Towards a Relational Conceptualisation of Teacher Autonomy

Narrative Research on the Autonomy Perceptions of Upper-Secondary School Teachers in Different Contexts

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TOWARDS A RELATIONAL CONCEPTUALISATION OF TEACHER AUTONOMY
Narrative research on the autonomy perceptions of upper-secondary school teachers in different contexts

Academic dissertation to be presented with the assent of the Doctoral Training Committee of Human Sciences of the University of Oulu for public defence in the OP auditorium (L10), Linnanmaa, on 11 October 2019, at 12 noon

UNIVERSITY OF OULU, OULU 2019
Paradis, Audrey, Towards a relational conceptualisation of teacher autonomy—Narrative research on the autonomy perceptions of upper-secondary school teachers in different contexts
University of Oulu Graduate School; University of Oulu, Faculty of Education
Acta Univ. Oul. E 185, 2019
University of Oulu, P.O. Box 8000, FI-90014 University of Oulu, Finland

Abstract
This narrative research focuses on teachers’ perceptions of autonomy because of its importance to job commitment, efficiency, satisfaction, and motivation. A positive perception of autonomy relates to teachers’ feelings of competency, empowerment and professionalism. The overall importance of and desire for autonomy may be symptomatic of teachers’ reactions to obtain more, or to keep the autonomy they have. Previous studies have often depicted teacher autonomy as individualistic, comprising freedom from control. However, this research challenges the appropriateness of this conceptualisation of teacher autonomy by asking how upper-secondary school mathematics teachers perceive their autonomy in different contexts. To display contextual variations, the interviews with 15 upper-secondary school mathematics teachers from Canada and 12 from Finland were based mainly on open-ended questions. The contents of the teachers’ narratives were analysed in their whole and by comparing categories of narratives from one context to another.

The findings suggest that context influences how teachers perceive their autonomy. They also reveal that trust plays a decisive role in whether teachers feel autonomous or not, that trust plays a central to the relationships teachers have at work, and that autonomy inextricably exists in relations. Consequently, this research claims that the spectrum of autonomy for teachers should be expanded beyond its current individuality, to include a broader, more relational understanding of autonomy. A core argument of this research is therefore that teacher autonomy needs to be reconceptualised as relying on contextual sensitivities and relationships. By providing a more comprehensive conceptualisation of teacher autonomy—i.e., one which is more context-sensitive and which focuses on teachers’ concerns—the findings of this research supports more empowering ways for teachers to exert a proactive influence on their own autonomy.

Teachers’ perception of their autonomy is of practical and academic importance. Teachers who feel satisfied, supported, empowered and autonomous are more committed and motivated, which in turn advances better, more adaptive, and more adequate teacher education.

Keywords: autonomy, Canada, cultural context, Finland, mathematics, narrative, perceptions, relational autonomy, relationship, self-confidence, teacher, trust
Paradis, Audrey, Kohti opettajan autonomian relationaalista määrittelyä – Narratiivinen tutkimus eri konteksteista tulevien lukion opettajien autonomiaa koskevista käsityksistä
Oulun yliopiston tutkijakoulu; Oulun yliopisto, Kasvatustieteiden tiedekunta
Acta Univ. Oul. E 185, 2019
Oulun yliopisto, PL 8000, 90014 Oulun yliopisto

Tiivistelmä
Tuloksista voidaan päätellä, että konteksti vaikuttaa merkittävästi siihen, miten opettajat kokevat autonomian. Luottamuksesta on keskeinen merkitys sille, tuntevatko opettajat itsensä autonomisiksi toimijoiksi vai eivät. Lisäksi havaittiin, että luottamuksestaan on suuri merkitys työympäristön ihmissuhteissa, ja että autonomia on erottamaa osa näitä suhteita. Näin ollen tutkimusta yhteenotoksissa esitetään, että autonomian käsittelyn kirjoa tulisi laajentaa kyseisestä yksilökeskeisestä painotuksesta laveampaan määrittelyyn. Tämän tutkimuksen keskeinen väite on, että opettajan autonomiaa käsitetään tulisi tarkastella uudelleen huomioimalla erilaiset kontekstit ja ihmissuhteet. Painottamalla kokonaisvaltaisempaa näkemystä opettajien autonomiaan, toisin sanoen huomioon ottamalla kontekstin ja opettajien omat elämänävät, tämän tutkimuksen tulokset viittaavat tarpeeseen opettajien voimaanmuuttamisesta, jotta he voivat proaktiivisesti vaikuttaa omaan autonomiaansa

Opettajien käsityksillä autonomiasta on merkitystä sekä käytännön että teorian kehittämisen näkökulmista. Työssään tyytyväinen, tuettu, voimaantunut ja itsenäinen opettaja on sitoutunut ja motivoinut. Opettajien autonomiaan liittyvien käsitysten parempi ymmärtäminen edesauttaa opettajankoulutuksen kehittämistä.

Asiasanat: autonomia, itseluottamus, Kanada, kulttuurikonteksti, käsitykset, luottamus, matematiikka, narratiivi, opettaja, suhteellinen autonomia, Suomi, vuorovaikutussuhde
To all dedicated and indefatigable educators—

to teachers
Acknowledgements

As this work is based on the narratives of teachers, I thought it would be fitting here to interview myself in a way similar to the style I used with the participants in this research.

First question: Now that you have reached the end of your PhD journey and are looking back upon it, please tell about your experience and who you recognise as having been inspiring and supportive along the way.

I want to say that this work is a labour of love for teachers who are too often undervalued, underpaid and overworked, teachers who chose a career in which they work relentlessly to make the world a better place, despite their work situations. This is why I want to start by thanking all the excellent teachers who inspired me growing up, the passionate ones with whom I studied to become a mathematics teacher, the hardworking ones who were and are my colleagues but also my friends and family while teaching in Yellowknife, the inspiring ones in Oulu who encouraged me to become a researcher, and the generous and selfless ones who gave up their time to be interviewed for this research. All of these teachers and their work make me proud to associate with them and to call myself a high-school teacher and a teacher educator.

At this point in my academic journey, I want to express my gratitude to all the people who have helped me, and without whom I could not have accomplished this work. As I consider all support equally important, whether it is academic, financial, social, inspirational or emotional, I want to express how all that support has played an invaluable role in my research narrative and, to various extents, have taught me as well.

First of all, I wish to express my sincere gratitude to my three supervisors, especially to Prof. Raimo Kaasila for taking me as a doctoral student and committing to advise me in my work for the last six years. Thank you for your dedication and unwavering assistance, for your assiduous organisation and reliability, and for your ability to always keep the big picture in mind. Thank you, Dr. Katri Jokikokko, for your encouragement and all your sage advice, not only about masters and PhD research but about university teaching work. Thank you, Dr. Sonja Lutovac, for your dedicated, efficient, insightful, constructive and inspirational work and support. You have all helped me tremendously in becoming a better writer and a researcher.
I want to acknowledge all the others who have also provided me with academic support, including the anonymous reviewers who provided so much valuable insight about the three articles of this dissertation. Thanks to the members of my follow-up group, Prof. Kirsi Pyhältö and Prof. Anna-Maija Puroila, for your support and suggestions regarding my work since I began it. Thank you to members of the Living Relations community for their comments on my work and their uplifting research discussion. Thank you to Dr. Jaana Juutinen and Dr. Minna Uitto for generously accepting to serve as pre-defence opponents for my thesis and for offering much valuable and perceptive feedback. Thank you to Prof. Maija Salokangas and Prof. Peter Liljedahl for pre-examining my doctoral thesis and offering astute and well-informed reviews and suggestions. I am grateful to Veli-Matti Ulvinen for rigorous, clear and generous suggestions in formatting my dissertation in its last stages. Thank you to Prof. Auli Toom for kindly agreeing to review my research as an opponent and offering discussion to push my reflections further.

I am greatly obliged for all the financial support I have received in the last years, including grants from the Education Ministry of Quebec and of the Northwest Territories in Canada, Finnish Centre for International Mobility (CIMO), the Oulu University Scholarship Foundation, the FinEd network, UniOGS travel grant funds, the Finnish Cultural Foundation and last but certainly not least, the Faculty of Education of the University of Oulu, who also provided a home for me to produce my academic work.

I want to show my appreciation to the current and past members of the EDGE (Education, Diversity, Globalisation and Ethics) group of the Faculty of Education. Thank you to Gordon, Maria and Rauni for your profound care, your encouragement and dedication, your culture and wit. Thank you, Elina and EdGlo (Master's Degree Programme in Education and Globalisation) students of present and past. With all of you, I have learned to expand my research horizons, my thinking and myself beyond what I could ever have imagined. Thank you and for inspiring me to be a better teacher and researcher—and a better human.

Thanks to all those inspiring Education and Humanist friends and colleagues from VISE to TTEC, from Cultural Anthropology to Philosophy, especially Anu, Elise, Georg, Jaana, Johanna, Jouni-Matti, Magda, Mathilde, Michelle, Pauliina, Pete Cooke, Roger, Sebastiao and Tiia. Being and conversing repeatedly with such brilliant and engaging people from a variety of disciplines and backgrounds has made my thinking richer and my research more multifaceted. Some of you also contributed significantly to my social life! For similar reasons, many thanks to
inspiring friends and colleagues from the Rural Health School of La Trobe University in Bendigo, Australia, especially Elena, Hannah and Mandy.

Without a doubt, my PhD experience was the most trying and humbling endeavour I have undertaken. Despite all of the trials and tribulations I have encountered, I am very grateful for everything I learned along the way. On the rollercoaster of emotions I have experienced on this PhD train, the emotional support and uplifting distractions I have received during these strenuous years are inestimable. Living, studying, teaching and researching in Oulu has been made wonderful by so many people. For that, I want to say thank you to my Finnish extended family, for their always loving, cheerful and welcoming attitude and for making me feel like I belong right here. Thanks to Erik, Helena and Pirkko, to Jukka and Tytti-Maria, and especially Maria—you are so important to me. Thank you also to the Jälkänen and especially my dear and oldest Oulu friend, Julia, without whom my Finnish family would not be.

Friends are essential in my life, especially after living thousands of kilometres away from my family for the last 15 years. Therefore, I want to express my gratitude to my chosen family away from family, to my very dear and precious friends of past and present vicinity. To my math teacher friends of Montreal, to my VBs, my bands and all my darlings of Yellowknife, to my Oulu friends and masters friends, especially to Haerin, Marita and Sanna, and to Emma, thank you for being there for the fun times but also for the tough times. Thank you for the music and travels, and for being so much fun, real and raw and for allowing me to be the same. Thank you for your roles in my life and my place in your hearts—I am so very grateful that I have met all of you and that you have shared so many fundamental parts of my life.

To my Toivoniemi crew, thank you for your unfailing support, your kind ears, your welcoming hearts, your intelligence and just for being marvellously joyful and colourful friends. I feel lucky that we could share our PhD years together, and that we bonded on a profound level over our similar accomplishments and hardships. À mon ami Romain, a mis amigos Nicolas y Pablo ja ystävälleni Tainalle, thank you for the interdisciplinarity of our discussions, for your open minds, for the lightness and depth of our conversations even over cafeteria lunches; for the crafts, horror movies, singing, costumes and laughter; for the multiple nights and weekends out, for the trips and brunches—thank you for sharing all of this with me and for the academic awesomeness.

Thank you to my Paradis and Roberge family. Merci à toute ma famille pour votre amour et support. Un merci tout spécial à Julie et Maxime pour notre
complicité et humour partagé, pour toute notre vie côte à côte malgré la distance. Je ne pourrais pas imaginer ma vie sans vous. À mes parents, pour votre amour sans borné, pour votre support inconditionnel, pour tout ce que vous m’avez appris et tout ce que vous m’avez donné, un merci ne suffira jamais. Je ne serais certainement pas la femme que je suis aujourd’hui, ou n’aurais pas pu m’accomplir autant sans votre essentielle présence et confiance durant toutes les étapes de ma vie. J’espère que vous savez à quel point je suis reconnaissante pour tout ce que vous avez fait pour moi.

Finally, thank you to Jaakko my partner, my friend, my confidante, my travel buddy, my supporter-in-chief. You have been an integral part of this whole journey, and of every detail of it, for better or for worse—from my feeling accomplished, elated and intelligent, to ignorant, alone and infantilised, from feeling proud to have been published to feeling like I will never be able to complete this project. Thank you for all the laughter and joy, and for the serenity you bring to my life. Thank you for always cheering me on, especially in the most trying and penniless times. Your love and support have been fundamental during this journey and I wan …

OK (interrupting), thank you for your answering this first question, this is all the time we have for this interview!

In all seriousness, this first interview answer is representative of how teachers usually give narrative interviews—answering questions in great detail, with candour and wrapped in emotions. Let this be a glimpse into the teachers’ interviews of this research as well as a preface to this dissertation.

24th June, 2019

Audrey Paradis
List of original publications

This dissertation is based on the following original publications, which are referred to throughout the text by their Roman numerals:


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1 Teacher autonomy: An introduction

This chapter will introduce when and why this research was conceived, and why the topic of teacher autonomy is important. This will lead to the research question underpinning this research. I will then proceed to explain my positionality and role as a researcher. This introductory chapter will end with a brief overview of the three articles included in this dissertation.

1.1 The rationale and significance of this research

This research work really started when I left my permanent job as an upper-secondary school mathematics teacher in Canada. Feeling increasingly frustrated and disillusioned by my work, I felt compelled to problematise and analyse those feelings, and undertook graduate studies in an effort to do so. As I learned more about the concept of teacher autonomy, I realised that this concept is broad and is used in philosophical, political, cultural and ideological discussions. I also discovered that it is a coveted aspect of the teacher profession, especially in Western contexts, and that teachers generally feel entitled to autonomy (Berka, 2000; Dworkin, 1988; Shaw, 2008; Smith & Ushioda, 2008; Strong & Yoshida, 2014). I then realised that more academic attention should be given to teacher autonomy, especially to the ways in which teachers perceive their autonomy. The study of teachers’ perceptions allows researchers to better understand how teachers apprehend and interpret their experiences and reality (Munhall, 2008). As such, the study of teachers’ perceptions is also the study of their perspectives informed by their senses, beliefs, history, culture and other subjectivities, and perceptions are often conveyed in research through narratives (Munhall, 2008). My research therefore focuses on the perceptions of autonomy that upper-secondary school mathematics teachers have, in different contexts and relations.

Autonomy in teachers’ work is important for several reasons. Previous research (Deci & Ryan, 1985; Ryan & Deci, 2000) stipulates that autonomy is a basic psychological need for all individuals, regardless of their culture or gender. Autonomy is identified as a basic human concern and is at the origin of teachers’ feelings of professionalism and competency (Chirkov, Ryan, Kim & Kaplan, 2003). Previous research has consistently underlined the importance of autonomy for teachers (Day, 2002; Strong & Yoshida, 2014) and asserted that it is one of the most desired provisions in the professional educational sphere (Deci & Ryan, 1985; Hargreaves, 1993; Smith & Ushioda, 2008). Considering its coveted attribute,
teacher autonomy is a site of negotiation (Smith, 2003) and political struggle (Wilches, 2009). In an era where global policy borrowing, accountability and high-stakes examinations are commonplace, the autonomy of teachers is being gradually eroded (Benson, 2010; Erss, Kalmus & Autio, 2016; Perryman, Ball, Maguire & Braun, 2011). In this context, it is crucial to examine how teachers perceive their autonomy.

Researching perceptions of autonomy is a significant means of preventing detrimental situations for teachers which could undermine their sense of professionalism. For instance, fluctuations in the perception of autonomy for teachers, which is often at stake in the micro-politics of schools, have more ramifications and consequences than are usually assumed (Day, 2002; Kelchtermans, 1996; Sachs, 2001). Furthermore, when teachers are expected to mechanically teach to meet pre-determined outcomes and are treated like technicians instead of professionals with expertise, their perceptions of their autonomy can be threatened (Robertson & Jones, 2013; Shaw, 2008). It is thereby important to foster a positive sense of autonomy, as it is essential for teachers’ development and wellbeing (Chirkov et al., 2003). Teachers with positive perceptions of autonomy are more likely to be satisfied, empowered, efficient and committed to their work, and are more likely to stay in the profession (Day & Kington, 2008; Ingersoll, 2001; Parker 2015; Pearson & Hall, 1993; Skaalvik & Skaalvik, 2009; Yu-hong & Ting, 2012; Zembylas & Papanastasiou, 2005). Finally, efforts to make teachers feel satisfied, supported and autonomous could also be considered efforts towards giving teachers more space to adapt and differentiate education for increasingly diverse classrooms (Hyslop-Margison & Sears, 2010; Prichard & Moore, 2016; Skaalvik & Skaalvik, 2009).

Perceptions are at the basis of this research, but the terms understanding and conceptualisation are also used. It is therefore important at this stage to distinguish the meaning of those three terms in this research. Inspired by the revised Bloom taxonomy (Dettmer, 2005), perceptions seem to be located in the lowest tier of the taxonomy, being related to actions such as identifying, recognising, matching and relating, all of which pertain to individuals’ experiences. Perceptions of autonomy in this research are analogous to “senses” or “feelings” of autonomy. Understanding is close in meaning to perception but is located in a higher tier of the taxonomy, pertaining more to actions such as categorising, exemplifying, contrasting, discussing and translating. Understanding is thus less individual or related to experiences of one’s senses and has a degree of abstraction. Conceptualisation is in the higher tier of the taxonomy and is at the abstract level,
pertaining to actions such as designing, constructing, formulating and defending, which are cognitive activities at the creative or theorising level. In this teacher autonomy research, the idea of conceptualisation is based on understanding, which is based on perception.

The literature about teacher autonomy has a long history, and teacher autonomy has been depicted and considered in rather narrow scopes, focusing almost exclusively on the individual nature of teacher autonomy. Research focusing on teachers’ perceptions of autonomy, on the other hand, has a shorter history (Strong & Yoshida, 2014), but it still rests on individualistic assumptions. This may be due to the most basic definition of autonomy, which states that it is “the capacity for self-governance” (MacDonald 2002a, p. 194), leading in itself to the idea of an autonomous individual making decisions in independent and uncoerced ways. As a result, this individualism is reflected in the ways teachers perceive their autonomy, reflecting the common traditional and individualistic understanding of autonomous teachers being isolated from relationships (Nelsen, 2010) and free from control (Cakir & Balcikanli, 2012; Shaw, 2008). Non-individualistic or empowering conceptualisations of teacher autonomy are seldom present in previous research, which is consequential. When teachers holding an individualistic understanding of autonomy feel deprived of autonomy or powerless as it is eroded, teachers may react by isolating themselves in an effort to feel that they have more control or autonomy, despite knowing isolation may be harmful (Paradis, Lutovac & Kaasila, 2015).

