-levels for which it is reasonable to compare the three schools' study plans presented in Figures 5.2, 6.2, and 7.2 are grades 9-10. This is because *Guacolda* does not have grades 7-8 and because grades 11-12 are very different at a college-bound high school (i.e., *Dunalastair*) than at a technical-vocational high school (i.e., *Guacolda*). Figure 8.2 presents a comparison of these study plans at the three schools, i.e., the weekly time allotted to each subject at each school during grades 9-10. The black and the gray lines represent the MINEDUC's study plans and the average time allotted to the subjects at the three schools, respectively.



*Figure 8.2.* Number of weekly periods allotted to each subject at each school in grades 9-10. Where the number of periods is different in grades 9-10, calculations assume the average. Source: My elaboration based on Tables 5.2, 6.2, and 7.2.

The first aspect that stands out from Figure 8.2 is that the differences between the study plans are not too large. This relative similarity is consistent with the literature, which indicated

that most Chilean schools taught almost the same study plans (Meza et al., 2002, 2003). Also, this relative similarity aligns with the finding across Chapters Five through Seven that some of the most important features of these schools' whole curricula were not observable in their study plans. These features occurred within the time allotted to the subjects. *Dunalastair* had integrated areas for project work in 9<sup>th</sup> grade. *San Nicolás* offered choices of foreign languages, sports, and artistic pursuits. *Guacolda* integrated the Mapuche culture into the humanities classes.

Beyond this relative similarity, however, Figure 8.2 shows that –on average– the schools augmented the time allotted to natural sciences and physical education. This augmentation was the largest at *Dunalastair*, followed closely by *San Nicolás*. The latter school also had extra time for math, language, and history that came from its extended school day (four extra periods per week). The flip side of the augmented time for natural sciences and physical education was less time for religious education and the differentiated plan (i.e., the class periods of free disposal used for things other than the standard subjects). In contrast with *Dunalastair* and *San Nicolás*, *Guacolda* taught more or less the time allotments suggested by the MINEDUC.

These results suggest that, within the relative similarity of Chilean high schools' study plans, innovative schools make slightly different choices than average schools. Most Chilean high schools used an important part of the class periods of free disposal to reinforce math and language (Castillo & Martínez, 2017), but the studied schools did not. In fact, the average time allotted to math was less than what the MINEDUC mandated. The “new” 9-10 grade subjects at the three schools were the 10<sup>th</sup> grade electives at *Dunalastair*, digital literacy at *Guacolda*, and languages other than Spanish and English at *San Nicolás* and *Guacolda*. *San Nicolás* offered Chinese, French, or German, and *Guacolda* required *Mapudungún*.

This comparison of the study plans points toward the first relation of affinity and opposition pictured in Figure 8.1. With differences, *Dunalastair* and *San Nicolás* both used class

periods of free disposal and dropped religious education (in the case of *Dunalastair*, from 10<sup>th</sup> grade on) to augment the time allotted to natural sciences and physical education. Also, they emphasized the importance of foreign languages to foster a global perspective. *San Nicolás* added an extension of the school day to fill in the gaps that its students carried from elementary school. More broadly, both schools assumed people's expectation that schooling provides social mobility (or status) and engaged with the epistemological trends that will potentially transform how schooling distributes social status in the future. The differences between the two schools are discussed later, as they point toward the second relation of affinity and opposition in Figure 8.1.

*Guacolda* did not augment the time allotted to the curriculum core, taught religious education throughout high school, and used all the class periods of free disposal for things other than the core subjects. Linguistically, the concern was not to foster a global perspective but to rekindle local identity and belonging. More broadly, the school struggled with the trend toward emphasizing STEM and the demand for raising students' proficiency in the mandated standards.

The data on how the three schools approached the cross-curricular goals that are a part of the national curriculum frameworks provide yet another confirmation of this relation of affinity between *Dunalastair* and *San Nicolás* that sets them apart from *Guacolda*. Individual interviewees and focus group participants selected the three dimensions grouping cross-curricular goals that were most and least emphasized at their school.<sup>91</sup> In the focus groups, participants had to discuss how the nine dimensions were addressed (or not) by the school and arrive at a

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<sup>91</sup> As mentioned in subsection *Place of the National Cross-Curricular Goals* (in Chapter Two) the last curriculum frameworks listed 34 cross-curricular goals under nine dimensions (MINEDUC, 2015a). These dimensions were (a) *physical*, (b) *social-emotional*, (c) *cognitive-intellectual*, (d) *social-cultural and civic*, (e) *moral*, (f) *spiritual*, (g) *productivity and work*, (h) *construction of a life project*, and (i) *use of information and communication technologies* (ICTs). See question four in the interview protocol in Appendix F.

collective selection of the three most and least emphasized dimensions. Table 8.1 presents the aggregation of all the individual interviewees' and focus groups' selections at each school.<sup>92</sup>

Table 8.1

*The dimensions grouping cross-curricular goals most and least emphasized at each school*

	<i>Dunalastair</i>	<i>San Nicolás</i>	<i>Guacolda</i>
Dimensions most emphasized	- cognitive-intellectual - physical - productivity and work	- cognitive-intellectual - life project - physical - productivity and work	- life project - moral - social-cultural and civic - social-emotional - spiritual
Dimensions not most nor least emphasized	- moral - social-emotional - use of ICTs	- moral - social-emotional - use of ICTs	- physical - productivity and work
Dimensions least emphasized	- life project - social-cultural and civic - spiritual	- social-cultural and civic - spiritual	- cognitive-intellectual - use of ICTs

Source: My analysis of the interview data.

The dimensions most and least emphasized at *Dunalastair* and *San Nicolás* were almost the same. Both schools prioritized cognition, which was coherent with their focus on the curriculum core and good academic results. Both schools also gave a prime place to the physical dimension, which was consistent with the augmented time for physical education and the importance of their sports programs. The emphasis on productivity and work matched with both schools' concern for entrepreneurship. At *Dunalastair*, this concern manifested in the shift toward 21<sup>st</sup> century skills and project work; at *San Nicolás*, it showed in several minor initiatives such as the replacement of the 9-10 grade class on sex education with a class on entrepreneurship. The difference between the schools was in the interviewees' perceptions of how each school

<sup>92</sup> The method for this aggregation was simple. I gave a +1 or -1 score for each mention as most or least emphasized. Then, I added the scores for each dimension and clustered the dimensions according to their total scores. Dimensions with a clearly positive total score were the *most emphasized*, dimensions with a total score close to zero were *not most nor least emphasized*, and dimensions with a clearly negative score were the *least emphasized*.

helped students (or not) to construct their life projects. Again, this difference points to the second relation of affinity and opposition, which I discuss later.

The flip side of the shared emphasis on the mind, the body, and entrepreneurship was that interviewees at both schools perceived less emphasis on the social-cultural, civic, and spiritual dimensions of the person. This was consistent with dropping religious education and broader aspects of each school's culture described in Chapters Five and Six. At *Dunalastair*, the culture was perceived as warm and respectful, without bullying. However, it was also perceived as “a bubble,” disconnected from the larger social-political reality. At *San Nicolás*, the culture was perceived as warm and inclusive, family-like. It encouraged high expectations for all, hard work, and pursuing one's dreams. Yet, it did not promote much social-political concern or commitment. At both schools, student organizations were relatively weak and apolitical.

In contrast, interviewees at *Guacolda* perceived that the social-cultural, civic, and spiritual dimensions were among the most emphasized (along with the social-emotional, the moral, and the construction of a life project). These perceived emphases were consistent with the cross-curricular principles underlying the school's curriculum, which stressed self-esteem, cultural pride, spiritual depth, and capacity for deep-level dialogues that touch upon personal histories, identities and beliefs. Relatedly, many students had social or political commitments in their churches or in Mapuche cultural and political organizations. In accordance with prior data, the perception was that the cognitive-intellectual dimension was less emphasized.

All things considered, although *Dunalastair* and *San Nicolás* had many substantive differences and educated vastly different student populations, the visions of the human person that underlay their curricular models shared several elements. Indeed, many administrators and teachers from *San Nicolás* compared their school to the private schools in Chillán (the regional capital). One of the ways in which these educators described the school's mission of advancing

social justice was, precisely, “offering to their students the same educational opportunities that affluent students enjoy at the private schools in Chillán.” Accordingly, both *Dunalastair* and *San Nicolás* focused on the academic core, fostered global perspectives, emphasized autonomy, and gave a prime place to entrepreneurial skills. Both schools supplemented these foci with attention to sports, which enriched their educational projects. Also, both schools gave less attention to intra- and interpersonal dimensions such as students’ inner life or civic and political engagement. All these features more or less aligned with the two infrastructures shaping curriculum innovation and the meritocratic ideals that underlay these structures.

The predominant vision of the human person underlying *Guacolda*’s curricular model was different. The Mapuche and the Catholic ideas of the person are more spiritual and communitarian than the secular ideas that underlay the prior schools’ curricula. Religion was seen as the core of the culture, and introducing students to this culture was seen as central to the educational experience. Even the technical-vocational tracks were developed with this cultural lens, combining an opportunity of future employment with cultural identity.

This particular vision of the human person assumed a community built around this vision that socialized students into it, which was challenging. *Guacolda*’s community was respectful of all –Mapuches and non-Mapuches, Catholics and non-Catholics– but it was based upon something different than the (predominant) liberal idea of tolerance. This idea tends to assume that schools are not the place for socializing into any particular vision (Gutmann, 1987), which partly explains why interviewees from *Dunalastair* and *San Nicolás* perceived less emphasis on the social-cultural and spiritual dimensions of the person at their schools. For Taylor (1994), however, this liberal approach has tended to generate homogeneity and identity non- or misrecognition, which are at the root of the last decades’ drive for interculturalism. Relatedly, Levinson (2009) showed that empirical evidence regarding what type of school is best to offer

culturally-relevant education is ambivalent, with good examples that segregated, identity-based schools may be better for minorities than large schools based on the liberal ideals.