The research at hand challenges the individual nature of the traditional conceptualisation of teacher autonomy. In doing so, it suggests replacing the current conceptualisation of teacher autonomy for a broader and more relational one, as relationships and manifestations of teacher autonomy are inevitably intertwined. This research presents a relational conceptualisation of autonomy and investigates teachers’ sense of autonomy through that lens, underlining the inextricable relational nature of autonomy wherein the social and institutional aspects are linked (MacDonald, 2002a, 2002b; Mackenzie & Stoljar, 2000). This conceptualisation contrasts with the individualistic one, in which individuals typically request solitude and freedom from control. While relational autonomy is not normally addressed in educational research (Nelsen, 2010), it is addressed in other fields such as bioethics, law, medicine, nursing and philosophy (Goering, 2009; MacDonald, 2002a, 2002b; Mackenzie & Stoljar, 2000; Twomey, 2015). Applications of relational autonomy from other fields are therefore utilised in this research to advance the understanding of teacher autonomy.
Perceptions of teacher autonomy are not only contingent on relationships, themselves pertaining to self-confidence (Govier, 1993) and trust (Bryk & Schneider, 2003), but also on the contexts within which teachers evolve (Munhall, 2008). However, previous research has tended to overlook cultural components which may impact teachers’ perceptions of autonomy (Wermke & Höstfält, 2014). The research at hand thus focuses heavily on a variety of contexts which indicate that situatedness is important (Hammersley, 2008). The word context is used in different ways in this research. At times, context can mean general location, environment or condition—for example, the context of mathematics teachers involving specific pressures, or the international education policy context. In this dissertation, context is often used when discussing different set of circumstances, at times characterising situations or entities (Dey, 2001). As such, the characterising or circumstances related to the structure and set of rules which regulate an organisation are referred to as the structural context, while the characterisation of or circumstances pertaining to how people interact together are referred to as the cultural context. Arguably, teacher autonomy is rooted in and better illustrated and understood within specific cultural contexts. This is why this research focused on the specific cultural contexts of Canada and Finland, and how the different sets of circumstances encompassing people’s interactions influence teachers’ perceptions of their autonomy.

There are obvious commonalities between these two northern countries with regards to education, which facilitated the choice to contrast Canadian and Finnish teachers’ perceptions of autonomy. For instance, both Canadian and Finnish societies have displayed a will to maintain public services and strong public education (Beese & Liang, 2010). Upper-secondary school mathematics teachers in both countries are required to obtain the equivalent of a masters degree (Beese & Liang, 2010). Canadian and Finnish education systems have performed well in the Programme for International Student Assessment (PISA), especially in mathematics, which is particularly relevant to this research because the participants are upper-secondary school mathematics teachers, who are especially susceptible to high-stakes assessments and the pressures related thereto. Although high-stakes assessments are of course important in most countries, the implications of those assessments for Canadian and Finnish teachers are particularly interesting to contrast. The responsibilities of teachers in these contexts are in line with professional form of teacher accountability rather than the market and community forms of teacher accountability which predominate in the United States and the United Kingdom (Williams & Engel, 2012). While Finnish teachers are often
depicted as being less monitored and more involved in designing curricula than their Canadian counterparts (Niemi, 2012; Williams & Engel, 2012), it is interesting to investigate the teachers’ perceptions of their autonomy in both contexts as they are faced with similar pressures stemming from the curriculum, and confronted with high-stakes examinations. As such, this research examines the perceptions of autonomy that upper-secondary school mathematics teachers have in specific contexts.

Previous educational research related to autonomy has often treated teachers’ autonomy as a secondary focus (Salokangas & Wermke, 2016), aiming to rapidly and efficiently fix related problems for the benefit of students. Acknowledging that there are no teachers without students, I made the conscious decision in this research to leave aside students’ perspectives and implications so that I could focus thoroughly on the teachers. Even though students are important actors in teachers’ work, other actors with authority on teachers will be considered here, contributing to the limited previous research related specifically to teachers’ implications, focus and benefits.

Teacher autonomy has often been studied in quantitative ways (Pearson & Hall, 1993; Pearson & Moomaw, 2005; Strong & Yoshida, 2014). Yet, the perceptions teachers have of their autonomy are more fluid and stretch beyond quantitative measurements. I therefore chose to utilise the personal narratives of teachers (Lieblich, Tuval-Mashiach & Zilber, 1998) for many reasons. Narrative research aims to highlight changing, personal, authentic, subjective and constructed knowledge rather than to generalise “objective” knowledge (Heikkinen, Huttunen, Syrjälä & Pesonen, 2012). I use narratives to access the subjective and relativist reality of the participants, particularly the way they impart meaning to their world (Bruner, 1986, 1987, 1991; Lieblich et al., 1998; Polkinghorne, 1995). Narrative research is increasingly used and appreciated in social science research (Bruner, 1987; Heikkinen et al., 2012; Riessman, 2008), especially in education and with teachers. This specific research methodology combines “the philosophical stance towards the nature of social reality and our relationship with it, and the mode in which it should be studied” (Spector-Mersel, 2010, p. 206). As such, narrative research allows for an examination of the relationships between one’s personal narrative and the social narrative in which they are embedded, a quality which is important in my examination of teachers from different cultures. I have used personal narratives because they are seen as tools to make sense of or to represent a reality, often established through social interactions, which is singular to that person (Heikkinen et al., 2012; Polkinghorne, 1995; Spector-Mersel, 2010; Swain,
Narratives encapsulate the coexistence and interdependence of the individual and his or her context in a specific location and time. This methodological choice was specifically made to place teachers’ voices at the forefront of this research, which is not the usual focus in previous research.

My research has a particular place in the field, as I focus on the teachers first, in an effort to deepen the understanding of teacher autonomy and to examine the ramifications which changes have for autonomy, for the teacher’s benefit. To fill the aforementioned gap, the research at hand offers a new approach and rich contextual elements. I investigate in depth the underlying factors which influence teachers’ perceptions and understanding of their autonomy, embedded in culture and in relations. In doing so, this research explores upper-secondary school mathematics teachers (those with students aged 14–18 years old) in different contexts. A total of 12 teachers from Finland and 15 teachers from Canada were interviewed. The content of their narrative interviews is analysed in their whole and by comparing certain categories of narratives from one context to another (Lieblich et al., 1998; Polkinghorne, 1995). The purpose of this was to reveal similarities and differences in how teachers perceive the interplay of trust, self-confidence and teaching context in terms of their autonomy.

1.2 The research question and aims of this research

While each of the three articles supporting this dissertation had specific research aims and research questions, they all focus upper-secondary school mathematics teachers’ perceptions of their autonomy, all under a narrative umbrella. The larger research question informing this research is:

How do upper-secondary school mathematics teachers in different contexts perceive their autonomy?

This research has theoretical and methodological aims. It aims to open theoretical discussions about how teacher autonomy can be supported in different contexts, establishing linkages between the cultures of Canada and Finland. This research also aims to deepen the understanding of what autonomy means for

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1 In this dissertation I refer to national contexts, even though the Finnish teachers interviewed came from different regions all over Finland and the Canadian teachers came from all over the province of Quebec. Because education is administered provincially in Canada, it made sense to focus on one specific province. Moreover, the province of Quebec is more comparable to Finland in terms of size, population and language singularities. Therefore, for consistency purposes and to keep comparisons on the same levels, I refer to both national contexts and to the Canadian context in this dissertation.
teachers and will propose ways to better sustain teacher autonomy. Hence, I aim to support teachers enacting changes with respect to their own autonomy, rather than simply reacting to controls on their autonomy, which is more likely for teachers who have a traditional understanding of autonomy (Vangrieken, Grosemans, Dochy & Kyndt, 2017). Furthermore, this research aims to contribute to the literature about teacher autonomy as part of an argument that we need to shift the understanding of teacher autonomy to a more contextually and socially bound direction. One more theoretical aim of this research is to expand the collection of teachers’ narratives, describing the different challenges experienced by teachers about perceived autonomy, caused by a lack of trust or low self-confidence. The methodological aims of this research are mainly related to its narrative nature. By examining teachers’ narratives about their autonomy, in open interviews, in different kinds of narrative research analysis, I aim to provide a deeper and broader picture of what autonomy means to teachers in different contexts, rather than simply accepting the definitions of autonomy currently prevalent in the literature.

This research also has practical aims for all school actors: A relational understanding of autonomy may help teachers, principals, board members and even students to gain a deeper understanding of the conflicts over autonomy and discover new ways towards solutions. Ultimately, this research aims to provide practical examples of teachers’ work, perception and experiences which other teachers can relate to. Furthermore, I aim to provide practical avenues for teachers to enhance their own autonomy. For instance, I argue that if teachers knew what constitutes autonomy, with directions from this research, they could tackle individual components of autonomy and make incremental changes to ultimately improve their autonomy. This research also aims to accompany teachers to become more self-confident and satisfied with their everyday work, to enhance and benefit from their relationships at work, to feel more efficient and productive, to feel more hopeful and impactful, and to acquire a will to remain and grow in the profession.

From the outset, one of the fundamental aims of my teacher autonomy research is to empower teachers (Lee & Nie, 2014; Zembylas & Papanastasiou, 2005). The importance of this is reflected in many of the previous aims. Teacher empowerment is significant as it can uplift teachers to combat what they see as dehumanizing trends in schools, and to be able to engage with students in ways teachers deem most meaningful (Lawson, 2004). Teachers can generally be empowered in terms of motivation and opportunities for decision-making, which involve a psychological dimension through intrinsic motivations (Thomas, 2017) as well as social structural dimensions (Lee & Nie, 2014). In my research, the latter dimension
is relational and can pertain to principals or other authorities who share decision-making opportunities with teachers (Erss, 2018; Lawson, 2004); such individuals promote empowerment when they “[demonstrate] trust in teachers, [develop] shared governance structures, [listen] to individual teacher’s input, [provide] individual teacher autonomy, [encourage] innovation, creativity and risk-taking, [give] rewards, [provide] support and [show] care for teachers” (Lee & Nie, 2014, p. 69). This social structural dimension contributes to teacher empowerment at both the classroom and organisational levels, when teachers have the opportunity to make critical decisions which directly influence their work, professional status, school life and professional development (Paulsen, Hjertø & Tihveräinen, 2016; Short, 1994; Zembylas & Papanastasiou, 2005). Empowered teachers become aware of their capacities to “identify problems, institute change efforts, and ultimately, to take responsibility for solving the problem. In other words, empowered teachers are more willing to take ownership of the problem and to find solutions than teachers omitted from involvement in decision making” (Short, 1994, p. 489). Enhancing the empowerment of teachers allows them to feel capable and motivated to effect changes which will benefit them and their practice. It can also entice teachers to be proactive in finding solutions to issues they see as being potentially problematic, instead of simply reacting to problems they face. Because teacher empowerment is important and beneficial, and because teacher autonomy is deemed a dimension of teacher empowerment (Klecker & Loadman, 1998; Lee & Nie, 2014; Paulsen et al., 2016; Short, 1994; Thomas, 2017; Zembylas & Papanastasiou, 2005), I argue that my work to enhance teachers’ autonomy can also contribute to their empowerment.

1.3 The positionality and role of the researcher

Because I have a strong personal kinship to teachers, having been a teacher myself, this research was conceived, designed and elaborated with teachers at its heart. My research has been motivated by a will to problematize the frustrations I felt as a teacher. During my seven years of teaching mathematics, mainly at a senior level, I felt increasingly pressured in my work and frustrated with the distrust between most school actors and the micro-politics involved in my school life. I remember vividly how this constant frustration translated into a feeling of powerlessness and a will to isolate myself in my classroom, becoming increasingly reactive over the years. While I loved my students and teaching, I grew bitter and tired, feeling that I had no “real” autonomy because I was controlled by an extensive curriculum and
administrators, as well as many colleagues and parents. In conversations with colleagues over the years, I realised they too struggled, feeling “pressured, overworked, abused, bullied, overwhelmed, frustrated, confused and exhausted” (Paradis, 2013, p. 1). This persistent sense of frustration led me to leave the profession, to reflect on my years as a teacher, and to move to Finland to pursue a masters degree in education. The frustrations felt by teachers were at the centre of my masters thesis, which discussed controls, pressures, social imaginaries and the independence teachers ultimately strive for. Then Katri, one of my masters thesis advisors, drew my attention to the autonomy which the teachers participating in my masters thesis seemed to be discussing. This idea became increasingly important to me and I grew more intrigued by teacher autonomy, especially when I spoke with teachers in Finland who seemed to have a completely different working experience than mine. Over time, reading about and reflecting on teacher autonomy in different contexts inspired me and became the focus of my doctoral dissertation, being of great significance to me personally and to my former colleagues as well as to a much wider audience.

My positionality as a researcher to conduct this research is optimal because of my profound involvement in two contexts. My entire background is in education, in both Canada and Finland. As I have been involved in both contexts for years as a professional educator, this allowed me to significantly engage in the field (Creswell & Miller, 2000), prior to the interviews with participants. Because of my significant engagement in these contexts, I occupy an ideal position to relate and understand the participants and to make most genuine sense of their narratives (Bruner, 1991; Spector-Mersel, 2010). It can be argued that such familiarity with the topic and context might veil the researcher’s judgement—for example, in leading the interviews in certain ways, or interpreting participants’ comments through the lens of the researcher’s own experiences (Berger, 2015). However, I argue that my acute awareness of those dangers allowed for a constant attitude of heightened caution during the course of this research. I can confidently claim that the advantages brought by my familiarity with the topic and contexts outweigh the drawbacks, that familiarity here is more profitable than the distance and “objectivity” entailed by the unfamiliarity of an outsider. This research profited from familiarity in many different ways which are explained in this research, including finding participants, relating to them on a personal level (thereby breaking down the researcher-participant hierarchy) and attracting more personal and detailed insights. Furthermore, even though it was easier for me to relate to the Canadian context (as I acquired the greater part of my experience there), I feel that my active and frequent
interactions with Finnish teachers and the Finnish education context placed me in an advantageous position to reflect upon and contrast the teacher situations in the two contexts.

1.4 Overview of the articles

This dissertation is based upon three academic articles published in international peer-reviewed journals. All three articles of this dissertation were co-authored with my supervisors.2

Article I: A Canadian teacher’s perceived autonomy and self-confidence in the midst of an educational reform

Article I focuses on Nora, a Canadian mathematics teacher employed in an upper-secondary school. In her interview, she narrates her teaching career and tell about her experience facing a major educational reform. The research questions guiding this article are: How does teacher’s perceived autonomy and self-confidence fluctuate in the midst of educational reform, and what are the possible ramifications of these fluctuations for a teacher? Nora’s narrative is emplotted, meaning that the content of her narrative is analysed by means of narrative analysis (Lieblich et al., 1998; Polkinghorne, 1995).

The findings reveal that Nora’s perception of autonomy and her self-confidence are entwined in a complex relationship, fluctuating together over the course of her career. The emplotment of Nora’s narrative indicates that the provincial reform of the 2000s had a significant impact on both her perception of autonomy and her self-confidence. Because of the intricate relationship between her perception of autonomy and self-confidence, Nora narrated that the implementation of the reform induced the erosion of both concepts and triggered a downward spiral for her. Challenged by her decreasing perceived autonomy, which impaired her self-confidence and vice-versa, Nora found comfort in isolation as she

2 My contribution to all three empirically based articles can be described as follows: I collected, transcribed, translated and analysed all the data. I drafted each section of each article. My supervisors helped me every step of the way, commenting on all sections, rewriting some parts, questioning my choices and pushing further the depth and the quality of each article. For the sake of clarity and because of my profound involvement in all parts of the research, I will write in the first person for the rest of this dissertation.
was also alienated by her colleagues. The findings revealed that this isolation was particularly significant for Nora’s self-confidence.

This article draws attention to the dangers of worsening perceptions of teacher autonomy, and the reactions teachers may have in facing this challenge. This article highlights how a single insightful narrative can give voice to suffering teachers caught in situations akin to Nora’s. It is therefore important to be attentive to teachers’ perceptions and reactions, to have a supportive climate in schools where colleagues and principals encourage positive perceptions of autonomy and self-confidence, and of evolving teaching practices. As this article reveals that reforms impact teachers’ perception of autonomy and self-confidence, closer attention should be given to those concepts when developing and implementing policies and reforms. If teachers were more supported and considered, their reactions to challenges may change, their desire to hide may recede and they may stop favouring isolation over other solutions. Supporting teachers in that way contributes to their wellbeing and may reduce teacher turnover. Supported, satisfied and confident teachers are better situated to provide the best teaching and learning to students.

**Article II: Canadian and Finnish upper-secondary school mathematics teachers’ perceptions of autonomy**

Article II investigates how upper-secondary school mathematics teachers in Canada and in Finland perceive their autonomy in relation to their cultural contexts. More specifically, it discusses how those teachers perceive autonomy overall, how stable it has been throughout their careers, and how satisfied they are with it. In both Canada and Finland, upper-secondary school mathematics teachers teach with a specific goal: to get their students to succeed towards the end of their studies in high-stakes external assessments which will influence whether students are accepted by universities. This article suggests that those teachers’ perception of autonomy could be undermined by the pressures caused by the high-stakes examinations.

For this article, 23 Canadian and Finnish upper-secondary school mathematics teachers were asked to tell narratives about their work, and this narrative data was analysed using a categorical-content approach. The findings of the analysis suggest that despite expressing similar concerns about autonomy, those Canadian and Finnish teachers perceive their autonomy at work in different ways, leading to different levels of satisfaction. The Finnish teachers interviewed for this research
reported feeling overall satisfied and strongly and consistently autonomous, despite the facts that they clearly identified having little school-wide autonomy and that they expressed concerns about areas of low autonomy. The Canadian teachers interviewed for this research also expressed concerns with their limited school-wide autonomy, and unsurprisingly felt dissatisfied, perceiving their autonomy as suffering, decreasing or low.

The results show that despite the high-stakes examinations directing the mathematics teaching and imposing similar pressures on teachers in both Canada and Finland, this does not automatically imply a diminished sense of autonomy. For the Finnish participants, autonomy seemed to be a default attribute of the teaching profession. According to them, as soon as one becomes a teacher in Finland, autonomy is obvious and permanent; it seems that merely nothing can undermine Finnish teachers’ sense of autonomy. Canadian teachers, on the other hand, operate among their own cultural stories of accountability and distrust, leading them to feel that they were being controlled and undermining their sense of autonomy. Those results suggest that despite the incentives or constraints affecting teachers’ work, the way teachers perceive their autonomy among their context is far more meaningful for their own individual sense of autonomy.

**Article III: Towards a relational understanding of teacher autonomy: The role of trust for Canadian and Finnish teachers**

The traditional understanding of an autonomous teacher relies on individualism, picturing an individual’s capacity to work as a classroom professional without undue interference from external parties. Article III argues, however, that the spectrum of teacher autonomy should be expanded to include also understandings which may not be confined to the individual, the limits of the classroom, or freedom from control. The research questions guiding this article are: What is the role of trust for upper-secondary school mathematics teachers’ perception of their autonomy and how is trust in teachers articulated in different teaching contexts, in this case by Canadian and Finnish teachers? This article investigates the role of trust, mainly the trust imparted to teachers, with regard to teachers’ perceptions of their own autonomy, embedded in differing contexts and in relations. To display contextual variations, a total of 23 Canadian and Finnish upper-secondary school mathematics teachers were interviewed about their perceptions of autonomy and the role of trust in those perceptions.
Stemming from a categorical-content analysis of the narrative data, the findings revealed that trust plays a central role in the relationships that teachers have at work, and is fundamental in assessing these relationships. The findings also revealed that trust is a determinant of autonomy for teachers. Furthermore, the findings indicate that the articulation of trust changes from one context to the other, due in part to the culture of the context. Canadian participants were more critical than their Finnish counterparts in articulating distrust in their work and its repercussions. Finnish participants described an all-encompassing trust at work, although they admitted that they did not know exactly why this is so and attributed it in part to their cultural story.

Because perceptions of teacher autonomy are strongly dependent on relationships, which are principally established upon trust, teacher autonomy is inherently relational. Therefore, the traditional individualistic conceptualisation of teacher autonomy, relying on freedom from control inside the classroom, is insufficient. The findings indicate that there is a need to reconceptualise teacher autonomy to include trust, inherent relationality and contextual sensitivity.
2 Teachers in Canada and Finland

As this research is rooted in contexts, the Canadian and the Finnish contexts will be detailed in this chapter. I will explain on what basis Canadian and Finnish teachers can be contrasted and will provide a cultural story for each of the teachers’ contexts, informing about the cultural contexts in which teachers interact with others. The structural context will then demonstrate how education and teacher education are structured in Canada and in Finland, informing how school systems are organised and providing details about their operation.

Before going further, it is important to recognise that there is a national curriculum and direction in the Finnish education system. In Canada, educational jurisdictions are allocated per province or territory, each of which is responsible for its own education system and the administration thereof (Davidson-Harden & Majhanovich, 2004; Ghosh, 2004). All the Canadian teachers interviewed for this research were educated and worked in the same province, Quebec. The specific provincial aspects of education will therefore pertain to the province of Quebec. Nevertheless, in order to facilitate the parallel between contexts, I will mainly refer to Quebecois teachers as Canadian teachers. As such, I will discuss Canadian teachers in two ways, referring at times to Canadian teachers in general, and other times, when needed, referring specifically to the Canadian teachers from the province of Quebec.

2.1 Why Canada and Finland

It is relevant to juxtapose the teaching context of Canadian and Finnish upper-secondary school mathematics teachers as they share many commonalities, allowing for fair comparisons, but differ in interesting ways which yielding new discussions. Teachers in both contexts have similar training and similar schooling (see Sub-chapter 2.3). There are no inspections of teachers or teaching in either of the contexts (Paulsrud & Wermke, 2019; Tardif & Borges, 2014). Teachers receive similar salaries, although Canadian teachers are paid slightly more in proportion to the gross domestic product (GDP) of the country (Organisation for Economic Co-operation and Development [OECD], 2012). As of 2008, Canada and Finland spent about the same percentage of their GDP on education (nearly 6 per cent) (Couture & Murgatroyd, 2012). Upper-secondary school mathematics teachers in both Canada and Finland have to prepare students to take an external high-stakes assessment towards the end of their upper-secondary studies (Couture &
Murgatroyd, 2012). Consequently, teachers in both countries perceive an increasing level of stress at work, which often prompts them to leave or to consider leaving the profession (Pelletier & Sharp, 2009; Pyhälä, Pietarinen & Salmela-Aro, 2011; Tardif, 2013).

Differences between the contexts are most apparent when assessing the student body. While most Canadian students attend public schools, there are private schools in all provinces. In Quebec specifically, a little more than 15 per cent of students were enrolled in private schools in 2008 (Lefebvre & Merrigan, 2009). On the other hand, fewer than 3 per cent of Finnish schools are private (Kosunen, 2014) and most Finnish students are enrolled in public schools, even though a growing percentage of parents and students are choosing specialised schools or programmes (Kosunen, 2014; Seppänen, 2003). While Finland has an increasingly multi-ethnic student population (Toom & Husu, 2012), it is still rather homogenous compared to the Canadian student population (Beese & Liang, 2010). One major distinction between the two countries’ education systems is that higher education is tuition free for Finnish students in Finland, but costly for Canadian students in Canada.

Although contextual contrasts and comparisons are challenging, I have taken the calculated risk to elaborate on the two cultural contexts of this research. I made this choice because I concur with Wermke and Höstfält (2014), who emphasised that studies on national views of education often overlook historical perspectives and contextualisation. The meaning of autonomy for teachers is related to their own contexts, and the meaning of teacher autonomy can vary on different levels (Salokangas & Wermke, 2016). I therefore argue that it is useful and important to know more, not only about the cultural contexts of education in Canada and Finland, but also about the structural contexts of school organisations in both contexts, to be able to make informed reflections about teachers of this research.

This chapter is meant to present a broad and general picture of educational backgrounds in both contexts. While many of the issues discussed below can each be developed, debated and criticised at length, the purpose of this chapter is to provide the reader with an overview of the contexts, providing basic grounds to compare and understand the findings and discussions yielded by this research.

2.2 The cultural context of teachers in the Canadian province of Quebec and in Finland

Quebec’s schools were mostly private until the Quiet Revolution of the 1970s, which brought a strong movement of secularisation and social welfare, making
public schools available for everyone (Desjardins & Thomas, 2015; Tardif, 2013, see also Bégin-Caouette & Jones, 2014). During the 1980s, the work of teachers started to change more significantly, due to non-teaching staff engaging in the classroom (Tardif, 2013; Tardif & Borges, 2014). It was then argued that teachers had to share the management of their classrooms and teaching activities, which until that point had been the teachers’ prerogative only. Teachers were therefore expected to work collectively with counsellors, nurses, psycho-educators, psychologists, speech pathologists, teacher assistants, parents, etc. This meant that teachers took on new tasks and collaborations in addition to their existing work load, although they remained restricted to the same amount of working time (Tardif, 2013; Tardif & Borges, 2014).

Teachers are subject to an increasing amount of pressure and their work is getting heavier and more complex. This is not necessarily due to more hours or students per classroom, but to the increasing mental and emotional burden (LeVasseur, 2015; Riel & Messing, 2011; Tardif, 2013). Teachers currently have to make use of a more varied array of skills, and the diversity of roles teachers must take on causes tensions and contradictions in their work (Riel & Messing, 2011). The complexity of their work is due in part to the succession of educational reforms—in other words majors changes brought to the education system (Fullan, 2012; Wiener, 1999), implemented by more than 14 education ministries over the past three decades, which have left incoherence in their wake (Tardif, 2013). As a result, teachers’ work is increasingly demanding and is radically different from what it was after the Quiet Revolution. School has changed: From a place of instruction, it has become a life environment. In that context, teachers are now expected to entertain, animate, support (academically and emotionally), integrate, differentiate, individualise, and teach their topics for their students, some of whom do not speak the language of instruction (Tardif & Borges, 2014).

In Quebec, teachers have contested expertise and low autonomy. In other fields where people have masters degrees, such as law or engineering, professionals have control over many aspects of their profession, but teaching professionals are not that fortunate (Ingersoll, 2003; Tardif, 2013). Unlike lawyers and engineers, teachers have control over only some of the tasks they must accomplish. Everything else is managed or controlled by other groups, resulting in taking some autonomy away from teachers (Tardif, 2013). Teachers, who are supposed to be experts in training, do not get to make decisions about their own training or knowledge bases as other professionals do (Tardif, 2013).
With the lingering incoherence caused by overlapping reforms, the diminished time devoted to teaching, the need to work with new non-teaching actors, and challenges to their expertise, the autonomy and professionalism of teachers in Quebec has become more contested over time (Tardif, 2013; Wiener, 1999). Parents feel entitled and contest the pedagogy dispensed to their children (Deslandes, Barma & Morin, 2015). Tardif (2013) further explained that scholars and international agencies contest pedagogy used in schools. Media contest the pedagogy, especially when school classifications are made and published. This continually perpetuates doubt regarding the teachers’ expertise. There is therefore a general sense that teachers should be monitored, that we should somehow observe them and ask them to report regularly on their work. Consequently, teachers are not autonomous professionals but professionals in a heteronomy situation where other parties control their will, regardless of their initial values or interest (Chirkov et al., 2003; Tardif, 2013). In this context, it is commonplace for anyone who has an opinion about education to feel entitled to tell teachers what to do (Ingersoll, 2003). This constant questioning is progressively undermining the trust once imparted to teachers, exacerbating the trend of monitoring and controlling them (Tardif, 2013). Teachers’ professional status has suffered as a consequence. This undermining is also due in part to the interference from external (unqualified) parties who have consistently cast doubt on teachers’ professional prestige in the specific context of this Canadian province, which also reflects the reality of other provinces (Paradis, 2013).

In Finland, major cultural influences on the country and its citizens come from its joint history with Sweden and Russia until Finland’s independence in 1917 (Niemi, 2012). As a result, a Finnish nationalist movement grew, inspired and promoted by intellectuals and professors, who also had political powers. These leaders valued education, and the education of the nation was a high political priority. The first professorship in education among the Scandinavian countries was established in the University of Helsinki, and “it was closely related [to] teacher education and the role of education in society” (Niemi, 2012, p. 21). In a young Finland, it was believed that in order to have great education, it was important to have great teacher education (Sääntti & Kauko, 2019).

Teachers were seen as important and influential members of their community, as they played significant roles in the cultural life of their community (Niemi, 2012). In 1921, the role of teachers became even more important as basic education became compulsory for all. Teachers were valued in their communities and were supported by the Finnish Lutheran Church: The clergy had been early advocates
for education. Indeed, the Church has required basic literacy skills in order for people to get married since the fifteenth century (Niemi, 2012).

After WWII, welfare concepts emerged in Finland: Education was considered a basic right, based in principles of equality and equity (Niemi, 2012; Säntti & Kauko, 2019; Tirri, 2014). In 1968, a single nine-year basic education for all was implemented. This resulted in a rather centralised education system for the decades to follow, which was changed by a generalised decentralisation movement in the 1980s to enhance the authority and responsibility of local actors in education (usually municipalities) (Errs et al., 2016; Niemi, 2012; Sahlberg, 2011; Säntti & Kauko, 2019; Tirri, 2014). Municipalities were responsible for writing their curricula based on the national core curriculum and for the quality of education in general.

Since 1979, teachers in Finland must possess a masters degree in order to teach (Niemi, 2012; Toom et al., 2010). A research-based education has become increasingly important, as it grants teachers abilities to include research in their teaching (Kansanen, 2003; Pyhältö, Pietarinen & Soini, 2014; Säntti & Kauko, 2019; Tirri, 2014; Toom et al., 2010). This enhanced the trust imparted to teachers in general. The trust culture in Finland provides teachers with liberties in delivering the curriculum, designing teaching material, and designing their teaching itself (Halinen, Niemi & Toom, 2016; Säntti & Kauko, 2019; Tirri, 2014; Toom & Husu, 2012). There is a general understanding among Finns that Finnish teachers enjoy fairly high autonomy (Sahlberg, 2011; Simola, 2005; Toom & Husu, 2012).

In Finland, teachers’ expertise has been well established over the years and thus far has not been regularly contested by principals, parents, media or other agencies. Principals in Finnish schools have similar expertise: Most of them are teachers who have continued teaching classes while carrying out their duties as principals (Niemi, 2012). Principals of Finnish schools usually embrace distributed leadership (Paulsen et al., 2016), which grants teachers the opportunity to make decisions inside and outside their classrooms (Toom & Husu, 2012). A majority of Finnish teachers belong to the same trade union (Opustulan Ammattijärjestö [Trade Union of Education], 2017). This powerful trade union advocates for good professional status for teachers and has in the last few decades played a significant part in all major reforms in education (Niemi, 2012). In 1988 the trade union published ethics principles for teachers to abide by, which further bolstered the professional status of teachers in Finland (Tirri, 2014). This professional status, as well as the strong union, contributed in teachers being developers of their profession: “Teachers are expected to be able to take an active role in evaluating and improving schools and
their learning environments” (Niemi, 2012, p. 38, as cited in Teacher Education Development Programme, 2001). This particular teacher status has consistently drawn some of the most motivated students into the profession (Kansanen, 2003; Tirri, 2014; Toom et al., 2010). Consequently, teachers’ autonomy is restricted by fewer limitations than that of teachers from other countries (Tirri, 2014; Vulliamy, Kimonen, Nevalainen & Webb, 1997), since Finnish teachers are recognised as holding pedagogical and research expertise in their field (Toom et al., 2010). Research has even attributed the Programme for International Student Assessment (PISA) successes in Finland to the autonomy of their teachers (Salokangas & Wermke, 2016). Teachers in Finland are highly thought of by most people in the country, which differs from the treatment of Canadian teachers.

2.3 The structural context and school organisation in Quebec and Canada and in Finland

In this sub-chapter and for each context, I will provide some details about the general organisation of the different education systems, the organisation of teacher education, the specific training of mathematics teachers, and the teaching of mathematics itself. This structural context information will allow the reader to gain perspective on the practical education and work of teachers in both countries. To give insight and be more specific, I will present the example of the education path followed by mathematics teachers in Canada first, then in Finland.

In Canada, public schools are funded by the federal government and basic schooling is tuition-free (Davidson-Harden & Majhanovich, 2004). Students specifically in Quebec start their compulsory education in kindergarten at 5 years old and continue onto primary education until grade 6, after which they move on to what is called “secondary education” for five years (Lenoir, 2010). Towards the end of secondary education, which can be referred to as the upper-secondary education stage, all students take the same provincial ministerial examinations, where their grades determine whether they can (voluntarily) pursue college and higher education. Upper-secondary school education, leading to these high-stakes examinations, is the particular focus of this research.

To become a mathematics teacher in Quebec, after secondary education, one has to attend a college, collège d’enseignement général et professionnel (CEGEP), which is unique to the province of Quebec (Laferrière, 2001), before choosing a higher education field of study (Bégin-Caouette & Jones, 2014; Lenoir, 2010). CEGEPs are subsidised by the provincial government (one pays approximately 300
euros per year to attend), and generally offers two main study avenues: a pre-university education for two years, or a technical training for three years (Lenoir, 2010). To become a mathematics teacher, students generally enroll in the pre-university track, studying natural or pure sciences with a focus on mathematics and other sciences.

College students then go to universities where they have to pay fees to attend (approx. 2200 euros per year in Quebec, according to various criteria). The competition is not very stiff to be admitted in the education university programmes, but once admitted, everyone has to complete a “long” bachelor’s degree in education. This is a four-year programme in which students must maintain a minimal point average to continue their studies (Lenoir, 2010). As such, students choose to be mathematics teachers from the beginning of their higher education. Regarding the specifics of these studies, as they may vary slightly from one university to the other, I chose to present the requirements of the university I attended myself, the University of Quebec in Montreal. Students in mathematics education study as follow: 25 per cent of study credits are allocated to general education and pedagogy, while 60 per cent are dedicated mainly to the didactics of mathematics and some pure mathematics courses. In most universities, 15 per cent of study credits are dedicated to three teaching practices, which equal approximately 700–900 hours of mainly independent in-class teaching internships (Laferrière, Sheehan & Russell, 2003; Lenoir, 2010; Thomas & Beauchamp, 2011; Thomas & Desjardins, 2013). Because teaching programmes in Quebec put such a strong emphasis on practice, students are required to do only little academic research and do not have to write a thesis.

Once students graduate with their teaching degree, have passed an extensive language test, and obtained their teaching certification, they can be hired as teachers in secondary schools in Quebec. Regarding the hiring situation of Quebecois teachers in 2011, around half (54 per cent) of them held a permanent position and 43 per cent held precarious positions (Tardif, 2013), which often come with demanding tasks, difficult students and difficult schools. Nevertheless, teachers of specific topics in the second cycle of secondary schools teach students who will take ministerial examinations at the end of their upper-secondary school studies. Given the presence of those high-stakes examinations, accountability for high grades has become a problem for Canadian teachers, whereas it was not that big of an issue in the past (Pelletier, Séguin-Lévesque & Legault, 2002; Pelletier & Sharp, 2009). Teachers report being held accountable for their students’ results, and teachers’ performances are assessed based on those results (Pelletier et al., 2002;
Pelletier & Sharp, 2009). In general and in many specific contexts, even greater pressure is placed on mathematics teachers (Meng & Liu, 2009; Perryman et al., 2011), who are responsible for courses specifically leading to final upper-secondary school examinations. With such intense pressure to perform, the implementation of reforms has been especially stressful for teachers.

For instance, in the early 2000s, the Quebec Ministry of Education implemented a provincial reform which significantly changed the education of the time. That reform, Le Renouveau Pédagogique, affected all levels and subject matters and significantly changed the work of teachers. The new ideology this reform instituted changed many aspects of Quebecois teachers’ work, which left them struggling because they were neither ready nor sufficiently prepared to undertake those changes (Bissonnette, Gauthier & Richard, 2005). This example illustrates that teachers in Quebec are usually not involved in the elaboration of reforms, which is different for teachers in Finland.

Basic schooling in Finland is free of charge and consists of nine years of compulsory schooling, which students begin when they are 7 years old (Kansanen, 2003; Kupari, 2008). Schools are managed locally, for the most part, and thus far offer a consistent quality of teaching in urban and rural areas across the country (Kupari, 2008). After basic education, 16-year-old students can choose to attend vocational education for two to six years. A more popular option, which over 50 per cent of students choose after completing basic education, is to attend upper-secondary schools for three years, ending with a matriculation examination (Kansanen, 2003). These examination results are required by about 73 per cent of those upper-secondary school students who apply for tertiary education (Official Statistics of Finland, 2018). This upper-secondary education, leading to a high-stakes examination, is the focus of this research.