I believe that this first relation of affinity and opposition between *Dunalastair*, *San Nicolás*, and *Guacolda* indicates that focusing on mastery, creativity, or identity entails very different levels of complexity at present. In this sense, although Mehta and Fine (2015a, 2019) proposed mastery, creativity, and identity as the foci of the schools studied, they largely overlooked (or simplified) the challenges of identity. They saw their findings as bridging (a) the progressive Deweyan tradition and (b) the tradition that emphasizes the development of expertise in the disciplines (2019, p. 366). Their cases did not address challenges of identity recognition associated to learning. Their undeclared assumption was a liberal vision of the person that emphasizes individual autonomy, which Taylor (1994) deemed the heart of the current challenges regarding communitarian identities and recognition.

*Guacolda* is an extremely complex case of a school focused on identity. It combines an Indigenous worldview and the Catholic project within the Chilean market-based school system. However, precisely because of being so extreme, this case shows clearly some curricular dilemmas faced more subtly by most schools with a communitarian identity, be it based on culture, religion, another comprehensive vision, or an emphasis on the local context. For instance, Martinic, Anaya, and Torrendell (2009) studied 38 traditional Catholic schools (which are 15% of the Chilean K-12 schools) and found that most of them struggled with issues of identity due to the increasing technical requirements, broader secularization, and the market-based system. The latest committee on curriculum policy convened by the MINEDUC (2016b) recommended to train curriculum developers who gave more attention to cultural diversity and the local-regional contexts because –as reviewed in Chapter Two– this was not occurring otherwise.

Modernity need not mean homogeneity, but the curricular challenges associated with diverse identities and worldviews are very complex, as critical curriculum scholars have repeatedly pointed out during the last decades (Apple, 1979, 2018; Díaz-Barriga, 2005; Spring, 2015). Their criticisms are especially salient as many of the global trends espoused by transnational organizations now are toward more focus on cognition, the scientific mindset, and universal (versus local) perspectives centered on the individual (instead of communities). At least part of the opposition to globalization may have roots in the inability of many global leaders to respond with sensitivity to the erosion of local or communal identities (Taylor, 1994, 2007).

The second relation of affinity and opposition in Figure 8.1 contrasts *San Nicolás* and *Guacolda* with *Dunalastair*. In the first schools, constructing a life project was perceived as one of the most emphasized cross-curricular dimensions, whereas at *Dunalastair* it was perceived as one of the least emphasized dimensions (see Table 8.1). This perception was despite the fact that the latter school had the largest time allotment for counseling or *curso* council in 11<sup>th</sup> and 12<sup>th</sup> grades (three class periods per week, see Table 5.2). I believe that this second relation of affinity and opposition relates to social context, youth experience, and meaning.

In Chapter One, I asserted that the need to reshape the curriculum is more pressing in secondary schools than in primary schools. Among various reasons, this was because high school is a transition between universal education and optional pathways that involves increasingly more complex issues related to students' identities and their futures. Relatedly, Gysling (2016) expressed concern that Chilean high school reforms neglect the crisis of meaning at this level due to the level's orientation to an uncertain future that is highly determined by students' socioeconomic status. Along this line, I believe that the curriculum innovations at *San Nicolás* and *Guacolda* shared an explicit attention to the students' immediate social context and proposed significant meaning, which sets them apart from *Dunalastair*.



As mentioned in Chapter Five, *Dunalastair* decided to re-design the curriculum of the middle and the lower high school due to perceived pervasive problems in grades 5-9 and aiming to teach 21<sup>st</sup> century skills. Problems perceived were that –generally speaking– students got bored in these levels, had important discipline problems, and studied less (which led to a decline of their grades). Outside of the school, appointments with psychologists and professionals of the like were increasing. In this context, readings about adolescence, learning, and the lack of space for creativity in schooling (Robinson & Aronica, 2015) convinced the administration of changing the model. They designed something that promotes active learning and develops 21<sup>st</sup> century skills; a smoother transition between their transdisciplinary elementary school (i.e., without disciplinary distinctions) and the specialized upper high school.

*San Nicolás* and *Guacolda* did not seem to have *Dunalastair*'s “pervasive problems” in the lower high school, however. In general, the experience shared by interviewees and that I observed was of satisfaction at the school. The most compelling evidence of this point at *San Nicolás* was that, against many teachers who thought that the school day was indeed too long, students consistently shared that staying until 5:40 pm or later was fine. A teacher said, “[The students] are happy; they love the school.” At *Guacolda*, a recent survey on issues of sexuality indicated that students trusted their teachers over their peers to talk about their sexual concerns. Of course, both schools had to deal with typical conflicts of adolescents, and the social contexts entailed tackling many complicated issues. Yet, disciplinary problems were not a major issue and I did not find significant evidence of the crisis in the lower high school perceived at *Dunalastair*.

The experience at *San Nicolás* and *Guacolda* is very uncommon, though. As a teacher from *Guacolda* commented, “In other schools [the same Mapuche students] disturb and fight, but here they don't ... We have something special here.” The U.S. studies from the early 1980s reviewed in Chapter Two, which researched sets of schools representing the diversity of U.S.

schools (not unique schools like *San Nicolás* or *Guacolda*), found something similar to the crisis perceived at *Dunalastair*. For instance, Goodlad (1984) theorized a large disjunction between youth culture and high school culture. He reflected that “somewhere ... down in the elementary school, a subtle shift occurs. The curriculum ... comes between teacher and students” (p. 80).

In Chile, two recent publications touched upon this issue. Gysling (2016) reflected that the high school context imposes on the students the question of what to do next, forcing instrumental questions like “what’s the use of studying this or that?” She claimed that many teachers experienced this situation as a lack of student motivation to learn, which led them to think that the curriculum was distant from students’ interests and devoid of meaning. Molina (2008) identified that some students experienced public high school as a pathway to something else (i.e., with a future projection), while others did not. These diverse experiences tended to be distributed socioeconomically, with the working and lower-middle class students going through high school without much future projection. In other words, general research on the student experience points toward a crisis akin to that identified at *Dunalastair*.

What explains the different experiences at *San Nicolás* and *Guacolda*? A plausible explanation is that both schools innovated by giving explicit attention to the students’ social context and, thus, designed deeply-contextualized, meaningful high school experiences. At *San Nicolás*, the culture of high expectations that integrated the whole curriculum created a joyful feeling of striving together for a better future. On top of this, the areas of choice and the study of foreign languages with international teachers expanded the students’ imagination about possible futures. As a teacher put it, “In the mix of rural and urban students there is a wonderful mixture of cultures ... On top of this, the languages teach the rural students that there is a whole world out there to discover.” This curriculum implied that the general high school experience at *San Nicolás* was full of meaning and projected into the future.

At *Guacolda*, the experience of identity reconciliation did something comparable to what the choice and broadening of horizons did at *San Nicolás*. The school fostered a sense of inner pride that was very meaningful, even if the academic results made it difficult to continue to higher education and most students transitioned directly to work. In a 12<sup>th</sup>-grader's words:

In my almost four years here, I haven't learned only how to have good grades ... The school teaches us values; values that I didn't have before. The school teaches us to respect our culture and be proud of it. The schools where I studied before weren't like that.

Behind this experience were a contrast with another school experience, hours of learning an alternative vision of the Chilean history, praying and sharing Mapuche and Christian traditions, and rescuing the memory of the family and the community.

*Dunalastair* certainly tackled the problems perceived out of concern for its students and their future. However, the innovations did not deepen much on their social context and its inherent tensions. For instance, how much of the perceived boredom, discipline problems, less dedication to studies, or growth of external psychological supports in grades 5-9 related to the particular elite context under the current neoliberal socioeconomic system? In the U.S., Luthar (2003) found that 6-7 grade children of the affluent manifested more problems of anxiety and depression than others due to excessive pressures to achieve and isolation from their parents. If this is the case with the youth of the Chilean elite, will an emphasis on STEM, developing 21<sup>st</sup> century skills, and active learning solve the perceived problems in the long term? Evidently, this question does not have a black or white answer, and by no means I am suggesting that emphasizing science, developing 21<sup>st</sup> skills, and promoting active learning are not critical for the future. The point is that, as Shirley (2017) suggested, perhaps the primary curricular issue is not developing creativity or entrepreneurial skills, but helping students to find meaning.

One aspect of meaning, as evinced by *San Nicolás* and *Guacolda*, relates to a broad experience of social fraternity, which at *Dunalastair* was a thorny matter due to the elite context. The school made an effort to instill fairness as core value, but this rarely went beyond the school gates. A teacher commented that in that context, “[The students] don’t question much because they live inside a bubble ... You have students who don’t know ... let’s not even talk about Plaza Italia [downtown Santiago] ... they haven’t even been below Manquehue” (still within the affluent suburb of Las Condes). Students in a focus group remembered a teacher who left the school: “She was a person ... who told us how reality in Chile really is ... She helped us to face the reality, because, honestly speaking, we live in this bubble.” Informally, an administrator shared that tackling this challenge without fostering guilt for being wealthy or a *savior mentality* was tough. In practice, they did not know how to address it, especially after the last years’ push for holding all elites accountable for the country’s inequalities and power abuses.

Another area deeply related to meaning is the arts. At *San Nicolás*, the arts program was very broad, especially the musical extracurriculars with over 300 students participating (see Figure 6.2). *Guacolda*’s arts program was not particularly special, but the broad emphasis on culture implicitly emphasized the arts in various ways. At *Dunalastair*, however, art or music were optional from 10<sup>th</sup> grade on (despite being mandated for college-bound upper high school). Art teachers expressed that they had a niche that was valued by the administration (see Table 5.4). I observed a class of the 10<sup>th</sup> grade art minor at Las Condes and was impressed by the quality of the work. Yet, very few students took it: 7 out of 90. A 10<sup>th</sup>-grader (not enrolled in the art minor) commented, “Art is an elective ... and one wants it, but it’s not a need ... [So] one prioritizes other things.” Not surprisingly, these “other things” were chiefly more math, more science, or economics, which were instrumental to the students’ preferred tracks for higher education.

As indicated at the beginning of this section, I believe that this second relation of affinity and opposition around social context, youth experience, and meaning is less clear in the data than the first one. Confirming it would require a deeper study of students' experiences because the rural or urban context also could be a major factor on this matter. If I am correct, nonetheless, this relation indicates that giving explicit attention to all aspects of students' social context is central for developing a meaningful whole curriculum. Also, it may indicate that –at present– giving attention to the social context is particularly challenging with the elite.