To become a mathematics teacher in Finland, students usually choose the upper-secondary school route, leading to university. There is stiff competition to enter teacher training in Finland (Toom et al., 2010; Toom & Husu, 2012). Although there are some minor variations across universities and teacher education programmes, the structure of these programmes across Finland is fairly consistent (Kansanen, 2003; Kupari, 2008; National Academies of Sciences, Engineering, and Medicine, 2018; Niemi, 2011). In order to graduate, primary and secondary school teachers must both complete a three-year bachelor’s degree, a two-year masters degree, and a thesis based on research (Toom et al., 2010). Primary school teachers, whose acceptance rate to programmes is less than 10 per cent (National Academies of Sciences, Engineering, and Medicine, 2018; Toom & Husu, 2012), are trained as
generalists to teach grades 1–6. Secondary school teachers are often subject teachers, who are trained to teach their chosen topics in grades level between 7 and 12 (Kansanen, 2003; Niemi, 2011). These subject specialists commonly work in different schools, e.g., as lower-secondary school teachers (grades 7–9) in one school or as upper-secondary school teachers (grades 10–12) in another. This latter category is the one addressed in this research.

The focus of upper-secondary school mathematics teachers’ university studies is generally on a major in mathematics, a minor in another subject matter and a minor in pedagogy, which can also be taken in polytechnics. This training qualifies them to teach at any level of secondary school (Kansanen, 2003; National Academies of Sciences, Engineering, and Medicine, 2018). This programme is also competitive, with 57 per cent of candidates being accepted in 2015, but it is not nearly as competitive as primary school teaching programmes (National Academies of Sciences, Engineering, and Medicine, 2018). In fact, it has been reported that the interest in mathematics teaching has decreased over the years, that there has been a decline in the number of talented mathematics teachers candidates applying for upper-secondary school level training and that the general interest in studying mathematics as a topic has also decreased (National Academies of Sciences, Engineering, and Medicine, 2018).

The major training for upper-secondary school mathematics is usually organised by mathematics faculties (Kansanen, 2003). Students study for about two years, primarily mathematics topics such as statistics and geometry. After that, students can decide to pursue their studies to become a subject teacher, which means applying for a teacher education minor to be undertaken in parallel with the mathematics studies (Kansanen, 2003). As such, a student coming from upper-secondary school does not have to choose to be a mathematics teacher right away. This creates a difference between primary and upper-secondary school teachers; the former specialises in education and pursues education as a first career choice, which is not necessarily the case for upper-secondary school teachers (Kansanen, 2003). While variations from one university to the other can occur, subject teaching study programmes in Finland are organised as follows: 60 per cent of the study credits are devoted to a bachelor’s of mathematics (plus one or two other minor subjects), 20 per cent to pedagogy studies (including philosophy and history of teaching, theory and practice of didactics, research methods about subject and social basis of education, and about 6 per cent for teaching practice) and a substantial part (20 per cent) are reserved for research and thesis work (Kansanen, 2003; Kupari, 2008; Toom et al., 2010).
Once students graduate with their masters degree and obtain their certification, they can be hired as certified mathematics teachers to teach in lower or upper-secondary schools in Finland. OECD (2003) reported on over 7,800 upper-secondary school teachers in Finland, of whom 94 per cent were full-time teachers. In those upper-secondary schools, students will study for an average of three years and take a matriculation examination at the end of their studies. This matriculation examination assesses all the content learned during their upper-secondary schooling and the grades the students earn have a major impact on which universities will accept them (OECD, 2003). Therefore, the matriculation examination is crucial to these students’ future, and teachers are accordingly aware of the implications of their teaching and assessments (Webb et al., 2004).

In conclusion, this sub-chapter generally illustrated how the Canadian and Finnish structural contexts compare practically. The details provided in this sub-chapter are useful in understanding that the path to become teachers in both countries is similar in many ways, but that Quebec’s upper-secondary school mathematics education emphasises practical work and internships while Finnish teacher training emphasises research.
3 Teacher autonomy as a concept

In this chapter and Chapter 4, I locate my research within the field of education and within narrative teacher research. In this chapter, I will present previous research about teacher autonomy and introduce different concepts that have been related to teacher autonomy. By the end of this chapter, all of the most important concepts addressed in Articles I, II and III will be woven together and present the theoretical lens through which I understand teacher autonomy as a concept, and how I understood teachers talking about their own autonomy.

3.1 Mapping the concept of teacher autonomy

The concept of autonomy has a long history, lodged mainly in individualism, promoting individualistic values of freedom especially esteemed in Western contexts (Berka, 2000; Chirkov et al., 2003; Dworkin, 1988; Smith & Ushioda, 2008; Stoljar, 2013). An autonomous agent has been traditionally characterised as one who “reside[s] in an impenetrable inner citadel, a place immune from external influences” (Nelsen, 2010, p. 334) and has been generally defined as an individual able to make choices without undue interference from external parties (MacDonald, 2002a; Mackenzie & Stoljar, 2000; Meadow, 2015; Sherwin & Winsby, 2011; Stoljar, 2013). Autonomy is undeniably important in educational contexts.

In the education literature, teacher autonomy relates to a variety of topics and persons; from organisations and individuals, to global policies and reforms (Ball, 2000; Erss et al., 2016; Levin, 2001). The literature on education addresses autonomy related to individuals such as students and teachers, and their work together (Benson, 2010; Jiménez Raya, Lamb & Vieira, 2007; Sinclair, McGrath & Lamb, 2000; Smith & Erdoğan, 2008). At times, teacher autonomy is viewed as a by-product or pre-condition to enhance the learner’s autonomy (Lamb & Reinders, 2008; Little, 1995; Parker, 2015; Salokangas & Wermke, 2016; Shaw, 2008; Smith & Ushioda, 2009). Indeed, the literature about teacher autonomy has tended to focus on all kinds of students’ benefits in either language learning (Benson, 2000; Sinclair, McGrath & Lamb, 2000; Smith & Erdoğan, 2008) or in autonomy support for students from all levels (Cakir & Balcikanli, 2012; Warfield, Wood & Lehman, 2005). The focus on students remains in discussions about reforms in education, which are mainly designed and implemented for the students’ benefits. However, such reforms often have major cognitive and emotional impacts on the teachers’ work and autonomy (Day, 2002; Helgøy & Homme, 2007; Pearson & Moomaw,
2005). It is therefore important to consider the unforeseen ramifications which reforms have on teachers and their autonomy (Day, 2002; Sachs, 2001), especially as reforms in education are deemed to be planned changes to schools or schooling, often imposed on teachers by individuals or bodies outside the classroom (Ball, 2003).

Teacher autonomy literature discusses language teachers extensively (Benson, 2000; Sinclair, McGrath & Lamb, 2000; Smith & Erdoğan, 2008). While this is important, little research has been devoted to mathematics teacher’s autonomy (Blömeke & Klein, 2013; Robertson & Jones, 2013; Strong & Yoshida, 2014). Upper-secondary school mathematics teachers face immense pressure related to student performance and outcomes (Perryman et al., 2011). In a practical sense, upper-secondary school mathematics teachers in both countries have to prepare students to take an external high-stakes assessment towards the end of their studies (Couture & Murgatroyd, 2012): ministerial examinations in Canada and matriculation examinations in Finland. In the two cases, teachers bear in mind that grades from these assessments will affect students’ university admissions. As such, upper-secondary school mathematics teachers seem to face even greater pressure than other subject teachers (Meng & Liu, 2009), which can, a fortiori, affect their perceptions of autonomy. Research also indicates that mathematics teachers in general often require more autonomy in their teaching than other subject teachers (Blömeke & Klein, 2013). Only a limited number of studies about the autonomy perceptions of mathematics teachers can be found. They either address the relationship between autonomous students and autonomous teachers (Warfield et al., 2005), or the relationship between autonomy and approaches to teaching mathematics (Skott, 2004). Research about teacher autonomy pertains in part to the topics teachers teach, but also to personal and interpersonal elements which impact how teachers perceive their autonomy.

Previous research associated teachers’ autonomy with their self-confidence, which is often impacted by teachers’ relationships with others. Research identifies self-confidence as a condition for teachers to feel autonomous (Govier, 1993; Littlewood, 1996; Spratt, Humphreys & Chan, 2002); however, it can be argued that a sense of autonomy can help teachers feel self-confident (see Article I). Considering this intricate entanglement, the fluctuations brought to either teacher autonomy or self-confidence can have profound ramifications for teachers, leading teachers to become reactive or to leave the profession (see Article I). Teachers’ sense of autonomy is therefore delicate and related to other personal concepts and relationships.
Previous research has identified trust as being important in discussions about teacher autonomy (Adams & Forsyth, 2010; Blömeke & Klein, 2013; Bryk & Schneider, 2003; Edwards-Groves, Grootenboer & Ronnerman, 2016; Farini, 2012; Kochanek, 2005; Louis, 2007; Lundström, 2015). Those discussions pertain to professionals generally being trusted by society, allowing professionals to fulfil their duties in expert and uncoerced ways (Lundström, 2015). However, when teachers enter this trust equation, the parameters change. Indeed, studies have indicated that the trust granted to teaching professionals is established upon their behavioural history or other larger social discourses (Adams & Forsyth, 2010; Bryk & Schneider, 2003). More specifically, many studies have focused on the most contentious trust relationships in schools, which are those between different hierarchical positions—in this case, between teachers and principals (Bryk & Schneider, 2003; Louis, 2007). Not disregarding the importance of this relationship, other important relationships discussed in the research at hand also involve trust, for instance teachers’ relationships with parents or colleagues.

3.2 The current conceptualisation of teacher autonomy

In the next three sub-chapters, I will review the definitions and conceptualisation of teacher autonomy that are present in prior research. This sub-chapter will highlight the current knowledge about the concept of teacher autonomy but also the necessity for developing this concept.

3.2.1 Teacher autonomy as vague and contested

The concept of teacher autonomy has been defined in many ways in previous research, resulting in inconsistent and vague meanings (Aoki, 2000; McGrath, 2000; Skaalvik & Skaalvik, 2009; Strong & Yoshida 2014). Hence, the meaning of autonomy for teachers is embedded in the discourse in such a way that it often remains largely unquestioned and laced with assumptions as to what it really means (Shaw, 2008). Illustrating the vagueness of the meaning, Lepine (2007) asked two groups of teachers to describe their work. All of the teachers explained their work as being composed of similar actions, and yet one group saw themselves as having high levels of autonomy while the other perceived the opposite. Even without a clear or unique sense of what it entails, teachers do discuss their autonomy as an important part of their work. Research indicates that it is common for teachers to desire more autonomy, regardless of the autonomy they already have (Strong &
Yoshida, 2014). This could be potentially problematic: While one should always strive for improvement, if teachers consistently feel they should have more autonomy, they may end up feeling unsatisfied and possibly frustrated with the autonomy they do have in their work.

While teacher autonomy is usually associated with being uncoerced and with esteemed values in society (Berka, 2000; Smith & Ushioda, 2008), it can also be associated with other situations with less positive outlooks. For instance, some teachers perceive autonomy as a way for their administration or principals to delegate work, leaving teachers feeling unsupported or even abandoned in their classrooms (Parker, 2015). Yu-Hong and Ting (2012) maintained that autonomy for one teacher can mean freedom from demands gained through isolation, whereas for another it might mean the freedom to develop collegiality to accomplish tasks. Teacher autonomy can also be seen as a way to dismiss control and accountability from superiors (Berka, 2000). Therefore, it appears important to distinguish autonomy from isolation (Chirkov et al., 2003). Depending on the context and the situation, while teacher autonomy is usually desired, it can also be a source of sorrow.

On one hand, previous research has questioned whether teachers should have to earn their autonomy (Prichard & Moore, 2016); on the other, certain situations and contexts force autonomy onto teachers. According to Wermke and Höstfält (2014) and McGrath (2000), not all teachers are ready or willing to be given all the autonomy possible; they first need to be prepared both attitudinally and technically. Other studies have revealed that some teachers feel forced to be autonomous and to engage with progressive or differentiating teaching practices (Skott, 2004). Similarly, some beginning teachers may not desire autonomy as they are unsure or insecure and would rather be told what to do and how (Hong & Youngs, 2016). While acknowledging those studies, I consider that teachers generally long for autonomy and that teachers should unequivocally be provided with as many opportunities to be autonomous as possible, and support should be provided to enable them to properly manage their autonomy.

The different meanings of teacher autonomy present in the literature reflect the reality that the concept is difficult to define. One way to avoid problems related to vagueness and to advance teacher autonomy as a concept is to let go of assumptions of what teacher autonomy entails and means (Shaw, 2008). Instead, we should delve into research which pertains specifically to conceptualisations of teacher autonomy and their related definitions.
3.2.2 The individual conceptualisation of teacher autonomy

Over the years, previous research has characterised teacher autonomy in rather individualistic terms. The definitions of teacher autonomy pertain to teachers making independent decisions with regard to their own teaching (Shaw, 2008) and the freedom teachers have to make decisions inside their own classrooms (Cakir & Balcikanli, 2012). In the literature, control appears to be an important and recurrent characteristic of teacher autonomy.

A significant line of literature about teacher autonomy remain fixated on control. For instance, pioneers in the field, such as Friedman (1999), Pearson and Hall (1993), and Pearson and Moomaw (2005) developed instruments to assess teachers’ autonomy. While those quantitative studies discuss teachers’ work environments in terms of their autonomy, these authors still focused on the teachers’ capacity to take control over environmental factors. Other influential researchers in the teacher autonomy realm relate their work to Deci and Ryan’s (1985) self-determination theory (SDT). SDT involves structural and personal conditions for autonomy, generally defining autonomy in relation to external and internal motivations or controls over one’s actions. As such, for example, autonomy can be externally limited by imposed pressures or obligations, or enhanced internally if one self-endorses those actions (Chirkov et al., 2003; Deci & Ryan, 1985; Ryan & Deci, 2000). As a result, Benson’s (2008) definition of teacher autonomy is based on freedom from structural and external controls but also on a personal capacity for autonomy. Similarly, McGrath (2000) discussed two dimensions of teacher autonomy: freedom from control from external parties and the inclusion of an internal or self-directed component. These definitions inspired others to discuss teacher autonomy in similar ways (Huang, 2005; Shaw, 2008), who retained the component of teachers working without control from others but adding the psychological component of teachers who must have the internal capacity to act in a self-directed manner. Ultimately, these studies employed an individualistic conceptualisation of teacher autonomy, as their focus resides in the freedom from control, which some linked to an internal capacity for autonomy, located inside the classroom.

Another line of literature about teacher autonomy describes it as a multi-layered phenomenon which includes different areas of operation (at the classroom and school-wide levels) (Strong & Yoshida, 2014), different forms (Frostenson, 2015) and different dimensions (Paulsrud & Wermke, 2019; Wermke, Olason Rick & Salokangas, 2019), many of which are influenced by Ingersoll’s (2003) seminal
study, *Who controls teachers’ work?*, about the duality between too centralised and too decentralised high-schools, yielding teachers with either too little control and accountability or too little autonomy. Frostenson (2015) described three forms of professional autonomy for teachers: general professional autonomy, referring to organisations, legislation, procedures and ideologies (curricula) related to the school system; collegial professional autonomy, referring to teachers’ ability to influence and make decisions for different practice levels; and individual teacher autonomy, referring to the “opportunity to influence the contents, frames and controls of the teaching practice” (Frostenson, 2005, p. 24). Those forms of professional autonomy inspired in parts the intersections of levels and domains where teachers make decisions (Paulsrud & Wermke, 2019; Wermke et al., 2019). Decision-making can occur at the level of the classroom, the school and the profession. The domains of decision-making are educational, social, developmental and administrative (Paulsrud & Wermke, 2019; Wermke et al., 2019). Teachers’ decision-making opportunities change across domains and levels according to the other stakeholders also involved in decision-making. For instance, teachers generally have more say than parents in educational decision-making at the classroom level, but less say than principals in developmental decision-making at the school level. In that sense, and as argued by Ingersoll (2003), teachers’ decision-making opportunities are directly related to those of other stakeholders have. Ingersoll (2003) illustrated this by explaining that when reforms are designed to empower certain stakeholders, it often disempowers other stakeholders by transferring decision-making opportunities from one group to another. In this contention for decision-making opportunities, Ingersoll (2003) and Paulsrud and Wermke (2019) warned about certain stakeholders leaving certain unimportant decision-making opportunities for others to take, thus giving the impression of “ceding autonomy”. It is therefore important to decipher what decisions are important to understand who has the autonomy to make those decisions and how the important balance between control and consent—harnessing the skills of the employee to fulfil the organisational needs—is struck (Ingersoll, 2003, see also Cribb & Gewirtz, 2007). Similarly, Cribb and Gewirtz (2007) noted that teachers’ autonomy cannot be considered in a vacuum and that the autonomy of educational stakeholders affects and is affected by the autonomy of other stakeholders. This highlights that teacher autonomy does indeed have a social dimension (Wermke et al., 2019) and that a conceptualisation of teacher autonomy needs to be addressed from more relational viewpoints as well. Even if teacher autonomy has been deemed multidimensional in this line of literature, and that to some extent it
expands slightly on the traditional conceptualisation in not being limited to the classroom or exclusively to the individual, what remains central is that the concept of teacher autonomy is still defined by control or by the freedom from control.

As teacher autonomy is predominantly defined in terms of freedom from control, it is important to study teacher autonomy in that way as well. Articles I and II were written as such, so I used Gwaltney’s (2012) definition of teacher autonomy, which refers to an individual conceptualisation of teacher autonomy. Gwaltney claimed that autonomy is encompassed by “the degree to which teaching provides substantial freedom, independence, power, and discretion to participate in scheduling, selecting, and executing administrative, instructional, and socialization and sorting activities both in the classroom and in the school organization at large” (p. 22). This comprehensive definition of teacher autonomy focuses largely on areas of operation and on elements provided to teachers via their autonomy, all of which relate to different extent to freedom from control. In line with this definition, and as definitions and conceptualisations of teacher autonomy have a long tradition of correlation with freedom from control, it is important to understand what those controls entail.

### 3.2.3 Controls on teacher autonomy

While many controls on teachers’ autonomy are external, some of them are regulated internally (Chirkov et al., 2003; Deci & Ryan, 1985; Ryan & Deci, 2000). I will therefore briefly discuss internal controls and then address the many different types of external control exerted on teachers.

The self-determination theory (SDT) approaches autonomy with an ample focus on the psychological capacities of individuals, discussing autonomy in terms of internal conformity on a spectrum. In those terms, autonomy is defined as the degree of volition, i.e., the extent to which one individual endorses an action or a behaviour (Chirkov et al., 2003; Deci & Ryan, 1985; Ryan & Deci, 2000). On this spectrum, individuals are considered least autonomous if their actions are motivated by external regulations, such as gaining privileges or avoiding reprimands. The most autonomous individuals are those who either make decisions to endorse a certain behaviour or those who accept a given behaviour as one they feel is needed. In the context of my research, this could mean that whatever teachers are required to do—to teach to the test, for example—if they self-endorse or support such actions, their autonomy is not undermined by external demands due to their internal level of conformity. They may therefore consider themselves autonomous.
On the other hand, individuals who do not self-endorse teaching to the test might perceive themselves as externally controlled. Thus, in this volition spectrum, a sense of autonomy does not necessarily imply that there are no pressures or extrinsic influences put on that person or on the actions. Autonomy can still be perceived in the presence of external controls as long as the teacher does not feel subjugated, insecure, powerless or torn between conflicting interests.