### **Limitations, Implications, and Future Research Directions**

The discussion of findings across the cases in the prior sections made apparent that this dissertation had several limitations. Among them, I believe that three were most significant. The first important limitation related to the cases studied. Case selection received considerable attention, including a trip to Chile to visit candidate cases and a careful review of these cases (see Appendices B and C). However, only during the actual fieldwork it became clear that *Dunalastair's* recent transformations involved so many simultaneous changes and were so complex that it will take years to actually know what will be their results in the future. Similarly, I only understood the tensions at *Guacolda* after interviewing several people and comparing their opposed views about what the school was doing. The study yielded valuable findings despite this limitation, but studying a more mature version of *Dunalastair's* recent innovations or a stage of *Guacolda* in which there were less internal tensions probably would have offered richer versions of their cultures of curriculum construction.

The second –and perhaps most critical– limitation related to the trade-off between breadth and depth that cut across the whole dissertation. The study's purposes and research questions were intentionally broad. This led to understanding what each school taught as a whole and how it arrived at this curriculum over time, but this broad approach came at the cost of simplifying (or

studying superficially) some more specific aspects. For instance, the research could have delved more deeply into each school's concrete, technical process of developing new study programs and plans –from the first ideas to their implementation and approval by the MINEDUC– but it did not. An in-depth understanding of this process entails another type of study, more focused on the designers, the design instances, and the documents produced during the design process.

The third significant limitation was studying Chilean schools and then writing up the cases in English and for a U.S. audience. Although this limitation was clear since the beginning, I did not fully realize its burden until the fourth stage of data analysis, when I moved from the Spanish data to writing up the cases in English. Linguistically, the challenge became evident when I began to translate interviewees' ideas and quotes. For several concepts or powerful phrases, I could not find a direct, equally-powerful English expression. Most importantly (I think), several contextual factors were “lost” in this translation. I did my best at explaining the critical ones, but others I had to omit or mention briefly because more details would have made Chapters Five through Seven too long. One of these factors was the effect of the latest educational policies on the life of the schools. I mentioned the policies, but Chileans who read this work will see connections that a U.S. audience will inevitably miss.

Notwithstanding the prior limitations, this dissertation has many important implications. First, it confirms the importance of giving attention to what happens with the whole curriculum at the school level, which may be quite different from what is mandated by the curriculum policies. This is key because, as mentioned in Chapter One, Chilean curriculum scholars have chiefly focused on policy debates and “scholarly production that is independent of these reforms has had little development” (Magendzo et al., 2014, p. 174). For instance, two of the three studied schools did not teach religious education in grades 10-12 (although it was mandatory); both schools with college-bound tracks did something different than what the MINEDUC mandated for philosophy;

and the three schools' plans for promoting citizenship education were not very relevant from the perspective of the whole curriculum. Except at *Guacolda*, the focus was on the academic core and on fostering autonomy, a global perspective, and entrepreneurial skills.

I mention these specific discrepancies between the national curriculum guidelines and what happens at the school level because the Chilean government issued a new 11-12 grade curriculum framework as I was writing this section in May 2019 (see Footnote 13). This new framework reduces the mandatory weekly class periods for college-bound students from 27 to 14, so college-bound and technical-vocational students have the same mandatory courses (see Table 1.1). This means that some courses that were mandatory for the college-bound students will be optional (e.g., art and physical education). History and religious education, which were mandatory for both tracks, will become electives; and citizenship education and philosophy, which were not mandatory for both tracks, will become mandatory for all. The public's reaction has been mixed, with some applauding that citizenship education and philosophy will be mandatory for all, and others complaining that history will become an elective. This dissertation shows that what happens at the school level may be different from these guidelines, so there needs to be as much attention to the former as to the policy level (Magendzo et al., 2014).

A second significant implication of this dissertation, aligned with the first one, is shedding light on the complexity of what happens with the curriculum at the whole school level. The latest committee on curriculum policy convened by the MINEDUC (2016b) stressed (a) the importance of the flexibility that schools have to contextualize the curriculum and develop their own study programs and plans, and (b) the urgency of strengthening the schools' capacity to use this flexibility. Yet, Chile does not have much expertise on this matter. There are very few case studies available on the development of a PEI and study programs and plans aligned with this PEI (Erazo, 2001; Espinoza et al., 2018; Milla, 2004). In general, there is a gap between the policy

level (i.e., the curriculum frameworks) and teachers' pedagogical work, which conveys the idea that teachers' main task is to implement the programs and plans designed by the MINEDUC. *De facto*, this situation ignores the schools' space for contextualizing the curriculum. In such situation, this dissertation offers three case studies to promote discussion about the curriculum and curriculum reshaping at the whole school level.

The cases reveal the complexity of what occurs –or may occur– at this level and, thus, the multiple capacities that need to be trained (or brought together) to contextualize the curriculum. *Dunalastair* reshaped the curriculum to develop 21<sup>st</sup> century skills, giving especial attention to constructivist research on *how* students learn. *San Nicolás* innovated with bold realism regarding how to promote flourishing and social mobility for its student population, given the discipline-based structure of knowledge. *Guacolda* developed a countercultural curriculum that institutionalized a dialogue between the Mapuche and the Western cultures. Together, the three cases showed that curriculum reshaping entails dilemmas that require deliberation to make the most appropriate choices in each context.<sup>93</sup> Inevitably, schools have to prioritize some aims and contents over others based upon their vision and values (Mehta & Fine, 2015b). Such deliberation has to attend to the school's philosophy, the disciplines, the learning sciences, the school context, the characteristics of the student population, administrative and political factors, etc. The previous section highlighted the challenges faced at present by traditional communitarian identities and the shared challenge of helping youth to find meaning.

A third implication of this work relates to the concrete changes in the *grammar of high schooling* developed at the schools studied. Except for *Dunalastair's* 7-9 grade integrated areas and the associated end of academic departments, the schools did not develop groundbreaking

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<sup>93</sup> Cuban (2001) made the point that schools face (a) *problems* that need a solution, and (b) *dilemmas* that cannot be solved but need to be managed, deliberated.



changes. However, they devised interesting transformations (or emergent transformations) that invite us to imagine other possibilities of curriculum reshaping. Here are four examples.

1. *A four-subject common core and two types of specializations.* *San Nicolás* extended the time spent on math, language, science, and history, and implemented *learning by levels* in these subjects to guarantee that all students attain proficiency in the learning standards. Aside from this core that takes 55.8% of the school time, students have two types of choices. They choose (a) an upper high school track that is akin to a college *major*; and (b) two options of foreign languages, one sport, and one artistic pursuit, which are akin to four college *minors* (throughout grades 7-12). This curriculum makes English an elective and drops the idea of having general overviews in physical education and art (or music). Instead, it invites focus to attain quality. This type of curriculum is common in the U.S., but it is new in Chile, where the high school experience is more scripted (i.e., with less space for personal choices) and *curso*-based (i.e., more communitarian).

2. *Interdisciplinary projects to apply knowledge and develop skills such as collaboration.*

The studied schools showed two alternatives for introducing this change in the grammar of schooling. *Dunalastair* developed a lower high school (grades 7-9) largely based on projects in three integrated areas. Accordingly, teachers were not grouped by academic departments but by integrated areas. *San Nicolás* did not go so far; it invited teachers from different departments to develop these projects whenever it was appropriate and assigned these teachers the time needed to design and develop the corresponding project.

3. *Connections between the college-bound and the technical-vocational high school models.*

In different ways, the three schools were doing some of this. *Dunalastair* was developing a “more technical” college-bound high school than the traditional Chilean college-bound high school. This meant more practical, hands-on work that helped students to see real-

world applications of the contents studied (especially in STEM). At *San Nicolás*, the technical-vocational tracks were giving more importance to the scientific base of their respective trade. The college-bound tracks were not engaged in creating this bridge when I visited the school, but math and science educators talked about the need to move toward more applied learning, which could be done through collaboration with the technical-vocational tracks. Interestingly, although *Guacolda* was a technical-vocational high school, its emphasis on cultural dialogue resulted in one of the most advanced humanities programs among the three schools studied. This program offered a model to think about the place of the humanities in technical-vocational education, which is always a challenge. Altogether, the three cases suggested that perhaps the future of secondary education relates to combining the best of both worlds astutely. This combination will be easier now because the new 11-12 grade curriculum framework mandates that students in both tracks have the same mandatory core courses.

4. *Ways to address identity issues.* Beyond *Guacolda*'s focus on socializing into a particular identity, the cases showed some ways to prepare all students for deep-level dialogues about who they are. At *Guacolda*, the religious education class centered on sharing students' beliefs (rather than on a detached study of religion) attained this goal. The same was true about courses like *interculturalism and development* in which students compared and assessed different cultures' lifestyles and development models. Although more informally, the exchange programs at *San Nicolás* also fostered dialogues about identity. The presence of European and Asian students in the school prompted questions about their culture and, in contrast, about the local culture to be shared with them.

Finally, this dissertation invites several future directions for the study of curriculum innovation. First, more research is needed that focuses on specific aspects of an innovative

school's culture of curriculum construction. In line with the seven characteristics discussed previously, there could be more specific investigations about how these schools move from the analysis of student data to curriculum reshaping. For instance, what was *Dunalastair's* concrete process of identification of problems in grades 5-9, and how did the school go from these problems to deciding to discontinue the IB MYP and design something different for these years? Likewise, studying the ingenuity for curriculum reshaping exhibited by some people at the three schools would help to better understand this trait in order to promote it and train it.

Second, the earlier contrasts between the three school models invite more research on how to educate the cross-curricular goals related to the spiritual, social-cultural and civic dimensions of the person. If liberal ideas assuming that schools are not the place for socializing into a particular worldview are replacing what Marticorena (2013) termed the *morals of the 1990s Chilean middle class*, how will Chilean education approach these goals?<sup>94</sup> Perhaps the cross-curricular goals need a revision and the country has to discuss more broadly the intra- and interpersonal aspects of education (i.e., the place of culture, values, communitarian worldviews, etc.). These aspects relate to the identity axis in the typology of curriculum innovations in Figure 8.1, which is a challenge at present. In any case, Chile decided to emphasize citizenship education since 2015: all schools must have a plan to promote it (MINEDUC, 2016a) and there will be a mandatory subject in grades 11-12 (two 45-minute periods per week). The studied schools showed that this dimension may be secondary, however, with the schools meeting the requirements but prioritizing the academic core, autonomy, and entrepreneurial skills.