Whether teachers endorse what is asked of them or not, some external controls on their work and autonomy are undeniable and often come with consequences. High-stakes examinations, especially in upper-secondary schools, are a good example of external control on teachers’ work and autonomy. This concern was addressed by Perryman and colleagues (2011), who reported on the pressures felt by mathematics teachers in particular when facing such exams. These teachers are generally held accountable for producing high grades for themselves, their students and the school in general, as they are consequential in university admissions and school rankings (Meng & Liu, 2009; Perryman et al., 2011). The consequences of stakeholders imposing disproportionate demands and accountability on teachers are manifold. They can affect teachers’ perceived autonomy (Pelletier & Sharp, 2009; Prichard & Moore, 2016) and may in turn induce a perceived loss of control and loss of a feeling of professionalism (Perryman et al., 2011). Incentives related to the high-stakes examinations often prompt teachers and schools to identify strategies to improve grades (Au, 2011; Perryman et al., 2011). This can be manifested through standardised testing promoting standardised teaching, which in turn deskill and disempower teachers, impairing their sense of professionalism. It has been demonstrated that teachers who perceive their autonomy to be constrained are less likely to support the psychological needs of their students (Leroy, Bressoux, Sarrazin & Trouilloud, 2007). With an increase in the constraints imposed by outside parties comes an increase in teachers’ tension (Andra, Liljedahl, Di Martino & Rouleau, 2015; Rouleau & Liljedahl, 2016), frustration and anxiety (Pearson & Moomaw, 2005), as well as an increase in teachers demonstrating controlling, imperious and authoritarian behaviours towards their students (Pelletier & Sharp, 2009). Differently, when teachers are trusted and provided with decisional opportunities as a policy or at their superiors’ discretion, teachers’ sense of professionalism is enhanced, which substantially promotes a positive perception of their autonomy (Helgøy & Homme, 2007; Pearson & Moomaw, 2005).

Previous research has also discussed the external controls on teachers in the context of reforms. As a part of a larger global phenomena, educational policy borrowing has spread and often imposes contextual changes on teachers (Ball,
Wermke and Höstfält (2014) explained that too often policy transfers from one context to another are too hasty and under-theorised, despite being at the centre of media and political attention. As the general public and media are increasingly criticising education in many countries, this is legitimising the need for politicians to constantly and consistently reform teaching and education (Ball, 2003; Perryman et al., 2011). Day (2002) reported that a global phenomenon of governmental intervention in testing, curricula and pedagogy is being imposed on teachers, and regardless of the context, such reforms always happen for the same reasons and with the same outcomes; to accelerate student learning and competitiveness, resulting in teacher destabilisation and increased work. Teachers then see their professionalism undermined as their autonomy is transferred to managers, who are the ones shaping reforms for performativity (Ball, 2003). Thus, the multitude of reforms, new limits and measures adopted to determine and monitor students’ (and teachers’) achievement is eroding teacher autonomy (Day, 2002). Day, Elliot and Kington (2005, p. 564) mentioned that: “reform policies in many countries in recent years have led to deterioration in the working conditions of teachers, in turn producing demoralisation, abandonment of the profession, absenteeism, and a negative impact on the quality of education offered to students”. Many such reforms have significant consequences for teachers, such as stress and burnout. While reforms can be significantly detrimental, they could be successful and benefit both teachers and students if they were implemented with teacher involvement and support, if they clearly demonstrated benefits for the students, or if they allowed for self-initiated change on the part of teachers (Hargreaves, 2004). For reforms to be successfully initiated and implemented, it is imperative for teachers to be included and for their autonomy to be considered (Pearson & Moomaw, 2005).

Traditions and culture affect the way in which the convergence of trends in educational reforms unravels (Ers, 2015), as they do not affect all areas of the world in the same way. As this research is rooted in different contexts, it is important to discuss the implications of different controls, at times related to reforms, which are specifically bound in this research to the Canadian and Finnish contexts. This was confirmed by Pyhältö and colleagues (2014), who mentioned that reforms and related controls are perceived by teachers through their own historical and cultural contexts. This is especially important in Canada and apparent in Article I, where it was discussed that teachers in general can be enthused by reforms if they can see real benefits for their students. Nevertheless, teachers need time and space to adopt and adapt reforms, a process which can be facilitated by
school administrations which are often responsible for the smoothness and rigor with which reforms are implemented. Over time, working with the reform outlined in Article I, teachers in that same context reported external constraints related to covering all the objectives of the curriculum and to comply with demands from their principals (Pelletier et al., 2002). Canadian teachers reported that administrators may impose various deadlines on teachers while directing their teaching methods. They may also make teachers accountable for the students’ results, assessing the teachers’ performances based on those results (Pelletier & Sharp, 2009).

In Finland, reforms have been subtler in their implementation, and Finnish teachers’ reactions to reforms have been studied. Pyhältö and colleagues (2014) presented three ways for Finnish teachers to react to reforms, according to the way teachers were involved in the reform process. If teachers were involved with reforms which aligned with their contexts, skills, knowledge and beliefs, teachers may adapt or directly adopt the reform, but without such involvement and alignment, teachers could ignore the reform. Regarding controls on Finnish teachers, the literature has acknowledged that limits on autonomy for teachers to change their practices according to policies are rather mild compared to other countries (Vulliamy et al., 1997). However, it was reported that Finnish teachers do experience some hindrances in their work, which revolve mainly around curricula (objectives and pedagogy to be covered) drafted at the national level and how they are applied in classrooms (Webb & Vulliamy, 1999). Some Finnish teachers who worked in upper-secondary schools reported (Webb et al., 2004) being concerned that the results of the matriculation examinations would be used for bad purposes and were designed to reach undesirable ends, such as accountability to municipalities, comparison and ultimately competition between schools and/or teachers. All of these would in the end be even more significant reasons to teach to the test.

Regardless of the context, teachers are controlled internally and externally by others and sometimes through reforms. It is therefore unsurprising to find that a great deal of previous research has offered definitions of teacher autonomy which rely on freedom from control, contributing to an individualistic conceptualisation of teacher autonomy. While those numerous definitions are significant and helpful in building an understanding of teacher autonomy, criticality is needed in order to look and see beyond this individualistic conceptualisation, and realise that teacher autonomy can and should be considered something more than mere freedom from control.
3.3 The relational conceptualisation of teacher autonomy

Many definitions of teacher autonomy view teachers as isolated working entities. These traditional definitions, which contribute to the individual conceptualisation of teacher autonomy, overlook the social and institutional relationships and interdependencies present in teachers’ work. This sub-chapter will address renewed definitions of teacher autonomy which conceptualise it in terms of relationality and collectivism.

One conceptualisation of teacher autonomy, which differs from the traditional and individualistic one, is the relational conceptualisation of teacher autonomy. It involves the important relationality found in the work of teachers, and yet it is hardly used in educational research. Although relational autonomy and its applications are usually discussed in fields such as philosophy or bioethics, the research at hand renders it relevant to education too. This research expands on MacDonald’s (2002a, 2002b) approach, explaining that relational autonomy requires supportive conditions which allow genuine opportunities for a capable agent to act in an autonomous manner (see also Mackenzie & Stoljar, 2000).

MacDonald’s supportive conditions relate to institutional and social relationships (MacDonald, 2002a; Mackenzie & Stoljar, 2002). Institutional relationships can refer to legislative and organisational powers for teachers pertaining to training and credentials, unions or standards of practice (Evets, 2014; Ingersoll & Perda, 2008). Teachers enjoying supportive institutional relationships are more likely to be recognised as qualified and competent professionals and experts, and are more likely to enjoy an overall positive perception of their status of teacher. Supportive social relationships, on the other hand, refer to interpersonal relationships established upon trust and respect among actors. For example, if teachers enjoy supportive and trusting social relationships with parents, principals and colleagues, and if teachers enjoy supportive institutional relationships with a general public which trusts and recognises teachers’ qualifications, expertise and professionalism, those teachers could consider themselves to be autonomous in a relational sense.

While relational autonomy is founded on supportive relationships (social and institutional) (MacDonald, 2002a, 2002b), relational autonomy also depends on whether teachers have genuine opportunities to make autonomous decisions. In this sense, teachers with these opportunities are free to make choices without dreading punishment or the unknown, or without a clear mandate to fulfil (Barfield et al., 2001, see also Chirkov et al., 2003; Deci & Ryan, 1985; Ryan & Deci, 2000).
Arguably, if teachers perceive that they are supported socially and institutionally, they may perceive differently the ways genuine opportunities for autonomous decision-making are provided to them.

The need and pre-eminence of a relational conceptualisation of teacher autonomy over an individualistic one can also be appreciated by considering other critiques of the latter conceptualisation. For instance, one critique argues for better efficiency in collective autonomy (Mausethagen & Mølstad, 2015) rather than individualistic autonomy. It has been reported that the individualistic efforts teachers make to hold on to their individual autonomy tends to weaken the influence teachers have over practice development, whereas a collective effort in doing so is more efficient and sustainable (Heinrich, 2015; Hermansen, 2017). When teachers work together as a group in order to change structural factors of their work, such as governance, knowledge base or teacher education programs, they are working in a collective capacity and thus have collective autonomy (Hermansen, 2017). Teachers working collectively have a better chance to instigate and sustain change, highlighting the importance and potential of non-individualistic autonomy.

As relationality is fundamental to teacher autonomy in this research, related concepts such as self-confidence, isolation and trust will be discussed in the following sub-chapters.

### 3.3.1 Self-confidence

Self-confidence is defined as a positive or negative evaluation or perception of oneself (Chuang, Cheng, Chang & Chiang, 2013; Tett & Maclachlan, 2007) and generally pertains to the level of certainty about one’s general capabilities, personalities or abilities (Morony, Kleitman, Lee & Stankov, 2013). An examination of self-confidence can be performed at the individual and social relationship levels (Morony et al., 2013; Tett & Maclachlan, 2007). This can be exemplified on the individual level by one teacher being successful (or not) in actions undertaken, influencing his/her self-confidence. On the social level, relationships with others may have an impact upon an individual’s self-confidence. For instance, the self-confidence of a teacher evolving in a school where relationships are positive, supportive and encouraging, is likely to grow stronger through social interactions (Tett & Maclachlan, 2007).

Previous literature posits self-confidence as a precondition for autonomy (Govier, 1993; Spratt, Humphreys & Chan, 2002). The opposite can also be true in
light of the constantly changing policy and political environment of teachers. This environment is progressively demanding more of teachers, arguably destabilising them and diminishing their sense of autonomy, and thus playing a role in teachers’ self-confidence. In this sense, Kelchtermans (1996) explained that negative relationships, external pressures and new policies exerted on teachers impose unrealistic expectations on teachers which may weaken their self-confidence. Instead, supportive measures for teachers’ self-confidence should be implemented, as confident teachers are more likely to best support student’s learning (Ingersoll, 2001; Strong & Yoshida, 2014).

3.3.2 Isolation

Often due to negative relationships at work, a number of teachers face major difficulties, particularly in relation to their autonomy. Consequently, teachers may become reactive by excluding themselves, staying hidden with their students behind the closed doors of their classroom (cf. Drago-Severson & Pinto, 2006). As Vangrieken and colleagues (2017, p. 303) mentioned: “The idea of a reactive attitude towards autonomy. ... refers to individuals having the propensity of being resistant to external forces, pushing them away from others’ influences, even to their detriment”. As such, some teachers prefer withdrawal despite the related drawbacks, as they may be apprehensive about the judgement of their colleagues, parents or superiors. It is therefore important to distinguish autonomy from isolation or alienation, self-inflicted or otherwise, as those false equivalences could be ways of giving teachers an illusion of autonomy. While they are different, autonomy and isolation are both impacted by relationships with others. “Isolation has to do with the degree to which an individual feels an affinity to their community’s values, beliefs, and norms of behavior” (Brooks, Hughes & Brooks, 2008, p. 48). As such, when teachers evolve amidst negative relationships and poor school cohesion, the inclination to hide is amplified: Teachers may choose to hide in their classrooms to find some illusionary version of autonomy.

If teachers isolate themselves to work more efficiently towards shared aims with their school organisation, isolation is not necessarily detrimental. Isolation becomes harmful when teachers see it as their only alternative to pressures, judgements, conflicts and negative relationships (Brooks et al., 2008). Whether isolation happens for simple efficiency purposes or for survival, the reasons why teachers seek isolation should be assessed in order to ensure that teachers are not feeling estranged, meaningless, normless or powerless (Brooks et al., 2008). On the
contrary, autonomy should empower and improve the work of teachers. Autonomy should be negotiated in positive and trusting relationships, enriched by collegial interactions and feedback.

3.3.3 Trust

Previous research has highlighted the importance of trust in education (Bryk & Schneider, 2003; Day, 2002; Edwards-Groves et al., 2016; Farini, 2012; Kochanek, 2005; Louis, 2007; Toom & Husu, 2012). The research at hand uses Louis’ (2007, p. 2) meaning of trust “as confidence in or reliance on the integrity, veracity, justice, friendship, or other sound principle, of another person or group”. Applied to teachers, this meaning of trust extends to confidence in and reliance on the integrity and competencies of teachers, as individuals or as a profession, by others (such as parents, principals, students, society and even colleagues). Because trust is formed and sustained in relationships (Adams & Forsyth, 2010), trust is fundamentally relational and relies on each party understanding their own obligations as well as expectations of others’ obligations (Bryk & Schneider, 2003; Farini, 2012; Louis, 2007). Based upon a tacit contract, trust in schools has been built upon shared expectations (Day, 2002) between school actors. Expectations of principals include their support and protection of teachers and their work from unqualified external parties’ interference. Expectations of teachers include the provision of professional expertise and high-quality teaching to the students (Day, 2002; Farini, 2012; Louis, 2007). If both principals and teachers uphold their obligations in systematic and conscious ways, trust can be created, generated, and enhanced between them (Bryk & Schneider, 2003).

However, when obligations and expectations shift, the underpinnings of trust shift too, thereby compromising trust (Farini, 2012). This can be exemplified with the development of high-stakes examinations, shifting both the obligations and expectations placed on teachers and thus destabilising the underpinnings of trust, leaving some principals unsure and feeling like they have to control teachers (Louis, 2007). The shifting or unclear nature of new obligations and expectations can progressively transform trust into growing distrust, which is reported to cause profound harm to all parties involved. Even if individual expectations, emotions, attributes or experiences can influence one’s propensity to trust (Adams & Forsyth, 2010), “trust breeds more trust and conversely distrust breeds more distrust, producing virtuous or vicious circles” (Codd, 2005, p. 204). Teachers who feel distrusted or stuck in circles of distrust are more likely to distrust in return,
impairing their commitment to their school and principals; it erodes their motivation, satisfaction and eventually their sense of autonomy (Farini, 2012; Lundström, 2015; Tardif, 2013).

Various mechanisms are used to establish or maintain trust, even without one’s intimate knowledge of the other party. For instance, a parent could rely on preconceived ideas or on a teacher’s reputation in deciding to place trust in that teacher or not, despite knowing him or her (Bryk & Schneider, 2003). A parent could trust in teachers and the school, relying on institutional trust and the expectation that the institution will uphold their obligations to protect and educate their children (Louis, 2007), despite lacking a prior relationship. Similarly, a parent can trust a teacher based on that teacher’s professional status (Day, 2002), relying on his or her integrity, expertise and competencies to ensure their children achieve the best leaning outcomes. In this sense trust is entwined with professional judgement and autonomy (Lundström, 2015; Toom & Husu, 2012), meaning that trust and teacher autonomy are also entwined. If school actors trust in the professionalism and work of teachers, those actors are less inclined to feel like they have to control teachers and the teachers are consequently less likely to feel controlled (Lundström, 2015), meaning that the teachers are more likely to feel autonomous.

In conclusion, teacher autonomy is a complex concept, rooted in a long tradition. It can mean different things, but the literature emphasises its individualistic nature and shows that it predominantly entails freedom from control. While this individual conceptualisation is important and that those controls need to be addressed, I argue that teacher autonomy should instead be conceptualised in terms of relationships. Teachers’ relationships at work differ in context and involve different aspects such as self-confidence or trust. I argue that the way those relationships are articulated is significantly more relevant to teachers’ autonomy in different contexts than the mere presence or absence of control on their work.
4 Methodology

“In narrative, teachers not only recall and report experience, they repeat it and recreate it. Through narrative, the meaning of experience is reorganized and reconstructed, both for tellers and audiences. In telling their narratives, teachers are rehearsing, redefining and regenerating their personal and professional selves, since self is what we believe ourselves to be” (Cortazzi, 2014, p. 139).

In this chapter, I situate my research as narrative teacher research. Narrative research has largely been used and developed with and for teachers as a means of examining their experiences and knowledge (Clandinin, 2016; Elbaz-Luwisch, 2005), and my research carries on that tradition. Narrative teacher research such as this one aim to consolidate teachers’ experience and knowledge to inform teacher training and practices, and to reconsider views of education (Kim, 2015). Narrative teacher research has been used to uncover how teachers feel and perceive aspects of their work, informing policies, teacher education and curriculum development (Cortazzi, 2014), which is also an aim of the research at hand. This chapter comprises two main sub-chapters: in Sub-chapter 4.1, I will explain my use of narratives, which adheres to a specific ontology, epistemology and methodology. Then in Sub-chapter 4.2 I will describe the methods I used to conduct this research.

4.1 Narrative knowing

In order to highlight my understanding of narratives and their use, I will briefly discuss in this sub-chapter where narratives come from and what they entail. Previous research has defined narratives somewhat strictly as storied plots, having a beginning, a middle and an end (Connelly & Clandinin, 1990; Mattingly & Lawlor, 2000). My understanding of narratives is broader and more in line with Polkinghorne’s (1995) prosaic discourse. Polkinghorne described a narrative as: “any text that consists of complete sentences linked into a coherent and integrated statement. ... The meaning of narrative as prosaic text has been extended to refer to any data that are in the form of natural discourse or speech” (1995, p. 6). In the same sense, I consider narratives simply defined as a “succession of happenings” (Lieblich et al., 1998, p. 2), in which the order of the happenings means more than mere sequence and reveals a “sense of the whole” (Mattingly & Lawlor, 2000, p. 4). While people accounting their experiences can report them in a storied plot, not
all experiences are necessarily reported in that way and it is still important to
account for these (Elbaz-Luwisch, 2005), even if they do not have a proper
beginning or end. The terms narrative and story are occasionally used
interchangeably in the literature; I choose to use the term narrative in the sense
described above.