The prior direction for future research connects with the idea of whole-person education. Such concept is not widely used in the U.S., but 93.5% of the schools in Chile declare an

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<sup>94</sup> See subsection *Place of the National Cross-Curricular Goals* in Chapter Two.

orientation toward whole-person education (Villalobos & Salazar, 2014). Among the schools studied, both *San Nicolás* and *Guacolda* stated this orientation in their PEIs, although with diverse meanings. At *San Nicolás*, whole-person education meant multiple options (in sports, the arts, etc.), so students could choose and flourish. At *Guacolda*, it meant that all students were invited to grow holistically (i.e., socially, spiritually, etc.). In line with the prior question about how to educate the cross-curricular goals related to the spiritual, social-cultural and civic dimensions, this dissertation invites more research on what whole-person education means in Chile today. The literature indicated that, around the early 2000s, Catholic schools were considered the prime example of whole-person education.<sup>95</sup> This study suggests that this idea may have changed with the country's broad cultural transformations of the last decades.

Third, the discussion about the relations of affinity and opposition among the three curricular models showed that more research is needed about the student experience at these innovative high schools. In particular, it would be useful to have more studies about how these schools help students to find meaning and if the innovations relate to this particular issue. Among the three cases, the student experience at *San Nicolás* seemed particularly significant because this school shared *Dun alastair*'s concern for offering access to the best contemporary knowledge (and a global perspective) and *Guacolda*'s concern for students' immediate social context. Thus, studying the student experience at *San Nicolás* could offer valuable insight about the tensions and challenges of complex curriculum innovation that couples the two concerns.

Fourth, Chile could use more research on curriculum innovation and the use of information and communication technologies (ICTs). The three schools used technology; most

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<sup>95</sup> For instance, the *Monte grande*'s three *innovative institutional projects* in the field of whole-person education were publicly-subsidized Catholic schools (MINEDUC, 2004). Similarly, the only empirical study on the attainment of the curriculum frameworks' cross-curricular goals highlighted what Catholic schools did on this matter (MINEDUC, 2001).

prominently *Dunalastair*, where all the 7-9 grade classrooms had several laptops and tablets for students to conduct searches (for the projects). However, none of the schools taught computer programming or the like, and interviewees did not think that the cross-curricular goals related to the use of ICTs were among the most emphasized (see Table 8.1). To some extent, this aspect was almost invisible in the schools' whole curricula described in Chapters Five through Seven. The most significant effort was an extracurricular on robotics at *San Nicolás* for 30 students (out of 1,400). What does this reality suggest regarding the future of high schooling and the curriculum in Chile? Certainly, more research on the place of technology in the whole curriculum is needed.

## EPILOGUE

### Looking Back on the Journey Behind This Study

In the Preface, I stated that the dissertation had a story without which it was not easy to fully grasp its goals. The story was that of a journey that began in Chile, continued in Boston, and included school visits in Canada, Guatemala, Spain, Colombia, and Mexico during 2016. The dissertation project was crafted during 2017, after these school visits. I would like to end by reflecting back on that journey. This means returning to the impressions after the international school visits, as well as to the experience at *Enrique Alvear*, the high school in Cerro Navia where I worked from 2011 to 2013 and where I decided to pursue a doctorate in curriculum.

As mentioned in the Preface, the 2016 school visits left me with three main impressions. First, several people who felt the need for change that I felt at *Enrique Alvear* were trying to innovate out of concern for the situation of education, so there were various innovations that deserved more attention from a curricular perspective. Second, these innovative schools had a lot of publicity and visits (like mine), but there were few rigorous, comprehensive studies of these schools' changes. Third, most of these efforts were driven by the last decades' findings of the learning sciences about how individuals learn to think (Bransford et al., 2000), so they were chiefly concerned for student acquisition of high-order cognitive skills. Other goals of schooling—such as moral development or the strengthening of democracy—received much less attention.

After finishing the dissertation, I think that the second impression applies to the three schools studied here; the third one does not. The first impression was a premise of the study so it does not make sense to comment on it. At the three schools, I witnessed at least one group of visitors while I was conducting the fieldwork in early 2018 (at *San Nicolás*, I saw two groups during my 10 school days there). Most visitors were administrators from other schools who wanted to see what had been done in order to replicate it in their own schools. In all cases, the

person who guided the visit shared the corresponding school's story of innovation, and the visitors seemed spellbound both by the narrative and by what they saw.

However, in line with my impression after the 2016 school visits, works on the three schools tended to promote the school experience (rather than analyze it critically) or focused on one aspect or dimension of what the school taught (overlooking what occurred more broadly). At *Guacolda*, all the literature promoted the intercultural experience (Highleyman, 2014; Stafford, 2011), explored Mapuche students' identity construction (Garrido, S., 2015), or discussed the challenges of teaching Mapudungún at the high school level (Programa EIB, 2013), ignoring the schools' academic challenges. At *Dunalastair*, the only work on the latest changes systematized the 2016 implementation of project-based learning in grades 5-6 at Peñalolén, highlighting the excitement and sense of mission of the campus' administrators and two teachers interviewed (Peirano, 2017). Most studies on *San Nicolás* focused on the leadership style behind the school's impressive achievement gains (Balbontín & Rivas, 2018; Agencia Calidad, 2019). The only exception to the prior characterization was a study of *San Nicolás* by Contreras and Bellei (forthcoming) for a larger research project on high school improvement. Contreras and Bellei offered a comprehensive account of the school's project and its historical development, finding a complexity akin to that described and conceptualized in Chapter Six.

Based on this second impression, my dissertation conducted the type of comprehensive analysis of curriculum reshaping that I lacked during the 2016 school visits. I did my best to bridge the three schools' narrative accounts of their changes with curriculum studies, the field that historically has addressed issues of whole school design. Overall, I found that –when studied comprehensively and historically– curriculum reshaping looked far more fragile and complex than what the schools acknowledged. In part, this gap existed because schools seldom considered themselves holistically, including all that they taught and how it had evolved over time. Also, I

found that the fragility and complexity were partly due to two major factors that conditioned the change efforts: (a) people's expectation that schooling will secure a better future (or status) for their youth, and (b) the production and distribution of specialized knowledge.

The three schools reshaped –or were reshaping– the curriculum differently. This was because they embraced diverse philosophies, they had different capacities (collectively speaking), and their contexts and student populations demanded different adaptations. Thus, each school exemplified a different type of curriculum innovation and presented dilemmas specific to that particular type of reshaping. *Dunalastair* presented dilemmas of embracing a fully-constructivist view at present, such as focusing on *how* students learn over *what* they need to learn and risking that instrumental concerns linked to the (alleged) future of the economy become the main driver of educational change. *San Nicolás* presented advantages and drawbacks of devising a curriculum around specialization (i.e., departmentalization) and choice. *Guacolda* presented possibilities and inherent challenges of integrating culture and religion into the curriculum.

Although *Dunalastair* and *San Nicolás* were very different from each other, they shared an alignment with the two above-mentioned factors. Their innovations focused on the academic core, fostered global perspectives, emphasized autonomy, and taught entrepreneurial skills. These foci set *Dunalastair* and *San Nicolás* apart from *Guacolda*, which struggled with the modern and meritocratic ideals that underlie the two aforesaid factors. Chapter Eight discussed how this relation of affinity and opposition illustrates the complex challenges faced at present by many educational projects focused on a communitarian identity, regardless of whether they are based on culture, religion, another comprehensive vision, or an emphasis on the local context.

On the other hand, although *San Nicolás* and *Guacolda* also were very different from each other, they devoted a careful attention to their students' social realities and devised deeply-contextualized, meaningful high school experiences. *San Nicolás* cultivated a culture of high



expectations that, along with the multiple areas of choice, created a joyful feeling of striving together for a better future. *Guacolda* fostered identity reconciliations that healed Mapuche students' low self-esteem and helped them to project themselves into the future, even if most transitioned directly to work instead of continuing on to higher education. This attention to students' social context set *San Nicolás* and *Guacolda* apart from *Dunalastair*, which struggled with educating the youth of the elite in the current situation, full of pressures to achieve.

The described findings indicate that the third impression after the 2016 school visits –that most innovation efforts were mainly concerned with the development of cognitive skills– does not really apply to the dissertation's set of cases. The cognitive focus existed, but its degree of intensity varied across the schools. In this sense, equating innovation with a focus on cognition may be simplistic; such a focus depends largely on what is understood by innovation and, thus, what school models one chooses to look at. The dissertation shows that curriculum innovation is yet another field where the enduring educational *paradigm wars* continue to be fought (Gage, 1989). Accordingly, this work indicates that curriculum reshaping must include explicit attention to and deliberation of the ideas and beliefs grounding the innovation initiative (Mehta & Fine, 2015b). Innovation can mean many things. It can occur in various ways, in diverse settings, and for very different reasons.

Despite the finding that innovation was not solely focused on cognition, Chapters Five through Seven showed that most non-cognitive areas such as values education were assumed to be a natural byproduct of the schools' warm cultures. At *Dunalastair*, values education was understood as an effort to instill fairness, with sport as a core means to teach this value. There was expectation that the new 7-9 grade emphasis on collaboration due to project work will strengthen this moral teaching, but the school had not analyzed the values implicitly fostered through the hidden curriculum (largely related to competition and the conservation of social

status). At *San Nicolás*, it was assumed that the social mix of students and a weekly class period of civic education in grades 9-10 fostered a democratic vision, without reflection of the values *de facto* promoted through the school's meritocratic narrative. At *Guacolda*, the supposition was that the focus on cultural identity and dialogue educated youth concerned for the common good. My impression after this study is that, although the school's concerns went beyond teaching cognitive skills, innovation in non-cognitive areas is still largely an open-ended challenge.

As indicated earlier, the journey behind the dissertation began with the 2011-2013 experience at *Enrique Alvear*. In the Preface, I shared that this experience was shaped, in the first place, by the difficulty of socializing marginalized youth into society's mainstream codes embedded in the school structure. Around 50% of the students who began 9<sup>th</sup> grade at *Enrique Alvear* did not graduate from high school, generally because they did not adapt and dropped out. Second, the experience was of the despair that led the students to destroy parts of the school during the 2011 lockdown, when protesting the country's highly privatized and de-regulated educational system. These experiences prompted my concern for what the school offered to the students comprehensively, which led me to study a doctorate in curriculum.

After completing this dissertation, my thoughts are that there is no way around socializing youth into the society's mainstream codes. This is what schools do. This socialization can occur in multiple ways, though, and the challenge is to do it in a way that fosters freedom and flourishing instead of creating resentment or a lack of meaning that prompts students to drop out of school (or destroy it, as occurred at *Enrique Alvear* in 2011). A key aspect of this challenge, I believe, is devising ways of schooling that do not mean alienation from students' home and neighborhood cultures but bridge these cultures and the society's mainstream codes, like *Guacolda* did. Another key aspect of the challenge is to couple these cultural bridges with deep academic and/or vocational learning, like that promoted at *San Nicolás* and *Dunalastair*.

In this vein, the three school-cases yielded valuable ideas for curriculum reshaping at a school like *Enrique Alvear*. Just like at *Guacolda*, many of *Enrique Alvear*'s students felt discriminated and suffered from low self-esteem. This was due to the marginalization of Cerro Navia (the school's municipality; among the poorest of Santiago) and also because many students were Mapuches too.<sup>96</sup> Accordingly, *Guacolda*'s goal of strengthening students' self-esteem by teaching them to feel proud of who they are also could apply to *Enrique Alvear*. The school could design comparable, contextualized history, language, and religious education study programs that could spark similar dialogues about personal histories, identities, and beliefs. Community leaders could co-teach these courses. Like at *Guacolda*, an innovation of this kind could make the school experience more meaningful and help students to project themselves into the future.

Two critical elements of *San Nicolás*' curriculum reshaping could make a difference at *Enrique Alvear*. First, *San Nicolás* had an uplifting culture that promoted high expectations for all. At *Enrique Alvear*, I am not sure that all educators (including myself) had such expectations. There was care for all, but this is not the same as believing that all students can learn. Moreover, I now think that there was a lot of paternalism, with severe consequences regarding the school's capacity to unleash students' potential. Working on this point would require revising the school's hidden curriculum and teachers' beliefs that grounded it.

Second, *San Nicolás* expanded the students' imagination about possible futures through the study of foreign languages with international teachers and exchange programs. *Enrique Alvear* did some of this through a program called *Semana Empresa*. For a week, this program located each 11<sup>th</sup>-grader in a business with a worker-tutor who showed the student the world of work in the corresponding workplace. Following *San Nicolás*' example, *Enrique Alvear* could

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<sup>96</sup> According to the latest census (from 2017), 15% of the population of Cerro Navia (i.e., around 20,000 people) self-identify as Mapuches (<https://resultados.censo2017.cl/>).

expand the offering of ways to expose students to other realities through partnerships with national or international institutions. These alliances could include sports, the arts and music, etc.

One could think that innovations at *Dunalastair* do not offer lessons for a school like *Enrique Alvear*, due to the vast differences in context. Nonetheless, Chapter Five showed that interdisciplinary projects are motivating, teach critical skills, and allow students to see real-world applications of otherwise abstract knowledge. In a place where the first challenge is student retention, this method could increase student engagement in several subjects. For instance, *Liceo América*—a working class technical high school in the city of Los Andes (50 miles North of Santiago)—implemented interdisciplinary projects in grades 9-10 with the support of *Dunalastair*. This work began in 2018, and the changes in student attendance, motivation, and achievement were so impressive that within a year they became newsworthy in two national papers.<sup>97</sup>

Beyond these ideas for curriculum reshaping at *Enrique Alvear* or a similar school, the main lesson of this dissertation is that curriculum innovation is possible within the current curriculum regulations. However, it requires a culture that supports *school-based deliberation of the curriculum as infrastructure*, which is scarce. The cases presented provide concrete curriculum changes to imitate, but also examples of how to foster such a culture in spite of many challenges. This requires attending to the school's context and the actual students, thinking of new possibilities that will serve these students well, and being ingenious, bold, and critical to use the flexibility available to for the needed curriculum reshaping.

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<sup>97</sup> <https://www.lacuarta.com/cronica/noticia/liceo-simce-celu-copiando/375547/> and <https://www.biobiochile.cl/noticias/nacional/region-de-valparaiso/2019/05/20/liceo-detalla-su-exito-en-simce-eliminar-asignaturas-tradicionales-permitido-copiar-y-usar-celular.shtml>

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## Appendix A: The Organizational Structure of a Typical Chilean High School

Most Chilean high schools organize as in Figure A.1. The *sostenedor*, who can be a person or a legal entity such as a foundation, is the ultimately responsible for the school. The *sostenedor* hires the principal, who leads the school on a daily basis. For the curriculum matters that are this dissertation's focus, two key administrators are the *jefe de UTP* (or academic coordinator), and the *general inspector*. The latter is in charge of student affairs, which include school discipline and the coordination of *profesores jefe*. These specific teachers are responsible for the *cursos*, and typically meet with them at the beginning of each school day, in addition to having some class periods per week for addressing *curso*-level issues. This structure also implies that *profesores jefe* usually are the first mediators between the school and the parents.

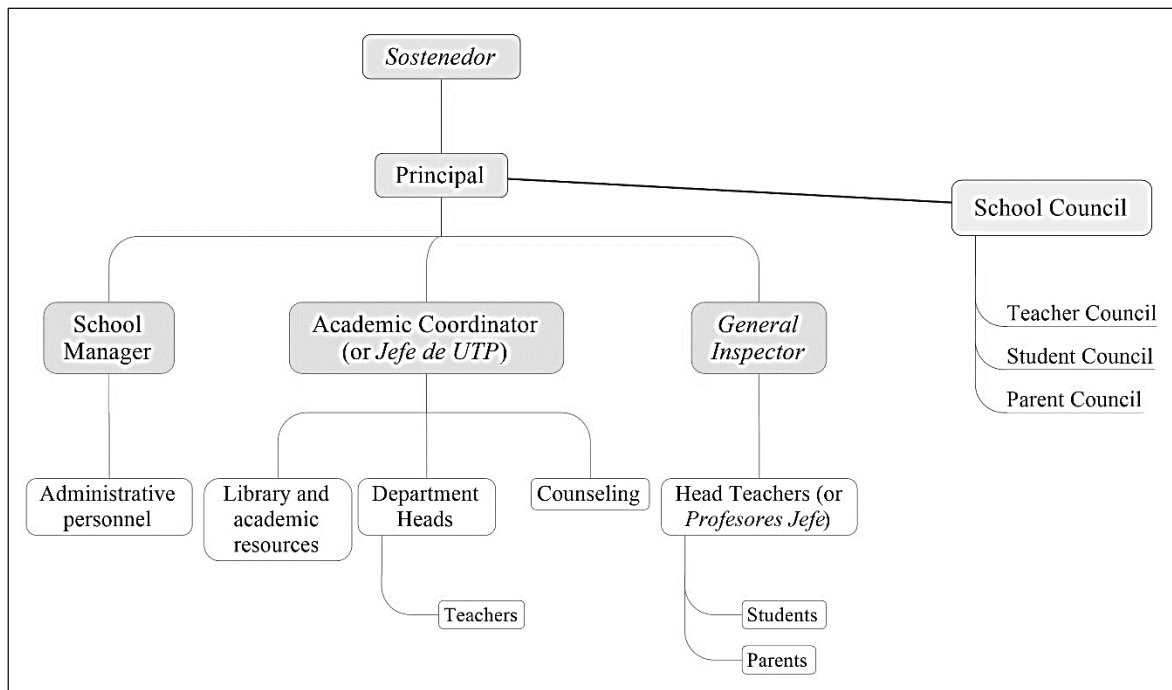


Figure A.1. Organizational chart of a typical Chilean high school.

## Appendix B: Rubric for School Visits Before Case Selection

### A. Information prior to the visit

1. *Contact*. How did I get to this school? Who contacted me, and what is my relationship with this person?
2. *Previous relationship*. On the one hand, what is my knowledge of the school prior to the visit? Do I have any relationship with the school or people related to it? On the other hand, what does the school know about me? How does this influence the forthcoming visit, and their potential answer to a proposition of mine for conducting research there?

### B. General description of the school

3. *General information*. Number of *cursos* and students from 7<sup>th</sup> to 12<sup>th</sup> grade (by level). Number of teachers in these grades (and how they are organized). General organization of the (high) school. Is upper secondary education college-bound or technical-vocational? What administrative roles they have? What are the working teams for these grades?
4. *Demographics*. Where do students and families come from? Socioeconomic status and *vulnerability index*. Characteristics of the school area and its families (cultural, social, religious, ethnic, etc.).
5. *Academic results*. What have been the school's average scores in 8<sup>th</sup> and 10<sup>th</sup> grade SIMCE during the last years? What is the school's *achievement categorization*?
6. *Sostenedor*. Who is the *sostenedor*, and what is his/her/its daily relationship with the school? How much is he/she/it involved in the PEI and curriculum issues?
7. *Networks*. In what networks does the school participate? With what goals and results?

### C. The school's curriculum

8. *Curriculum characteristics*. Does the school have its own study programs and plans? Are there any curriculum adaptations? What does the school do with the *class periods of free disposal*? What are the school's emphases?
9. *Curriculum documents*. What curriculum documents does the school have? PEI? Study programs and plans developed by the school? Others?
10. *Whole curriculum*. Do people at the school think comprehensively about the curriculum? In what contexts, and how often?



D. Innovations during the last decade

11. *General changes.* What major changes have occurred at the school during the last decade?

In general, what is done differently since the first student protests in 2006?

12. *Curriculum innovations.* What have been the curricular consequences of the previous changes (for the whole curriculum)? How many teachers, students, etc. have been involved in these changes, and how? Who led or has led these changes?

E. Ease or feasibility of conducting research at the school

13. *Interest for the investigation.* What would be the school's interest for a study like mine? Is there time for it? Does it fit with what they are doing, or does it interrupt it?

14. *Evidence available.* In addition to the curriculum documents, is there access to other evidence necessary for the study? Especially, is there access to historical data?