The narrative paradigm, which Spector-Mersel (2010) placed under an
interpretative-qualitative paradigm, exemplifies the evolution and history of the
nature of knowledge and reality. Sound knowledge has traditionally been equated
to right reasoning or logical argumentation (Bruner, 1987). With the Enlightenment
came a better understanding of the construction of knowledge and reality about the
world based on natural sciences. In this movement, the symbolic world, how people
interact among them and the construction of social reality, have been pushed to the
side for a long time (Bruner, 1991). As a result, our current knowledge about human
interactions’ constructions and representations is still limited.

Since the Enlightenment there has been an important cultural shift in reality
and knowledge production in the movement from modernism to post-modernism.
The latter deemphasises unique master narratives and favours personal, case-to-
local narratives. Moen (2006, p. 60) explained that “There is no single,
dominant, or static reality but, rather, a number of realities that are constructed in
the process of interactions and dialogues. Human knowledge of the world is thus
relative”. This is especially important in framing the epistemology of my research,
as I concur that the plurality of small narratives, which are in constant flux entwined
in social interactions, comprise equally changing and culturally embedded
knowledge (Huttunen, Heikkinen & Syrjälä, 2002). This research uses the
interpretivist approach, broadly underpinned by relativist ontology and subjectivist
epistemology, and relies on the understanding of phenomenon through particular
cases (Spector-Mersel, 2010). In this type of research, as narrators are considered
more important, so is their locality, the larger context and its influences on one’s
narratives of the past, present and future (Swain et al., 2015).

Efforts to make sense of social constructs and the nature of certain social
interactions are more recent in science, and my research contributes directly to that
construction of knowledge and reality. Considering the fluidity and multifaceted
nature of constructed social reality (Spector-Mersel, 2010), my research focus
resides in individuals constructing knowledge based upon their cultural ties,
relationships and experiences. The constant mutual influence that society and
individuals’ minds have on one another implies that an individual’s context, history,
and location in specific time fundamentally influence that person’s development, which is made clear through narratives.

4.1.1 Narratives as windows

To deepen the understanding of human development, one must consider the social context in which individuals evolve and avoid considering individuals in isolation (Moen, 2006). One way to consider both individuals and context without running the risk of compartmentalising either is to use narratives. In this sense, Moen (2006, p. 59) suggested that “Narratives are not broken into elements; they are neither reductionistic nor static. Narratives, rather, enable us to study teachers and their teaching in movement, in a process of development, and within the teachers’ social, cultural, and institutional settings”. In that sense, narratives illustrate personal experience indelibly to the context in which they evolve; they are an insight into and representation of both personal and contextual elements. As narratives of this research are performed in the immediate presence of an audience (the interviewer), inextricably linked to the field of education and embedded in specific cultural meta-narratives, their meanings are bound to be influenced by all of the above spheres of context (Spector-Mersel, 2010). Choosing to study teachers’ narratives thus provided me with windows into individual teachers, their reality and understandings, experiences and perceptions, contexts and culture (Cortazzi, 2014; Lieblich et al., 1998, Mattingly & Lawlor, 2000; Moen, 2006). In the following sub-chapters, the use and importance of narratives will be explained through such partly overlapping windows: into individuals, and into contexts.

Narratives as a window into individuals

Human cognition organises thoughts in two distinct but complementary ways in order to make sense of one’s reality and experiences (Bruner, 1986, Polkinghorne, 1995). Accordingly, the first mode, paradigmatic, resembles to a logical, verifiable and testable mathematical proof. The second mode, the narrative mode, is concerned with believable and attention-grabbing organisation and delivery of meaning attributed to particular experiences. A “colder” paradigmatic thought construction often moves from empirical evidence to a more abstract level, whereas a more “soulful” narrative construction tends to encompass greater ideas and concepts into the ordinary experiences, as “Narratives take as their ostensive reference particular happenings” (Bruner, 1991, p. 6). While both modes of
cognition are necessary to maintain the richness of thought, they function differently. For example, if a teacher experiences discrimination and wants to convince others in different ways (Riessman, 2008), he/she can either build a logical argument based on evidence or organise it in a good narrative. While believability is important for the two modes, they will have different implications. The logical argument is more oriented towards the “truth” whereas a narrative is more concerned with its relatability (László, 2008).

Personal narratives encapsulate the coexistence and interdependence of the individual and its context. Personal narratives, then, are seen as tools to make sense of or represent the reality which is singular to the narrator (Heikkinen et al., 2012; Polkinghorne, 1995; Spector-Mersel, 2010; Swain et al., 2015). Therefore, when people convey narratives, they are communicating their construction, representations and meaning-making of selected experiences which have been organised in specific ways (Cortazzi, 2014, Rosenthal & Fischer-Rosenthal, 2004; Spector-Mersel, 2010). A narrative can encapsulate a variety of elements, such as “plans for the future, commentary, wished-for unrealised occurrences, generic descriptions, reports and stories” (Cortazzi, 2014, p. 58).

The human mind strives to constantly prove, solve and explain things and experiences, and narrative does that intuitively (László, 2008). For instance, by organising and integrating events on a timeline, people emplot narratives (Hinchman & Hinchman, 1997). Emplotment attributes meaning to events which could have otherwise been considered insignificant if considered individually. In this sense, narratives can be seen as a habit of the mind, something which renders our reality or the human existence meaningful, something which helps us organise our experiences and build sense and reality of our world (Cortazzi, 2014; Mishler, 1986). This was exemplified by Elbaz-Luwisch (2005) when she described a morning routine of getting up early, brushing one’s teeth and then making coffee. Each of those actions in themselves are not really meaningful when strictly experienced through the senses of hearing the alarm, feeling the toothbrush, smelling and tasting the coffee. Elbaz-Luwisch explained that through reflecting on and narrating those automatic happenings, people attribute meaning to the experiences, thereby rendering them meaningful. For example, while narrating one’s morning routine, waking up to an early alarm could indicate commitment to work life, feeling the toothbrush could represent adhering to hygiene standards, smelling and tasting coffee highlights the experience of waking up and getting one’s brain ready. Narratives are renditions of experienced and re-experienced events explaining them, making sense of them and creating “verisimilitude” for an
audience to relate to the narratives. In this context, emplotment has a more aesthetic function (such as coherence or relatability) than that of “history”, which has a mandate of accuracy (Hinchman & Hinchman, 1997).

People tell narratives to draw together events into a whole, aiming towards a specifically directed outcome (Polkinghorne, 1995, based on Ricoeur, 1981). The outcome can vary depending on the purpose of the teller. Often a narrative will convey a message intended to convince an audience, create empathy, convey a meaning, motivation or emotion, or legitimise actions and though processes while attempting to remain as relatable as possible and convey verisimilitude (Bruner, 1986; Connelly & Clandinin, 1990; László, 2008; Lieblich et al., 1998; Mattingly & Lawlor, 2000; Mishler, 1986; Moen, 2006; Polkinghorne, 1995; Riessman, 2008). In the context of this research, during the interviews, teachers conveyed narratives as their versions of their own experiences, selecting and sequencing the events and what they meant. In this sense, Denzin (1989, p. 37) explained: “a narrative is a story that tells a sequence of events that are significant for the narrator and his or her audience”. I concur to some extent with Denzin in the idea that narrators read their audience and can modify their narratives accordingly. However, as I will explain later, with regard to why a narrative is created speaks to its character: if a narrative is created for meaning making, its representation of the narrator’s reality is more genuine than that of a narrative created to perform the conveyance of a message specifically tailored for an audience.

People invent, confirm and realise themselves through narratives. By telling what happens, the narrator freezes in time what that experience meant in that particular time and space. The more people repeat a narrative, the more “real” or “out there” it becomes for them, and the more rehearsed it becomes for the audience (Cortazzi, 2014). People often make sense of or reinforce events in their minds rather than in the “real world” when they tell narratives (Bruner, 1986). People construct and establish their identity through narratives (Bruner, 1991)—with memories of their past and expectation of what is to come (Hinchman & Hinchman, 1997). As a life story is told and retold, it in turn shapes and reshapes one’s personality and reality over time (Lieblich et al., 1998; Polkinghorne, 1995). Riessman (2008) explained that our narrating of the past changes as we do: As we consistently change, our narratives may include new relations between events which we did not see before, or change the nature of relationships between the different actors in the narratives. In the research at hand, teachers’ narratives can crystallise their reality of the moment as the narrative is told and repeated,
(re)structuring and (re)defining thoughts and experiences, their own behaviours and those of others (Moen, 2006). Narratives in this research thus offer a window into the minds of teachers.

Narratives as a window into contexts

Narratives are culturally embedded in contextual and dialectic conventions, reflecting the possible reality of that culture at a specific time (Bruner, 1987). For instance, if some teachers never experience the contextual convention of monitoring of their work, it is likely not something they would include in a narrative of their work. Bruner (1991, p. 20) in this sense explained: “What creates a culture, surely, must be a “local” capacity for accruing stories of happenings of the past into some sort of diachronic structure that permits a continuity into the present”. Narratives being told, collected, collated and repeated shape a culture and set its tone and influence, affecting how people understand the present, the past and the future (Bruner, 1991; Polkinghorne, 1995). Even with our personal and homely accounts, narrative accrual converges towards a reality, a tradition or a culture—from the personal to the broader level (Bruner, 1991; Polkinghorne, 1995). This can be observed in families, institutions, countries or social networks accruing anecdotal narratives into traditions and in some instances, providing jurisprudence and precedents. This aspect of narratives is important in my research when teachers tell about their work inside the culture of their school or nation.

Personal narratives are entwined with those of others. For instance, the reality and world narratives of friends, colleagues, family, cultural group, religion and country directly influence the ways individuals narrate their reality. This is of particular interest for the research at hand, which looks at how teachers narrate their similar realities. Even global changes or phenomena such as the Enlightenment or the rise of the Internet (both of which are, to some extent, megaplots) have incidence on personal narratives (Bruner, 1991; Hinchman & Hinchman, 1997). Relating back to the morning routine described by Elbaz-Luwisch (2005), our social reality and narrative maintain that waking up early or brushing our teeth are things people should do, so people do it. This reality thus merges into personal narratives and contributes to the accrual of narratives, sustaining the social narrative of waking up early and brushing our teeth. Another entanglement of narratives and context can be observed when the accrual of narratives makes them, or the elements which compose them, mainstream. When cultural narrative components (such as language or concepts) become “mainstream”, those
components can in the end direct further actions, structuring and colouring individual experiences and the personal narratives of those experiences (Bruner, 1987). For instance, if a culture of distrust is present in a school and discussed profusely to the point that it becomes mainstream, teachers could then narrate or recall various experiences as accounts of distrust reflecting the mainstream, even if an external observer outside of that mainstream might attribute those same experiences to something other than distrust.

Societies uphold cultural elements and concepts woven into the thought processes of people, thereby providing “leading” tools for people to think and make sense of their reality in context (Bruner, 1986). One such tool is local knowledge of what is deemed good or bad, relevant or acceptable. Narrators (and audiences) exist among specific cultures which can dictate what is worthy of telling or not. For instance, more humble cultures of teachers could leave out how well their students perform if it is deemed irrelevant (Cortazzi, 2014). In a similar way, seemingly “shameful or bad events” within a particular context may not be reported by narrators. One’s local knowledge or common narratives teach what to say or not, what to aspire to or not, what is celebrated and what is forbidden (Spector-Mersel, 2010). The relevance of what is being narrated in relation to context sensitivity is also important in negotiations with the audience conveying a narrative. It is easier for parties to tell their version of a narrative and what is worth telling from their own perspectives, embedded in their cultural contexts, to someone who shares similar local knowledge.

One other cultural artefact, or tool provided by the cultural elements, which reveals its entanglement in narratives is language (Bruner, 1986, 1991; Swain et al., 2015). Frames of thought and one’s reality are impacted by elements embedded and represented in a language (Bruner, 1991). Languages are constructed by culture and contain elements which facilitate the formation of other concepts, thereby influencing the formation of those other concepts. By analogy, the mathematical language of algebra both facilitates and influences the formation of other concepts, such as equations or proofs. Languages therefore play a special role in facilitating and influencing the creation of other mental functions, and yet they are directly impacted and developed by the culture. Therefore, the mind, through language, is developed through the culture (Swain et al., 2015) and impacts how narratives are formed. The use of language in this research will be discussed in Chapter 6.

Personal narratives evolve in a way similar to that of the society to which they belong. As we all belong to culturally shared story frames lodged in our history, culture and language, our narratives are entangled and share many commonalities.
Similarly, teachers build narratives with the tools they share (concepts and language, story frames and relatability). Teachers’ narratives, even autobiographies, are thus culturally produced (László, 2008) and provide a direct window into their context. As personal narratives also provide a window into an individual’s mind, narratives convey individual meaning-making, which accrue collectively and contribute to the social narrative. This is echoed in individual narratives in a process reminiscent of the classic case of the chicken or the egg. Contrary to the staticity of the chicken or the egg conundrum, personal and social narratives are in constant flux, which renders studies about them varied and distinct in different contexts and different points in time.

4.1.2 The critical use of narrative research

While the benefits and importance of narrative research have been emphasised, it is crucial to remain critical with methodological choices. I have thus striven to implement criticality in my use of narrative research, highlighting that prudence is necessary in some respects despite my confident choice in this methodology.

The literature discusses narrative functioning as a literary genre, used to express human plights (Bruner, 1991; László, 2008). In that sense, this specific genre also comes with dialectic conventions which help and predispose the teller to convey and the audience to make sense of a narrative. A narrative is thus not “that original or unique”, as it does not strictly belong to the individual (László, 2008). In the same sense, Bruner (1991, p. 15) reported that for genres such as narratives, “while they may be representations of social ontology, they are also invitations to a particular style of epistemology”. As a result, it is important to remember that genres such as narratives inherently include plots, thus influencing both the way we think about and the way we see reality.

While I certainly adhere to the way literature discusses narratives functioning as a tool for people to make sense of and to construct reality (Connelly & Clandinin, 1990; Lieblich et al., 1998; Polkinhorne, 1995; Riessman, 2008), I challenge the idea that narratives are created during the course of one interview—that the narrator and the audience co-produce narratives which did not exist before this occurrence (Spector-Mersel, 2010). This idea appears to be the consequence of incremental morphing and canonical echoing of an idea originally explained by Connelly and Clandinin (1990), who claimed that some reality construction in narratives occurs during the course of a research project (involving many narrations). Referring back to Elbaz-Luwisch’s morning routine, perhaps a participant telling about drinking
coffee in an interview could understand that we drink coffee as part of a morning ritual which is hundreds of years old. However, the meaning-making of the morning routine is informed by this person’s lifetime of knowledge and narratives. Therefore, the meaning-making which takes place during one narration is likely minuscule. As such, I adhere to the view of Lieblich and colleagues (1998), who argued that narratives told once mainly represent one’s life and reality to the audience, where the audience is more of a spectator, instead of with a co-producing audience. If narratives are conveyed for an audience, then the audience, arguably, has a notable influence on what is being told. That said, while details of the narrative can be clarified or taken out, for whatever reason, and while the ways these details are expressed may differ in narratives told as performances (Brockmeier & Carbaugh, 2001), the meaning of the experience narrated does not necessarily change for the narrator with respect to the audience.

I am not arguing against the idea that narratives and reality are constructed in exchanges over time, with others having influence on them; rather, I am arguing that notable meaning-making is negotiated over the course of one’s life in narrating, re-narrating and hearing others narrate (Denzin, 1995; Elbaz-Luwisch 2005, Riessman, 2008). Once an experience has gained meaning in a story line established in someone’s mind, such as explaining one’s morning routine experience, one narration is not likely to be constructed from scratch during an interview, regardless of context, audience or sensitivity to relevance. The overall meaning narrators give to their experience has already been constructed over time and therefore was mostly formed prior to the interview narration (Brockmeier & Carbaugh, 2001).

During this research, I strove to keep at the forefront the fact that narratives do not represent life as lived by the individual, but life as told (Bruner, 1987). The narratives and the analyses thereof included in my research therefore do not aim at objectivity or “historical truth” (Riessman, 2008). Rather, the study of narratives informs individual perceptions. It takes into consideration that narratives are tightly entwined with history and society, closely related to the context wherein the teller of and the listener to the narratives reside (Hunter, 2010). A narrative contains “narrative truths” (Lieblich et al., 1998) intended to represent the teller’s reality and to convey its meaning in a relatable manner (László, 2008). The nature of narrative truths partially represents—but is not the same as—historical truth (Bruner, 1991; Hunter, 2010; Lieblich et al., 1998; Riessman, 2008, Spector-Mersel, 2010). “Narratives, then, are a version of reality whose acceptability is governed by convention and “narrative necessity” rather than by empirical verification and
logical requiredness” (Bruner, 1991, p. 4). If the audience can relate to a narrative and find it compelling, and if the narrative communicates the teller’s perception and reality, the teller has done well within the truth framework of narratives.

Narratives are windows into tellers’ perceptions of reality and truth at a specific moment, in a specific context, at a specific time. Researchers examining narratives are thus not in direct contact with participants’ experiences, but rather with their reconstruction of their experience through narratives (Denzin, 1995; Elbaz-Luwisch, 2005). Researchers reporting about narratives, in this sense, do not hold a “truer” or more accurate view, because they also convey and report their own perceptions of narratives and reality (Spector-Mersel, 2010). Researchers can only report participants’ narratives of their experiences, presenting a partial reality snapshot in time (Moen, 2006; see also Ricoeur, 1981).

4.2 Methods

This research is empirical and based on narrative data collected during a total of 27 interviews with upper-secondary school mathematics teachers. In order to gather participants and information-rich cases, purposeful sampling (Patton, 1990) or selection was used to ensure depth of understanding rather than breadth of understanding and generalisation. The selection strategies used to recruit participants for the two data collections were snowball way of selecting (Mishler, 1986; Noy, 2008; Patton, 1990) and criterion selection (Patton, 1990). Using snowball selecting, also known as chain sampling (Noy, 2008; Patton, 1990), I asked individuals who were likely to know teachers who would provide rich accounts. Those individuals asked others, who in turn asked people they knew, increasing the scope of the collection with each iteration. I thus began my data collection processes by asking professors, colleagues and other education actors either to participate directly or to provide me with the contact information of potential participants. I also asked participants for the contact information of other participants whom they knew were qualified and likely to be interested. While the snowball method offered many advantages which suited my research, I also was aware that it can sometimes yield too broad or unfocused teacher selection. This is why I combined it with the criterion method (Patton, 1990), which uses certain criteria in selecting information-rich participants for interviews. For instance, all my participants had to have significant experience teaching upper-secondary school mathematics and had to have been teaching for at least eight years. This length of time was chosen first because at this stage teachers have exited the novice stage.
and have entered, or are about to enter, the expert stage of their teaching career (Wolff, van den Bogert, Jarodzka & Boshuizen, 2015) and second because it allows enough experience to reflect on the changes which have occurred during their teaching career. Teachers participating in this research were first contacted through emails, or sometimes in person. Some of them knew me first-hand, others were referred to me by someone they knew.