15. *Timing for research.* When do they begin the 2018 school-year, and how do they feel about an 8- to 10-day investigation at the beginning of the 2018 school year?

F. Reflections after the visit

16. *Key criterion for selecting the school.* Is the school reshaping its curriculum? Has the school community gained important learning from this process? Is there valuable practical knowledge to be retrieved for the advancement of schooling? What could be learned from this school's process for helping other high schools?

17. *People and networks.* Are there interesting teachers or administrators for doing valuable research? On what basis do I answer this question? Would it be valuable to connect with these people for the future (for strategic reasons, innovation, etc.)?

18. *Final reflection.* How do I think that the study would result here? What do I think that I would find? On a practical sense, would it work well? List the pros and cons of selecting this school for the dissertation:

Pros	Cons

### Appendix C: Summary of School Visits Before Case Selection

	School type	Upper secondary education track(s)	7 <sup>th</sup> to 12 <sup>th</sup> grade enrollment	Context	Social class predominantly attending the school	Curriculum emphasis in the institutional educational project (PEI)	Curriculum innovation(s)
A	Public	College-bound	320	Small town (Region of Maule)	Lower-middle	Autonomous learning that redefines curriculum coverage.	Implemented SERF, a Colombian school system that changes the school structure to attend to students' individual learning pace.
B	Public	College-bound and technical-vocational	1,400 (approx.)	Small town (Region of Ñuble)	Lower-middle	Track diversification, academic excellence, and openness to global issues.	Eight possible tracks for upper secondary school, four foreign language options, and an extended school day –until 6:00 pm– that allows for a wide variety of extracurriculars.
C	Public	Technical-vocational	450 (9-12)	Small town (Region of Araucanía)	Low	PEI built with student participation.	Working since 2013-14 in a leadership program (with the NGO <i>Educación 2020</i> ) that has brought to Chile a Mexican system of tutorial learning.
D	Public	Technical-vocational	100	Rural (Region of Araucanía)	Low	Community.	
E	Publicly-subsidized	Technical-vocational	400 (9-12)	Rural (surroundings of the Metropolitan Region of Santiago)	Lower-middle	Mindfulness and ecology as foundations of the curriculum (Buddhist).	A course on <i>interior ecology</i> and several <i>curso-</i> and school-level rituals promoting non-violence and sustainable relationships with nature.
F	Publicly-subsidized	College-bound	720	Urban (Metropolitan Region of Santiago)	Lower-middle	Social-emotional learning and openness to global issues through extracurriculars.	Religious education replaced for <i>development of the person</i> , more physical education, and multiple extracurriculars on technology and computer programming.

G	Publicly-subsidized	College-bound	351	Urban (Metropolitan Region of Santiago)	Middle	Whole-person education, and experiential learning (Catholic).	<i>Philosophy for children</i> in 7 <sup>th</sup> and 8 <sup>th</sup> grades, and three class periods per week (from 9 <sup>th</sup> to 12 <sup>th</sup> grade) for special <i>curso</i> -projects with the <i>profesor jefe</i> .
H	Publicly-subsidized	Technical-vocational	406 (9-12)	Small town (Region of Araucanía)	Low	Intercultural Indigenous (Mapuche) school sponsored by the Catholic church.	<i>Mapudungún</i> (Mapuche language), Mapuche culture as it relates to each of the vocational tracks, and interreligious dialogue (in religious education and the pastoral activities).
I	Private	College-bound	900	Urban (Metropolitan Region of Santiago)	High	Whole-person education and service (Catholic, Jesuit).	Longstanding tradition of whole-person education that has become institutionalized through sequences of holistic learning goals and out-of-school experiences, as well as a new school organization for supporting it.
J	Private	College-bound	525	Urban (Metropolitan Region of Santiago)	High	Whole-person education and community (Catholic).	Beginning to implement a Mexican system for tutorial learning (with the NGO <i>Educación 2020</i> ) and rebuilding the academic structure that was severely deteriorated.
K	Private	College-bound	220 + 540 (two campuses)	Urban (Metropolitan Region of Santiago)	High	British liberal arts education with a focus on excellence.	Moving from the IB toward project-based learning and three broad subjects (humanities; mathematics and engineering; and bio-sciences) as in <i>High-Tech High</i> .

### Appendix D: Matrix Relating the Research Questions' Foci and the Data Sources

		Dimension	Documents	Data source		Observations
				Semi-structured interviews		
				Individual	Group	
Study focus	1. The whole curriculum of each school at present, including its written and non-written aspects	1. School goals, values and vision; the general emphases.	General documents like the PEI, the school’s improvement plan, etc.	- <i>Sostenedor</i> - Principal - <i>General inspector</i>	- Students - Parents	Description of the physical spaces
		2. Areas or departments, and the associated course offerings and emphases (including electives and extracurriculars in the periphery of the curriculum).	Study programs and plans by grade and subject, lists of extracurriculars, etc.	- <i>Jefe de UTP</i> - Counselor - Department heads	-	Distinctive course offerings and/or school instances
		3. Relationship of the areas or departments with the whole school.	General documents, study programs and plans, and curriculum projects	- Principal - <i>Jefe de UTP</i> - Counselor - Department heads	- Regular teachers - Students	Instances of curriculum construction
		4. Approach to the national cross-curricular learning goals.	General documents, study programs and plans, and curriculum projects	- <i>Jefe de UTP</i> - <i>General inspector</i> - Counselor	- <i>Profesores jefe</i> - Students - Parents	-
		5. Silences in, or around the curriculum (i.e., non-addressed issues).	-	- <i>Jefe de UTP</i> - Counselor	- <i>Profesores jefe</i> - Students - Parents	-
		6. Hidden curriculum, and its manifestations	-	- <i>Jefe de UTP</i> - <i>General inspector</i>	- Students	Description of the physical spaces
		7. Relationship between the curriculum and non-written structures of knowledge, identity and status production (e.g., the growing culture of cognition).	Study programs and plans	- Principal - Department heads	- Regular teachers	Instances of curriculum construction

		8. Underlying idea of educated (and/or successful) person.	General documents and curriculum projects	- <i>Sostenedor</i> - <i>Jefe de UTP</i> - <i>General inspector</i> - Department heads	- <i>Profesores jefe</i> - Students	Distinctive course offerings and/or school instances
		9. Tensions around the curriculum (overt or hidden), and concrete instances of school-based curriculum deliberation for processing them.	-	- <i>Sostenedor</i> - <i>Jefe de UTP</i> - <i>General inspector</i> - Department heads	- <i>Profesores jefe</i> - Regular teachers	Instances of curriculum construction
	2. The process of reshaping the curriculum since the school began to innovate	10. Evolution of the whole curriculum since the school began to innovate.	General documents, study programs and plans, and curriculum projects	- <i>Sostenedor</i> - Principal - <i>Jefe de UTP</i> - Department heads	- Regular teachers - Parents	-
		11. Drivers of and narrative associated to the change.	General documents and curriculum projects	- <i>Sostenedor</i> - <i>Jefe de UTP</i> - Counselor	- Parents	-
		12. Relationship between the change and existing structures and guidelines (at the school-, system-, and societal-level).	Curriculum projects	- <i>Sostenedor</i> - <i>Jefe de UTP</i> - Counselor	- Regular teachers	-
		13. Tensions, and formal or informal negotiations associated with the change.	Curriculum projects	- Principal - <i>Jefe de UTP</i>	- <i>Profesores jefe</i>	-
		14. Historical processes of school-based curriculum deliberation.	Curriculum projects	- Principal - <i>Jefe de UTP</i> - <i>General inspector</i>	- Parents	-

## Appendix E: List of Data Sources Collected at Each School

School	Data source		
	Documents	Semi-structured interviews	
		Individual	Group
1. <i>Dunalastair</i>	<p>General documents (15):</p> <ul style="list-style-type: none"> <li>- 2002 Special singularity status decree</li> <li>- 2003 Strategy for implementing the PEI</li> <li>- 2005 PEI</li> <li>- 2006 &amp; 2017 Organizational charts LC &amp; PÑ* (3)</li> <li>- 2015-2017 Goals &amp; accomplishments LC* (3)</li> <li>- 2016 Linguistic policy LC*</li> <li>- 2017 PEI</li> <li>- 2017 <i>Dunalastair</i>'s goals &amp; vision in the website</li> <li>- 2017 Discipline code</li> <li>- Aerial maps of the LC &amp; PÑ campuses* (2)</li> </ul> <p>Programs &amp; plans (13):</p> <ul style="list-style-type: none"> <li>- IB principles for inquiry across the curriculum</li> <li>- 2015 IB curriculum for 5<sup>th</sup>-9<sup>th</sup> grades LC*</li> <li>- 2016 1<sup>st</sup>-8<sup>th</sup> grade school own study plan</li> <li>- 2016 Maps with the learning goals for 7<sup>th</sup>-9<sup>th</sup> grades for interdisciplinary project-based learning at PÑ* (3)</li> <li>- 2017 9<sup>th</sup>-12<sup>th</sup> grade school own study plan</li> <li>- 2017 Curricular continuum at <i>Dunalastair</i></li> <li>- 7<sup>th</sup>-9<sup>th</sup> grade comparative religions study programs (3)</li> <li>- 2015 Personal and social development program</li> <li>- Program for the 9<sup>th</sup> &amp; 11<sup>th</sup> grade civic day experiences</li> </ul> <p>Curriculum projects (16):</p> <ul style="list-style-type: none"> <li>- 2008 IB implementation plan for 1<sup>st</sup>-4<sup>th</sup> grades LC*</li> <li>- 2014 IB implementation plan for 5<sup>th</sup>-9<sup>th</sup> grades LC*</li> <li>- 2009 &amp; 2015 Feedback to LC on the implementation of the IB for 10<sup>th</sup>-12<sup>th</sup> grades* (2)</li> <li>- Presentation at 2015 mid-year administrators retreat</li> <li>- 2016 Learnings from implementing interdisciplinary project-based learning in 5<sup>th</sup>-6<sup>th</sup> grades at PÑ* (2)</li> <li>- 2017 Learnings from implementing interdisciplinary project-based learning in 7<sup>th</sup>-9<sup>th</sup> grades at PÑ* (3)</li> <li>- The principal's presentations on the new 7<sup>th</sup>-9<sup>th</sup> grade model between 2016-2018 (3)</li> <li>- 2017 Learnings from implementing the new model for 10<sup>th</sup>-12<sup>th</sup> grades at LC* (3)</li> </ul>	Administrators (7) Teachers (10)	<p>Teachers (3)</p> <p>Students (2):</p> <ul style="list-style-type: none"> <li>- 10<sup>th</sup> grade students PÑ*</li> <li>- 11<sup>th</sup> grade students LC*</li> </ul>
			<p>Distinctive course offerings and/or school instances (14):</p> <ul style="list-style-type: none"> <li>- 7<sup>th</sup> grade interdisciplinary project-based learning LC*</li> <li>- 7<sup>th</sup> grade interdisciplinary project-based learning PÑ* (2)</li> <li>- 8<sup>th</sup> grade interdisciplinary project-based learning LC* (2)</li> <li>- 9<sup>th</sup> grade interdisciplinary project-based learning LC*</li> <li>- 9<sup>th</sup> grade interdisciplinary project-based learning PÑ* (2)</li> <li>- 9<sup>th</sup> grade course on comparative religions PÑ*</li> <li>- 10<sup>th</sup> grade minor in visual arts LC*</li> <li>- 11<sup>th</sup> grade course on global perspectives</li> <li>- 11<sup>th</sup> grade <i>curso</i> counseling (2)</li> <li>- 12<sup>th</sup> grade IB course on theory of knowledge</li> </ul> <p>Instances of curriculum construction (3):</p> <ul style="list-style-type: none"> <li>- Academic and research teams joint meeting</li> <li>- Monday meeting of all 7<sup>th</sup>-9<sup>th</sup> grade <i>profesores jefe</i> with the 7<sup>th</sup>-12<sup>th</sup> grade head LC*</li> <li>- Wednesday meeting of all 7<sup>th</sup>-9<sup>th</sup> grade teachers working on interdisciplinary project-based learning at LC*</li> </ul> <p>Description of the physical spaces (2)</p> <ul style="list-style-type: none"> <li>- LC campus*</li> <li>- PÑ campus*</li> </ul>

(\*) LC refers to the Las Condes campus; PÑ refers to the Peñalolén campus.

School	Data source			
	Documents	Semi-structured interviews		Observations
		Individual	Group	
2. <i>San Nicolás</i>	<p><b>General documents (10):</b></p> <ul style="list-style-type: none"> <li>- 2015-2018 PEI</li> <li>- 2017 School improvement plan (2)</li> <li>- 2018 Citizenship formation plan</li> <li>- 2018 Discipline code</li> <li>- 2018 Promotional video</li> <li>- Summary of the school guidelines for assessment</li> <li>- Rubric for attitudes assessment</li> <li>- Aerial map of the whole school</li> <li>- Detailed map of the central building</li> </ul> <p><b>Programs &amp; plans (21):</b></p> <ul style="list-style-type: none"> <li>- 2010 9<sup>th</sup>-10<sup>th</sup> grade school own study plan</li> <li>- 2011 11<sup>th</sup>-12<sup>th</sup> grade school own technical-vocational tracks study plan</li> <li>- 2012 11<sup>th</sup>-12<sup>th</sup> grade school own college-bound tracks study plan</li> <li>- 2016 11<sup>th</sup>-12<sup>th</sup> grade school own technical-vocational tracks study plan</li> <li>- 2017 7<sup>th</sup>-8<sup>th</sup> grade school own study plan</li> <li>- 2017 9<sup>th</sup>-10<sup>th</sup> grade school own study plan</li> <li>- 9<sup>th</sup>-10<sup>th</sup> grade civic education, chemistry &amp; the environment, and sexuality &amp; affectivity school own study programs (6)</li> <li>- 2017 Vocational counseling program for 10<sup>th</sup> grade</li> <li>- 2018 Counseling programs for all grades (5)</li> <li>- 2018 Discipline plan</li> <li>- List and goals of the extracurriculars (2)</li> </ul> <p><b>Curriculum projects (7):</b></p> <ul style="list-style-type: none"> <li>- 2015 Learning by levels project</li> <li>- 2015 Mathematics &amp; physics interdisciplinary project</li> <li>- 2017 English interdisciplinary projects</li> <li>- 2017 “Choose track before 11<sup>th</sup> grade” project</li> <li>- 2017 Student letter to the principal on the school’s whole-curriculum</li> <li>- 2018 “Choose track before 11<sup>th</sup> grade” project</li> <li>- 2018 “Comprehensive-revision of the school’s study plans” project</li> </ul>	<p>Administrators (5) Teachers (6)</p>	<p>Administrators (1) Teachers (6) Students (3):</p> <ul style="list-style-type: none"> <li>- 12<sup>th</sup> grade college-bound students</li> <li>- 12<sup>th</sup> grade students in the technical-vocational tracks</li> <li>- 11<sup>th</sup> grade students working on the whole-curriculum reshaping project</li> </ul>	<p>Distinctive course offerings and/or school instances (11):</p> <ul style="list-style-type: none"> <li>- Flexible grouping in mathematics (4)</li> <li>- 9<sup>th</sup> grade <i>curso</i> council (2)</li> <li>- 10<sup>th</sup> grade civic education</li> <li>- Orchestra extracurricular</li> <li>- Mid-morning and lunch breaks (2)</li> <li>- Presentation of the school to visitors from the government’s Quality Agency</li> </ul> <p>Instances of curriculum construction (3):</p> <ul style="list-style-type: none"> <li>- Wednesday teacher council</li> <li>- Meeting of the department of history and social sciences</li> <li>- Meeting of all <i>profesores jefe</i> with the principal</li> </ul> <p>Description of the physical spaces (1)</p>

School	Data source			
	Documents	Semi-structured interviews		Observations
		Individual	Group	
3. <i>Guacolda</i>	<p><b>General documents (18):</b></p> <ul style="list-style-type: none"> <li>- <i>Guacolda's</i> history and foundational principles</li> <li>- Catholic church teachings on interculturalism</li> <li>- 2003 Video on student experience at <i>Guacolda</i></li> <li>- 2004 Special singularity status decree</li> <li>- 2012-2015 PEI</li> <li>- 2013 Report on the sociolinguistic survey by the EIB</li> <li>- 2013 Power Point on the PEI by the <i>jefe de UTP</i></li> <li>- 2015-2018 PEI</li> <li>- 2016-2018 PEI</li> <li>- 2016 Power Point on the PEI by the <i>jefe de UTP</i></li> <li>- 2016 Citizenship formation plan</li> <li>- 2017 <i>Guacolda's</i> strategic goals</li> <li>- 2017 School improvement plan (2)</li> <li>- 2017 Promotional video</li> <li>- 2017 School guidelines for assessment design</li> <li>- Aerial map of the whole school</li> <li>- Detailed map of the central building</li> </ul> <p><b>Programs &amp; plans (21):</b></p> <ul style="list-style-type: none"> <li>- 2005 school own study plans</li> <li>- 2013 school own study plans</li> <li>- Communication skills to be developed in Spanish</li> <li>- 2016 Mapudungún school own study programs (4)</li> <li>- 9<sup>th</sup>-10<sup>th</sup> grade religious education school own study programs (2)</li> <li>- Generic technical-vocational skills to be developed in 11<sup>th</sup>-12<sup>th</sup> grades</li> <li>- 11<sup>th</sup>-12<sup>th</sup> grade school own study programs for diverse Mapuche culture-related courses within the four technical-vocational tracks (7)</li> <li>- Programs for the 9<sup>th</sup>, 10<sup>th</sup>, &amp; 12<sup>th</sup> grade day experiences in values education (3)</li> <li>- List of extracurriculars</li> </ul> <p><b>Curriculum projects (4):</b></p> <ul style="list-style-type: none"> <li>- 2000 Application to the <i>Monte grande</i></li> <li>- 2004 Final products with the <i>Monte grande</i></li> <li>- 2014 Teachers' dreams for <i>Guacolda</i></li> <li>- 2017-2018 Project for systematizing the intercultural and interreligious experience at <i>Guacolda</i></li> </ul>	Administrators (4) Teachers (7)	Teachers (1) Students (1): - 12 <sup>th</sup> grade students	<p>Distinctive course offerings and/or school instances (5):</p> <ul style="list-style-type: none"> <li>- 9<sup>th</sup> grade Mapudungún</li> <li>- 10<sup>th</sup> grade religious education</li> <li>- 11<sup>th</sup> grade Fusion cuisine</li> <li>- 11<sup>th</sup> grade Mapuche culture and society</li> <li>- Parent day</li> </ul> <p>Instances of curriculum construction (4):</p> <ul style="list-style-type: none"> <li>- Monday teacher council (3)</li> <li>- Symposium on Intercultural Education</li> </ul> <p>Description of the physical spaces (1)</p>



## Appendix F: General Interview Protocol

### A. Informed consent/assent

- Go over the consent/assent form(s) with the participant(s), summarizing the key points: voluntariness of participation, confidentiality, and withdrawal at any time for any reason.
- Signature of the form(s), and give him/her/them a copy to keep.

### B. Background

- When and how did you arrive to the school, and what has been your experience in it so far?
- What is your role/work today?

### C. The school's whole curriculum

(*For individual interviews*). As I hand him/her paper and pencil, I will give this instruction:

“Assuming the school’s whole curriculum as the *comprehensive framework of aims and contents for teaching and learning*, could you graph/draw how you see it at present? Think of (a) what the school aims at teaching; (b) what the school actually teaches today, formally or informally; and (b) how it all comes together. If your take is from a particular department or role, graph/draw from this angle. Don’t worry for the quality of the graph/drawing as I won’t use it in itself. It’s just to make you think about the school’s whole curriculum in a fresh way before we talk about it.”

I’ll give him/her 5 minutes for this work, and then come back to the interview:

- Could you walk me through the graph/drawing?
- Follow up questions trying to understand what it says about the school’s curriculum.

(*For focus groups*). I will hand out a copy of MINEDUC’s study plans (Table 1.1), and ask how are they embodied at the school (i.e., what is different, and why?), pushing for global thinking.

1. Beyond the graph/drawing (or study plans), what are the school’s central emphases?

(Discursive, disciplinary, experiential, etc.).