After setting an interview time and location, each teacher was sent documents via email about a week before their interview. One of the documents was an explanation of the nature of the interview and an informed consent for them to sign (see Appendix 1). The second document was a graph the teachers were requested to complete prior to their interview (see Appendix 2). Participants had to represent in this graph their level of self-confidence in their work as a function of the number of years they had been teaching. This graph was intended to prompt the teachers to think about their teaching career before the interview, and it allowed access to deeper levels of experiences which may not have come up otherwise (e.g., storylines; see Beijaard, 1995). The next step was to meet each of the participants one-on-one for their interview, all of which were recorded with their consent (audio only) and kept confidential. From that point on, all participants were attributed pseudonyms to ensure that their anonymity would be preserved throughout the research.

The choice of interview only was purposeful and made in relation to the ontologies and epistemologies previously discussed. What I wanted to encapsulate in this research is the teachers’ understanding and perceptions of their experiences at a specific time. I was not interested in assessing the “truth” of their narratives, nor the meaning they made out of the observations I made. I wanted a window in the reality and meaning-making of the participants in the most spontaneous (unfiltered or uncensored) manner possible. Every teacher was interviewed once.

Narrative research relies upon knowledge and data collection obtained through discussions and life narratives, where the voice of the teller is valued, along with what they choose to share, or feel is relevant (Spector-Mersel, 2010). As such, while interviewing the participants, I acted much more as a listener than a conversational partner. To prompt the most significant narratives encompassing the experiences and perceptions of teachers (Polkinghorne, 1995), I conducted narrative interviews with teachers in a manner which was more open than semi-structured. The teachers told their narratives, and while their narrative lines followed themes I asked about (see Appendix 3), each of the interviews were different, as teachers were not an explicitly asked to answer a series of interview questions. All interviews included
open and non-directional questions such as: *Tell about your best experience as a teacher?* and *Tell me why or how you became a mathematics teacher?* The latter was specifically meant to prompt a narrative in a temporal account (Mishler, 1986; Spector-Mersel 2010). Once the open questions were answered, all teachers were asked to describe the graph they filled. This questioning elicited rich accounts of the teachers’ career’s narratives; they explained the high and low points of their careers, following the timeline of their graphs. Additional follow-up questions were designed to elicit more narratives from the participants and to encourage them to tell more about topics they had raised themselves, if this was deemed necessary. For example, questions such as “describe a difficult experience you encountered as a teacher” proved to be efficient prompts to elicit further narratives (Cortazzi, 2014). Different themes were addressed in this way (see Appendix 3), such as good teaching definition, pressures felt on the job or relationships with different actors in their work.

### 4.2.1 Research participants

In this research, 27 upper-secondary school mathematics teachers were first selected to participate in the interview (12 Finnish and 15 Canadian teachers). All Canadian teachers taught in French in public schools except for two, who worked in private schools. Some teachers worked in specialty schools (one focused on sports, one on arts, two focused on high-level academics and one Catholic school). The rest of them worked in regular public schools and study programmes. Of those 15 Canadian teachers, seven had spent their teaching careers in metropolitan areas, where the others had spent their career in regional areas, in cities of 80,000 people or fewer. About half of the Canadian participants taught in schools of more than 1,000 students (with four teaching in schools of more than 1,500 students). The Finnish participants all taught in public schools. Some Finnish upper-secondary schools offer International Baccalaureate (IB) programmes along with the regular national one: Students enrolling in the IB programme are usually academically inclined and have their courses taught mainly in English. Of the 12 Finnish participants in this research, two were mainly IB teachers, five were teaching only some of their courses in IB, and the other five were not IB teachers but taught only the regular national programme in Finnish. It is difficult to assert whether the IB teachers were more at ease in speaking English during their interview. All the teachers involved in IB had good English skills, but other teachers also had good English. Only one Finnish participant struggled to communicate in English.
although he still enthusiastically answered questions and was able to get his message across. All Finnish participants taught in regional areas: six of them taught in cities of about 200,000 people, while the rest of them taught in cities of 60,000 people or fewer. All of these teachers taught in schools of fewer than 750 students. Examining these demographics, five teachers from each country mainly taught in special programmes, while the rest did not. About half of the participants in each country taught in somewhat rural settings, but many Canadian teachers taught in larger schools than their Finnish counterparts. Nevertheless, this composition of participants represented a wide range and comparable selection of teachers in each country as well as a balance of gender.

Of the 27 teachers interviewed in total, one Canadian teacher was later selected for narrative analysis in Article I. For Article II, four Canadian and four Finnish teachers were selected for analysis of narratives, and the same was done for Article III. The interviews of two Canadian and two Finnish teachers (Dominic, Simone, Tuomas and Pirkko) were studied in both Articles II and III. In the following sub-chapters I will therefore describe in greater detail the participants and their selection for each analysis and article. I will describe chronologically the processes related to the two main data collections and the three related data analyses which led to the three articles upon which this dissertation is based.

### 4.2.2 First data collection and analysis

The first data collection took place in the Canadian province of Quebec in early 2014. Four Canadian upper-secondary school mathematics teachers were selected for interviews, as described above. One male and one female participant were senior mathematics teachers with more than 20 years of experience. The two other teachers were female mathematics teachers who each had 10 years of experience. Participants were interviewed for about one hour, in French, at their home or in a coffee shop.

Once the interview data was acquired, I listened the audio of the four interviews, translated and transcribed them. After reading the transcripts several times, I decided to conduct a further participant selection. For Article I, a single teacher, Nora, was selected from the four initially interviewed. Nora had over 20 years of experience teaching mathematics and I had first met her when I was studying to be a teacher. Nora was chosen using the critical case selection method (Patton, 1990), wherein I purposefully selected a case which conveyed an experience in the most dramatic way: “A clue to the existence of a critical case is a statement to the effect
that “if it happens there, it will happen anywhere” or vice versa, “if it doesn’t happen there, it won’t happen anywhere” (Patton, 1990, p. 236). I selected Nora’s narrative because it was rather dramatic, compelling and unique. This experienced teacher had a good reputation, extensive experience and was in good surroundings. Despite all this, the implementation of the provincial reform of early 2000s impacted her significantly. Based on the idea of the critical case, if those impacts affected her, they could affect anyone.

I could have used the narrative data in several ways. Spector-Mersel (2010) mentioned that narratives should be studied holistically to benefit from all their potential meanings: in the interdisciplinary factors they address (emotion, cognition, gender), in their form and content, and with close attention to the contexts. While I certainly concur that a study of all the above adds depth, over a given period of time it can also reduce the number of accounts one can study. I thus made a conscious decision to examine the content of the texts collected for my research rather than their form. Because of the different languages present in and translations of the data, I decided to avoid the specifics of languages and to focus instead on the meaning of the content and my analysis of it. This allowed me to basically choose between two types of narrative material processing based on Bruner’s distinction of means of cognition (Lieblich et al., 1998; Polkinghorne, 1995). One type is narrative analysis (based on Bruner’s narrative cognition) and the other is analysis of narratives (based on Bruner’s paradigmatic cognition). The narrative analysis is the study of units of meaning synthesised together, and the analysis produces stories (emplotment). On the other hand, the analysis of narrative produces paradigmatic typologies or categories (Lieblich et al., 1998; Polkinghorne, 1995; Rosenthal & Fischer-Rosenthal, 2004).

Nora’s case was presented as an emplotted story in Article I and the data from her interview was analysed in a holistic way using narrative analysis (Lieblich et al., 1998; Polkinghorne, 1995; see also Lutovac & Kaasila, 2010). Because the research questions pertained to perceptions of autonomy and self-confidence in the midst of the educational reform, I emplotted Nora’s narrative by organising the segments of it in chronological order, depicting a narrative of autonomy and self-confidence over time (Polkinghorne, 1995). The emplotment of Nora’s narrative was facilitated both by the graph she drew before her interview (see Appendix 4), which highlighted changing points in her self-confidence over time, and by her explanation of the reasons for each of the parts of her graph. To emplot Nora’s narrative, segments of her raw interview data pertaining to key themes in the research question, such as autonomy, self-confidence and reform were first selected
and inductively coded. This is exemplified below, with segments of raw data which were selected according to their relevance to specific themes underlined in different styles.

Because before, the other admin team that was there, I will write this down here [on graph], the other admin team that was there did not really apply the reform. We were not really obligated [to apply it or to change anything]. And then when the admin team that we currently have arrived, ... then they were crazy about the reform. Then everybody had to apply it, and it was meetings and all that. And if you did not believe in it [the reform], if you weren’t really doing it, then all of a sudden you were no longer a good teacher anymore, you know. So then, it is then I started to doubt even my own teaching ways/practices, so I remained there for a good while [on a low self-confidence streak on the graph]. Then I would tell you, listen it came back pretty much there [same level], this year I would say: So, then I put this for later?! [talking to herself] No. Maybe not this year, maybe last year I would say. So why it started to go back up [on the graph] it’s because [changes to] the reform. You know before [the changes to the reform], we weren’t allowed to [record] grades at all, we had to look into the learnings of the student, competencies in general, hey you never should have been talking about averages! You would have been. I tell you it was really, we had to hide to discuss if we made a class average, you should never talk about it. So then it [grades or averages] came back, we are allowed now to make class averages so now it’s good, now it came back up [graph]. And it’s stable. There are some times, some times I’d tell you it goes down, this has more to do with difficult students, often it goes down because I get students that are increasingly difficult ...

Secondly, selected segments of data were arranged chronologically in order to provide an explanation for what the reform meant to Nora. Below is an example of a few different segments of Nora’s narrative pertaining to theme of autonomy in the application of the reform which have been arranged chronologically.

Before the reform, we were more autonomous. ... before we could evaluate more freely with exams and it was better. ... before the reform, there were not so many changes happening, and the implementation was not as drastic. ... before, listen we could do our job, we did our teaching hours ...

[During the reform], we weren’t allowed to [record] grades at all. ... hey, you never should have been talking about averages ...
Finally, taking into consideration Nora’s broader context, her emplotted narrative was interpreted holistically. For instance, Nora expressed that her self-confidence before and after the reform was strong, but it decreased during the implementation of the reform. Holistically, this can indicate that an event in her specific context impaired her “primary state” of strong self-confidence. Moreover, from the conceptual frame describing self-confidence as a criterion for autonomy, it was theoretically sound to conclude a diminished sense of autonomy paired with Nora’s diminished self-confidence. This was echoed by Nora herself when she explained that her self-confidence decreased with her autonomy. The emplotment revealed the changes in her perceptions of self-confidence and autonomy over time.

4.2.3 Second data collection and analysis

The second data collection took place in two phases, in two general locations: all over Finland during the spring 2015, and all over the Canadian province of Quebec during the summer of 2015. According to the snowball and criterion selection described earlier, 12 Finnish teachers and 11 Canadian teachers were selected for interviews, all being upper-secondary school mathematics teachers with eight or more years of experience. Seven male and five female Finnish teachers were interviewed. In Canada, six female and five male teachers interviewed, each of whom had over 10 years of experience. All 23 participants were provided with the same pre-interview documents as in the first data collection, a week prior to their interview. Thus, participants were informed in the same way and also had to fill in a life-story graph before their one-on-one narrative interviews. Each of the 12 Finnish teachers were interviewed once, in English; most of the interviews were conducted in the school where they work, but one interview was conducted via Skype. Each interview lasted between 40 to 90 minutes. Each of the Canadian participants were interviewed once, face-to-face in French, either at the participant’s home or in a restaurant or coffee shop. Their interviews lasted roughly from 60 to 180 minutes. Once the data from all narrative interviews was acquired, I listened to the audio of all interviews, translated the French ones early on to enable compare the vocabularies between all participants, and transcribed all the interviews.

The timing of this second data collection was important in explaining the situationality of the interviews. Finland was about to implement a key curriculum reform and Canadian teachers were also undergoing many changes in relation to their working conditions (acute monitoring of their schedule and work had recently
been implemented). Interviewing participants the moment before those important changes occurred was intentional in order to gauge their levels of confidence, comfort or apprehension in the face of significant changes bound to happen in their work.

The analysis of narratives (Polkinghorne, 1995) was conducted for all the interview data. I focused on categorical-content analysis, which is often used when a phenomenon is experienced by groups of people. This data analysis process is generally used to study the explicit content of accounts, or the implicit content with a stronger focus on the meaning of the accounts (Lieblich et al., 1998). This technique allows a relatively large amount of data to be analysed (Rosenthal & Fischer-Rosenthal, 2004), which was helpful, given that I interviewed 23 teachers for this analysis. The results of these analyses lay in the descriptions of themes present in all interviews, using a reasoning close to the paradigmatic one (Polkinghorne, 1995). All the transcribed data of the second data collection was imported into NVivo qualitative data management software. I then repeatedly read the entire text to get a good sense of its general content. All of the smaller units of content relevant to the general overall topic of becoming or being a teacher were preliminarily identified and pulled together to form a subtext to be studied (Lieblich et al., 1998). This was done to narrow the amount of raw data and to focus on experiences of teachers related to the main research questions. As such, from over 342 pages of initial transcripts of all the interviews, about 200 pages of subtext comprised accounts related in some way to participants discussing becoming or being a teacher. This subtext is sometimes called the content universe of the research (Lieblich et al., 1998). The content of this subtext was then organised.

Categories and themes can be predetermined according to theory, for example, or can emerge from the subtext (Lieblich et al., 1998). Considering the ontological and epistemological views offered by narrative research, I preferred approaching the data as openly as possible while reading the subtext, and let the various themes and categories emerge from the subtext. My coding strategy was therefore inductive. In practice, while reading the subtext repeatedly, words, sections and whole sentences were systematically dissected and labelled (coded). Then, following Lieblich and colleagues (1998), related or similarly coded utterances were grouped together into themes according to their meaning, such as Autonomy, Relationships with parents, etc. (see Appendix 5). For example, utterances such as “teachers are told more and more what to do” were coded as “Constraints on Autonomy”. The content of this code was then grouped together with the content of other thematically related codes to form the theme Pressures. At this stage, I
returned often to the French audio version of the interview to ensure that the meanings kept their integrity. The thematic grouping process is circular and time-consuming because it involves sorting, suggestions of grouping, additional groupings, regrouping, refining and starting over, as careful repeated readings of the subtext further informs this grouping at every reading (Lieblich et al., 1998). In my research, this process of systematically grouping and organising the subtext led to a total of 28 themes composed of units of meaning (see Appendix 5). As every part of the subtext was examined over and again, it is fair to assume that very little meaningful content was left out of this organising process. Some themes varied subtly among themselves and some units of meaning conveyed more than one theme. This, however, allowed me to “retain the richness and variation of the text” (Lieblich et al., 1998, p. 113). It is important to highlight that as the meaning given to narratives by participants are embedded in their contexts, so is their thematic organisation, because they are also impacted by background knowledge and the use of language (Mishler, 1986). In the analysis process, the themes are themselves organised in categories; once categories are formed, they can be subdivided, combined or contrasted. Categories can also be used as such to draw conclusions about their content, classification or their variation (Lieblich et al., 1998).

For Article II, selected themes formed one overarching category, among which patterns emerged. After obtaining the 28 initial themes from the content of the second data collection, I first identified 17 themes, including Autonomy over time, Definition of autonomy and Work satisfaction, which pertained directly to the “Perceptions of teacher autonomy”, and thus forming a category. Second, those selected themes and their content were examined more closely. Patterns emerged from the 17 themes as their content were read over and again. This is illustrated in Figure 1, which displays a part of the content of three of the 17 themes. Third, those patterns were identified and are exemplified in Figure 1: areas of teachers’ work in which they felt most and least autonomous (in bold), how stable teachers felt their autonomy at work was (double underlined), and how satisfied teachers were with the autonomy they have (wave underlined). Utterances from different themes can at times represent more than one pattern. Excerpts specifically related to a pattern were highlighted and collated and were used to determine how the teachers perceived their autonomy overall.
As a fourth step of analysis, while all 23 accounts were interesting and helpful in the overall understanding of the teachers’ situations, I decided to conduct a further participant selection to reduce the participants to a manageable number for the elaboration of Article II. Thereby, four Canadian and four Finnish teachers were selected according to critical case selection and intensity selection (Patton, 1990). The latter aimed to collect information-rich cases which would represent well the topic at hand—teachers and their autonomy. Intensity selection allowed me to select teachers who had sufficiently intense or specific views (Patton, 1990) on teaching and teacher autonomy to best represent the phenomenon. This additional selection process was accompanied by other factors. The participants were required to have at least eight years of experience, and I realised during the interview that two of the Finnish teachers had only four or five years of experience. These less experienced Finnish teachers were therefore not selected for the articles, in order to keep a uniform extensive experience with similar abilities to reflect on the past. Moreover, two Canadian teachers were found to have gained most of their...
experience in private schools, so they were also not chosen for the articles; I kept only public school teachers’ accounts to relate more evenly to the Finnish teachers, who had all worked in public schools.

For Article II, Dominic, Pierre, Lise and Simone were the two male and two female teachers selected from the Canadian participants, all of whom had 19 or more years of experience. Heikki, Tuomas, Miia and Pirkko were the two male and two female teachers selected from the Finnish participants, all of whom had eight years or more of experience. These teachers’ accounts were also chosen because they were considered to be representative of the whole data set content-wise, according to Patton’s (1990) intensity selection, providing excellent and rich example accounts of how teachers perceive their autonomy while not being unusual. These eight teachers’ accounts were also the most explicit and comprehensive, and displayed the greatest variation when Canadian and Finnish teachers were compared. Their accounts were examined closely in light of the predominant themes represented in Figure 1 and interpreted according to their context and the theoretical basis established in Article II. Contrasting such accounts in terms of their context and theoretical basis allowed for the discussions and conclusions presented in Article II.