- a. And how are these central emphases embodied?
- b. Distinct experiences, events and/or milestones at the school?
- c. How are these emphases embodied in the school’s structures, practices, and routines?  
(The area or department organization, a regular school day/week, routines, etc.).

2. How about the school's areas or departments? What are the emphases at this level?
  - a. What are study plans, and what is done with the *class periods of free disposal*?
  - b. What are the distinct course/experiences offered?
3. How do you see the relationship between your area or department (or the school's various areas and departments) and the whole school?
  - a. How do you see areas fitting into the larger picture of the school's whole curriculum?
  - b. Are there concrete instances in which areas or departments relate to each other or come together (either at the student- or the teacher-level)? (E.g., spaces for collaboration.)
4. What do you think about the school's approach to the national cross-curricular goals?  
 [With their nine dimensions: (a) physical; (b) social-emotional; (c) cognitive-intellectual; (d) social-cultural and civic; (e) moral; (f) spiritual; (g) productivity and work; (h) personal life project; and (i) ICTs.]
  - a. Which three of the nine dimensions are the most addressed (and how)?
  - b. Which three of the nine dimensions are least addressed (and why)?
  - c. What roles do (a) art or music; (b) religious education; (c) physical education; (d) technology; (e) counseling; (f) *curso* council; (g) philosophy and psychology; and (h) electives play in fostering the cross-curricular goals? (i.e., the non-tested subjects.)
5. Do you see any silences in or around the school curriculum? (I.e., not addressed issues.)
  - a. What are these silences?
  - b. Why do you think that these issues are not included or addressed?
6. What would you say is the school's *hidden curriculum*? (I.e., the unwritten, unofficial, and often unintended lessons, values, and perspectives that students learn at the school.)
  - a. What are concrete manifestations of this hidden curriculum?
7. How do you see the relationship of the school's curriculum with larger social-cultural, scientific or epistemological trends or requirements beyond the school?
  - a. With the Ministry of Education's requirements?
  - b. With general ideas about what is a *good education* in people's minds?
  - c. With general ideas about what is *valuable knowledge*?
  - d. With people's values, identities, and/or expectations and dreams for the future?
8. When you add it all up, what do you think students take from –or learn at– the school?
  - a. What's the story they learn about what it means to be *educated*, or *successful*?

9. Do you see any tensions or debates around the school's curriculum (overt or hidden)?
  - a. Where do you see these tensions, and how do they manifest themselves?
  - b. Where, and how are all these things we've talked about processed? Are there concrete instances for dealing with them, or is it all informal? Do you think the school has a *culture of curriculum construction*? If so, what concrete structures, practices and routines are a part of this culture?

#### **D. The process of curriculum reshaping**

Let's now think from a historical perspective. Think about the last decade/years...

- What have been the high school's most significant changes (in general)? Think of 2-3.
  - What have been the consequences of these changes for teaching and learning? (Or what has been the relationship between these changes, and teaching and learning?)
  - When would you say that the school began to innovate?
10. How would you describe the curriculum's evolution since the school began to innovate?
    - a. What has stayed the same?
    - b. What is gone (or has lost relevance)?
    - c. What is new (or has gained new relevance)?
    - d. How do these curriculum changes relate to non-curricular changes? (E.g., pedagogy.)
  11. What have been the main drivers of the changes in the school's curriculum, and what has been the narrative/vision associated with the changes?
    - a. Where do these drivers come from? Have they been external or internal to the school?
    - b. What discourses have fed the change? (E.g., about youth, or about the future.)
    - c. How has this related to a change in the idea of what it means to be *educated or successful*?
  12. How have the changes related to existing structures or guidelines?
    - a. In the school (e.g., departments, routines, teachers' professional identities.)
    - b. In the school system (e.g., the national curriculum guidelines, standardized achievement tests, other policies and/or regulations.)
    - c. Beyond the school system, at the societal level (e.g., knowledge structures, structures of identity or status production, broad social-cultural trends, market forces.)

- d. How do the latter societal structures and guidelines manifest? (E.g., parent pressure? Social-media?)
13. What tensions have the changes created (overt or hidden)?
- a. Where have you seen these tensions? How do they manifest themselves?
  - b. How have these tensions been addressed or processed?
  - c. What have been the formal or informal negotiations on this matter?
14. What have been the school's processes of curriculum deliberation of the changes?
- a. Who have participated, why, and how?
  - b. What have been the *technical* and the *moral-political aspects* of the changes?
    - i. What have been the theories or techniques behind the changes?
    - ii. What have been the values (or ideas of *what is good*) guiding the changes?
  - c. What have been the results of these processes?

#### **E. Conclusion**

- Any final thoughts? Anything else that has come to your mind during the interview that you would like to share?

Thank you very much for your time and for sharing your ideas and thoughts.

## **Appendix G: Observation Protocols**

### **A. For distinctive course offerings and/or school instances**

Dimensions to observe: (2) area/department course offerings and emphases; and (8) the underlying idea of educated (and/or successful person).

1. What does the course/instance consist of? Describe its goals as best as possible, and what happens during the instance.
2. Where and when does this class/instance occur?
3. Who are the participants, in what roles, and what do they do during the class/instance?
4. What general emphases of the area/department (or the school) does this class/instance embody? How?
5. What idea of educated (and/or successful) person is conveyed through the class/instance?
6. What does this class/instance represent within the school's whole curriculum?

### **B. For instances of curriculum construction**

Dimensions to observe: (3) the relationship of areas/departments with the whole school; (7) the relationship of the school curriculum with non-written structures of knowledge, identity and status production (e.g., the growing culture of cognition); and (9) tensions around the curriculum (overt or hidden), and concrete instances of school-based curriculum deliberation for processing them.

1. What does the instance consist of? Describe its goals as best as possible, and what happens during the instance.
2. Where and when does this instance occur?
3. Who are the participants, in what roles, and what do they do during the instance?
4. What is the relationship between the areas/departments observed during the instance?
5. What tensions around the curriculum and/or curriculum deliberations are observed in the instance? How do these things manifest/occur?
6. What does this instance represent within the school's present whole curriculum?

## Appendix H: Codebook for Data Analysis

		Code	Tag	Sub-codes	Definition
The whole curriculum of the school at present	1	General emphases	GEN.EMPH		References to the school's general/overarching goals, values, vision/mission, and/or emphases. Also, to the school philosophy, the theoretical underpinnings of the school project, etc.
	2	General practices	GEN.PRACT		References to the experiences, events, milestones, practices, and/or routines that embody the school's general/overarching goals, values, vision/mission, emphases, and/or philosophy. Concrete instances, practices.
	3	Academic emphases and practices	ACAD	Mathematics; Language (Spanish); Natural sciences; History and social sciences; Other languages; Arts; Religious education; Physical education and sports; Technology; Philosophy; Technical-vocational education	References to specifically academic (or technical-vocational) goals, values, vision, and/or emphases, and to the experiences, events, milestones, practices, and/or routines that embody these goals, values, vision, and/or emphases; be them department-specific or general.
	4	Extracurriculars	EXTRA		References to afterschool programs, clubs, activities, or instances that 'expand schooling.'
	5	Cross-department work	CROSS.DEPT		General references to work across departments: collaborations, meetings do devise things together, issues around interdisciplinary work, interdisciplinary projects, etc.
	6	Pedagogical issues	PEDAG		References to pedagogical issues that, although go beyond the curriculum, have been raised as necessary by curriculum changes.
	7	Student affairs	STUD.AFF	Counseling; Support for well-being; Discipline; <i>Curso</i> -level issues	References to non-academic, social or personal goals and emphases, and to the concrete regular instances, and practices that embody these goals and emphases (e.g., counseling, the work of <i>profesores jefe</i> , the discipline, etc.). All what happens 'in-between' the disciplines.
	8	Cross-curricular goals	CROSS.CURR	Physical; Social-emotional; Cognitive-intellectual; Social-cultural; Moral; Spiritual; Productivity and work; Life project; Use of ICTs	References to the national cross-curricular goals, and how the school addresses them (or not).

	9	Hidden curriculum	HIDDEN		The unwritten, unofficial, and often unintended lessons, values, and perspectives taught and/or learned at the school.
	10	Whole experience	WHOLE		Students' learning when their school experience is considered comprehensively, as a whole. Also, their personal syntheses of what they are offered (as a whole); their takes of it.
	11	Present deliberations	PRES.DELIB		Present deliberations about the curriculum, and/or curriculum issues that are demanding for –or have become a matter of– formal or informal deliberation.
	12	Structures for school-based curriculum deliberation	STRUC.DELIB	Teacher participation; Student voice	References to the school structure for making decisions about the curriculum, the deliberation structure. I.e., who makes what decisions, who is empowered on which topics, etc. This includes the spaces for teacher participation (and teacher's role in the school design), and the spaces for student voice.
The process of curriculum change	13	Historical context	HIST.CONT		References to the history/context of the school (or the city or the country) in which the curriculum changes have happened. This includes key historical milestones that are not exactly curricular.
	14	Curriculum changes	CURR.CH		Concrete curriculum changes/innovations/reshaping that have/has occurred (aside from other school changes that are not curricular). Mostly descriptions of the <i>what</i> , <i>when</i> , <i>where</i> , <i>how</i> and <i>who</i> .
	15	Narrative	NARR	Personal experiences	The drivers and/or narrative underlying the changes/innovations/reshaping, and their relationship with an <i>idea of educated person</i> . This also relates to students' or educators' concrete experiences underlying the narrative.
	16	External supports	EXT.SUPP		References to diverse external aids that the school has had in its change process: professionals, universities, other experiences that have been a model, etc. Also references to a lack of these supports.
	17	Relationship with structures	STRUCT		Relationship of the changes/innovations/reshaping with existing structures within the school (organizational structure, contracts, etc.), within the school-system, or at the societal-level (i.e., beyond schooling).
	18	Historical deliberations	HIST.DELIB		Historical deliberations about the changes/innovations/reshaping, including the tensions (in the school community) that existed, and other aspects of (or issues involved in) these deliberations.
	19	Syntheses and future projections	SYN.PROJ		References what has been learned from the school's trajectory so far, and to the future (or the future issues/challenges) that this trajectory puts forth. This includes ideas of deliberations that will be important in the future.