For Article III, the same initial data from the 23 participants of the second data collection was used. Specific themes were selected from the initial 28 themes yielded from the second data collection and all its participants. As I was interested in the intersection of autonomy, relationships and trust, I formed three categories corresponding to these themes from the interview data. The category of Autonomy was formed by grouping the themes Areas of autonomy (worst), Areas of autonomy (best), Autonomy granted by others, Autonomy over time and Definition of autonomy (see Appendix 5). The category of Relationships was formed by grouping the themes Relationship with colleagues, Relationship with parents and Relationship with principal (see Appendix 5). Trust comprised only one theme (Trust) but for consistency I will call it a category. I examined the content of the three categories, Autonomy, Relationships and Trust, to identify utterances which addressed in themselves all three categories. This intersection of content is exemplified in Figure 2, with participants discussing in the same utterance autonomy (marked in bold), relationships (double underlined) and trust (italics). I observed that the description of this intersection was best captured in the following sub-categories: Trust in relationships with colleagues, Trust in relationships with principals, Trust in relationship with parents, and Trust and relationships in wider educational and cultural contexts. While students were at times mentioned during
the interviews, they were not really a source of autonomy improvement or impairment and therefore did not yield significant findings in that regard.

Fig. 2. Data analysis for Article III.

In order to keep a manageable number of participants for Article III, cases were again selected using critical case and intensity selection (Patton, 1990). The Finnish teachers who lacked eight years of experience and the Canadian ones who evolved in private schools were again discarded. Maintaining the balanced number of men and women in Article III, I studied more closely Matias, Pirkko, Saara and Tuomas, the Finnish teachers with at least eight years of experience, and Dominic, Ian, Juliette and Simone, the Canadian teachers with at least 10 years of experience. These eight teachers’ accounts were also chosen because they were the most explicit and comprehensive, and also because the content of their interviews was
deemed representative of the data set, in a similar way as was explained above for the intensity sampling (Patton, 1990) conducted for Article II. These cases best exemplified how trust is articulated in relationships in different contexts. This process yielded the extraction of particularly illustrative data excerpts and their interpretation. Contrasting accounts similar to the ones for Figure 2 in terms of their context and using a theoretical basis allowed for the discussions and conclusions presented in Article III.

4.2.4 *Categorising the articles’ findings to yield the dissertation’s findings*

My understanding of teacher autonomy has evolved over the course of this research. In the beginning, my understanding of teacher autonomy was individualistic due to the influence of the mainstream idea implicit in the accrual of narratives from my colleagues (Bruner, 1986, 1987)—that teacher autonomy means freedom from control. Later, my individualistic understanding of teacher autonomy was further individualised, influenced by traditional literature about autonomy in education and teacher autonomy (Benson, 2000; Friedman, 1999; Gwaltney, 2012; McGrath, 2000; Pearson & Hall, 1993). Then, reading about autonomy outside of educational literature (Goering, 2009; MacDonald, 2002a, 2002b; Mackenzie & Stoljar, 2000; Twomey, 2015), I came to understand that teacher autonomy is all about relationships. The evolution of my understanding of teacher autonomy is reflected in the articles, from Article I, which is rather individual and practical, to Article III, which is relational and more conceptual.

In writing this dissertation, I used my new relational understanding of teacher autonomy in revisiting the articles, their findings and the data which informed them. I was then able to interpret those findings and data based on this new understanding. This broader level of categorical content-analysis (Lieblich et al., 1998; Polkinghorne, 1995; Rosenthal & Fischer-Rosenthal, 2004) allowed me to extract and list the articles’ main findings and thematically group them. I organised and categorised those findings according to my current understanding of teacher autonomy and a more conceptual approach to the findings taking some distance from the particular examples. Once this organisation was performed, I returned to the participant data which informed the articles’ findings to ensure that this new organisation corresponded to the participants’ holistic narratives. This organisation is illustrated in Figure 3 below, where the findings from the articles are thematically grouped and categorised to yield the findings of this dissertation. The findings of
this dissertation are the culmination of the evolution of my understanding of the teachers’ perceptions of autonomy, and this evolution can be seen as a narrative in itself.
Fig. 3. Analysis yielding the findings of the dissertation.
With a perspective framed by the dichotomy between individual and relational autonomy, it was easier to see that the teachers interviewed for this research perceive autonomy in individuality, but that they also perceive teacher autonomy differently (Dissertation Finding 1); according to their context (Dissertation Finding 3); and in terms of the relationships between those contexts (Dissertation Finding 2). These dissertation findings yielded Dissertation Finding 4, that a new conceptualisation of teacher autonomy is needed. Furthermore, a relational understanding of teacher autonomy made it easier to interpret the reactions to controls associated with an individualistic understanding of autonomy. This yielded Dissertation Finding 5; that more effective and sustainable changes to teachers’ perceived autonomy should come from teachers themselves, being proactive in initiating change. This broader categorisation allowed me not only to answer the question of how do upper-secondary school mathematics teachers in different contexts perceive their autonomy, but to expand on the scope of this original research question, which also allowed me to meet my initial aim of empowering teachers. The next chapter will describe in more detail the five dissertation findings described above.
5 Discussing the inherent relationality of teacher autonomy

This chapter is structured as five sub-chapters, according to the findings which emerged from combining the findings of Articles I, II and III, from how different teachers perceive autonomy in different ways to some of the possible implications related to a reconceptualisation of teacher autonomy.

5.1 Different teachers perceive autonomy in different ways

The teachers interviewed for this research seemed to perceive autonomy in the same individualistic terms as those presented in the literature (Cakir & Baciliani, 2012; Shaw, 2008). As such, both the Canadian and Finnish participants described their most autonomous actions inside their classrooms, in areas of individual classroom operations (Strong & Yoshida, 2014). In this sense, if teacher autonomy was confined only within the limits of the classroom, those teachers would all perceive rather high levels of autonomy, but this is not the case.

Finnish teachers do not report perceiving to be controlled, even if they could elaborate on constricting factors such as time or a full curriculum (see Articles II and III). Those teachers explicitly mentioned that everything which happens inside the classroom is the teachers’ prerogative, as teachers emphasise their free individual work in the classroom (see Article II). Finnish participants associated the concept of autonomy with trust, and reported having an overall high and consistent sense of autonomy in their work. The Finnish participants did not explicitly report feeling limited or subjected, insecure, powerless or overly conflicted in their job (Deci & Ryan, 1985; Ryan & Deci, 2000), and consequently did not seem to be reactive to controls on their work. Additionally, the Finnish teachers interviewed seemed to comply with constricting factors of their work (Chirkov et al., 2003; Deci & Ryan, 1985; Ryan & Deci, 2000), such as having a clear mandate to fulfil regarding curricula and high-stakes examinations. While Finnish teachers reported being bothered by that preventing them from developing new teaching material and methods, they seemed rather resilient in accepting the curriculum structure and content as a part of their job. It almost seemed as though their loyalty to the curriculum made them accept it despite their disapproval of some of its aspects (Erss, 2015). With this level of endorsement, Finnish participants’ perception of autonomy persists, and the consequences of limitations on autonomy are kept to a minimum (Chirkov et al., 2003; Deci & Ryan, 1985;
Therefore, the Finnish teachers in this research did not relate their autonomy to control and perceived it to be extensive and consistent. This perception was starkly different from that of their Canadian counterparts.

The Canadian teachers of this research reported feeling undue interference from external parties in many respects. Teachers explained that when principals micro-manage teachers’ time, work and evaluations methods, for example, the feeling that they are being controlled directly diminishes their sense of autonomy. Additionally, the extra work, tasks and methods imposed on teachers, along with various punishments, reportedly impairs Canadian teachers’ sense of autonomy (see Articles I, II and III). Canadian teachers described their diminishing autonomy in relation to being increasingly monitored and held accountable (see Article II). Perceiving those controls impairs certain elements of autonomy (Deci & Ryan, 1985; Ryan & Deci, 2000). The Canadian teachers of this research perceived the limitations on their autonomy to be important and their autonomy to be decreasing over time. Those teachers did not seem to comply with or endorse many of the factors which constrained their work, such as acute monitoring and imposed high-stakes examinations. The Canadian participants described their perception of latitude and freedom from control and demands to be diminishing along with their perception of autonomy (Pelletier & Sharp, 2009; Prichard & Moore, 2016, Strong & Yoshida, 2014).

It is important to have a comprehensive conceptualisation of teacher autonomy which works for most teachers. Indeed, a teacher’s understanding of autonomy can direct their reactions to the different states of autonomy. For example, if major controls were imposed on teachers who understand autonomy as freedom from control (as the Canadian participants did), those teachers could become more tense (Pearson & Moomaw, 2005) and controlling of their students (Pelletier & Sharp, 2009) because they feel their autonomy is reduced. In this sense, constraints on those teachers may induce a perception of loss of control and of feeling of professionalism (Perryman et al., 2011). Furthermore, if teachers held an individualistic understanding of autonomy, and depending on their level of compliance, they could settle for the autonomy they have. The Finnish teachers interviewed for this research can exemplify this: They expressed concerns regarding curricular constraints which led them to teach to the test but, as they did not perceive that they were controlled within their individual classroom, they were satisfied with their autonomy and did not intend to take action to improve something which was bothering them. If they understood autonomy more like their Canadian counterparts, who did not feel that autonomy is a default attribute of the
teaching profession or is not limited to the classroom, their reaction to curricular control may have been different. Generally, teachers could become reactive to controls if they are present, such as Nora for example, who isolated herself in her classroom to avoid control and feel autonomous (see Article I). Therefore, I argue that teachers should be presented with alternative understandings of autonomy which go beyond mere freedom from control inside the classroom. The following sub-chapters will suggest avenues for reconsidering the conceptualising of teacher autonomy.

5.2 Teacher autonomy at the crossroad of relationships, trust and self-confidence

Teacher autonomy is inherently relational (see Articles I, II and III) because relationships at work are fundamental for teachers, their sense of autonomy, and their self-confidence. Teachers’ self-confidence is directly affected by their relationships at work (see Article I), which has been confirmed in previous studies (Kelchtermans, 1996; Tett & Maclachlan, 2007). Because impaired self-confidence can impair autonomy (Govier, 1993; Spratt et al., 2002) and vice-versa (see Article I), it is important to pay attention to the delicate entanglement of the two concepts. If teachers perceive negative relationships or a decreasing autonomy, or if they have low self-confidence, this can be symptomatic of their working conditions and, more importantly, symptomatic of what they are willing to do to be—or feel—autonomous.

Trust plays a central role in the relationships teachers have at work and is fundamental in assessing these relationships. Participants from both contexts did not explicitly discuss students in relation to trust or autonomy; they mentioned relationships with principals, colleagues and parents instead. Focusing on those specific relationships, teachers who described them as positive overall were also more likely to feel trusted. For instance, the Finnish participants reporting on positive relationships with principals also reported feeling trusted by the principals (see Articles II and III). The trust manifested in relationships with principals, colleagues and parents enhances teachers’ sense of autonomy. This finding was very different from that among the Canadian participants, who reported difficult relationships with other school actors. Distrust is manifested in relationships with principals, colleagues and parents, directly impairing the Canadian teachers’ sense of autonomy (see Articles II and III).
The meaning of trust in teachers’ relationships stretches beyond the local school context to the broader educational and cultural context. When teachers narrate about negative relationships and the sense that their qualifications and competencies are doubted, they also indicate that this affects the status or prestige of their profession, and in turn contributes to a feeling of lack of trust (see Article III). For instance, Canadian participants mentioned that they increasingly have to report to parents, who increasingly think teachers are incompetent (see Article III). This explains in part the parents’ urge to control teachers, diminishing their sense of autonomy. Conversely, the Finnish teachers did not explicitly report feeling distrusted by parents. Parents in Finland do not usually intervene with upper-secondary school teachers’ work. Finnish participants explained that this could be a result of the prestigious status of Finnish teachers and the recognition of the responsibility entailed in their work. In this sense, teachers also base the assessment of their relationships at work on the trust they perceive their profession has on a more general level.

A sense of trust is important for teachers in order to feel autonomous (Pearson & Moomaw, 2005). Participants alluded to and even explicitly highlighted the correlation between trusting relationships and autonomy. Teachers who enjoy trusting relationships at work reported feeling that they can work freely and independently, whereas teachers who do not enjoy trusting relationships reported feeling controlled and held accountable. This indicates that teacher autonomy is determined by relationships, which are principally established upon trust. Teacher autonomy in this sense is not individualistic but relational. This conclusion further emphasises the need to reconsider the traditional conceptualisation of teacher autonomy, which lacks the emphasis on teachers’ relationships at work.

5.3 **Contexts are central to teacher autonomy**

Teacher autonomy is undeniably contextual, and this will be addressed here in two parts: the influences of structural and cultural contexts on teacher autonomy. While these two contexts may overlap, the structural context emphasises how the education system is organised while the cultural context emphasises the relationships between people and the discourses in the context of each country.

The teachers interviewed for this research tell about the structural context of their work and addressed different elements of the school organisations’ structure, such as reforms, curricula and high-stakes examinations. Both the Canadian and Finnish teachers reported having little school-wide autonomy and expressed
concerns regarding the related elements (see Article II). Those elements are usually created and coordinated by others outside the classrooms; teachers thus rarely have a lot of influence on structural elements. Structural constraints on teachers’ work can also be seen in the topic they teach. High-stakes examinations in upper-secondary school mathematics affect teacher autonomy and mathematics teaching (Meng & Liu, 2009; Pelletier & Sharp 2009; Perryman et al., 2011; Prichard and Moore 2016). The Canadian and Finnish teachers alike were especially concerned with the stress occasioned by charged mathematics curricula they have to cover to prepare students for these high-stakes examinations. Much has been reported on how high-stakes tests overshadow teachers’ work (Au, 2011; Benson, 2010; Erss et al., 2016; Pelletier et al., 2002; Pelletier & Sharp 2009; Perryman et al., 2011; Prichard & Moore 2016). While this concern was echoed by the Canadian and even the Finnish teachers interviewed, it does not automatically translate to a diminished sense of autonomy. The Finnish participants reported feeling overall highly autonomous, despite also telling about being troubled by the limiting structural context of having to teach in a rush to cover all the prescribed objectives (Webb & Vulliamy, 1999) and having to teach tricks to push students to achieve better scores, in order to enhance their opportunities to attend university (Webb & Vulliamy, 1999). While the Canadian participants could also describe the structure of their school organisation as being rigid, they, on the other hand, saw this as impinging on their sense of autonomy (see Article II). While Canadian teachers do have some discretion with respect to what they do in their classrooms (Gwaltney, 2012), those interviewed for this research reported perceiving the systemic external constraints imposed by the school administration as being very important.

Teachers’ perceptions of autonomy are embedded in their cultural context. Canadian teachers therefore carry the weight of their own cultural story of accountability and distrust (Tardif, 2013). It is clear that the accountability perceived by these teachers induces a feeling of lack of control or professionalism (Perryman et al., 2011), undermining their sense of autonomy (Pelletier & Sharp, 2009; Prichard & Moore, 2016). Indeed, the Canadian participants reported a diminishment of their autonomy over the years because of increased accountability. They explained that they found it difficult to see their autonomy consistently reduced, eroding their job satisfaction and making them long for retirement. This confirms previous studies which have correlated low autonomy perception with low job satisfaction, and identified this as a reason for teachers to leave the profession (Pearson & Hall, 1993; Pearson & Moomaw, 2005). Finnish participants do not report this sense of dismay with regard to their everyday teaching.
Arguably, autonomy is part of the cultural story of Finnish teachers, as it is an inherent part of the education history of Finland (Erss et al., 2016; Niemi, 2012; Sahlberg, 2011). Autonomy for Finnish teachers of this research is stable, self-evident and indisputable; it is a core part of the description of the teaching profession in Finland. Despite their constrained school-wide autonomy and the weight of high-stakes examinations, Finnish teachers of this research report feeling fully satisfied and autonomous, even claiming they never lacked autonomy. As teachers in Finland are trusted professionals and enjoy the freedom to conduct their work as they think best (Sahlberg, 2011; Simola, 2005; Tirri, 2014), it appears that as soon as one becomes a teacher, there is merely nothing can undermine how autonomous one feels. This implies that, regardless of monitoring and compliance, the way teacher autonomy is perceived in one context appears to be considerably more significant to teachers’ sense of autonomy than other benefits or hindrances affecting their autonomy at work. The differences in autonomy perceptions could thus be attributed to the differing cultural contexts in which these teachers work and the ways these contexts shape teacher autonomy.

If teachers are dissatisfied with their perceived autonomy, they may feel de-professionalised (Robertson & Jones, 2013). This dissatisfaction can have serious repercussions not only for teachers themselves (Day & Kington, 2008; Parker, 2015; Pearson & Moomaw, 2005; Pelletier et al., 2002; Pelletier & Sharp, 2009; Yu-hong & Ting, 2012) but also for students in improving contemporary education (Barfield et al., 2001; Leroy et al., 2007; Pelletier & Sharp, 2009; Prichard & Moore, 2016). Strong senses of autonomy and professionalism are important because they foster retention, motivation, commitment and efficiency, and better adapt teaching to different students.

Certainly, the cultural context influences the ways people perceive teachers and their competencies. The Canadian teachers interviewed for this research explained that, as teachers in their context generally lack trust, they report having their sense of autonomy undermined. Amidst this broken trust relationship, the Canadian participants struggled to trust colleagues, parents and principals in return, which contributed to their spiralling circles of distrust (Codd, 2005; Tardif, 2013). This mutual distrust also affects teachers’ commitments to their obligations to others (Lundström, 2015). While the Canadian teachers of this research discussed trust in rather critical ways, their Finnish counterparts did not display the same level of criticality. The Finnish participants described their relationships at work as very trustful, so much so that at times they did not even know why they are so trusted. This can draw attention to Finnish teachers’ level of awareness about the
mechanisms of trust. As these teachers are aware of their high status and the well-known rhetoric of professionalism and trust in Finnish teachers, do they believe that they should be trusted in this way because teachers are to be trusted in Finland? Because the Finnish participants tended to articulate trust and autonomy as synonyms, the teachers seemed to believe that they were as trusted as they are autonomous, in line with the Finnish teacher cultural story (see Article II).

The culture of trust in both countries arguably relates to that of professionalism. Even with the similar structural contexts in both countries, teachers’ professional statuses differ based on their cultural conditions for professionalism, which are founded on markers such as autonomy, prestige and trust (Evetts, 2014; Ingersoll & Perda, 2008). The supportive structural and cultural contexts mean that Finnish teachers enjoy positive professional status. As Canadian participants report decreasing autonomy and rather limiting structural and cultural contexts of low prestige and low trust, it is expected that their professional status and perception of autonomy would suffer (Ball, 2003; Helgøy & Homme 2007; Pearson & Moomaw, 2005; Pelletier & Sharp 2009; Prichard & Moore 2016).

The cultural context, which emphasises relationships and discourses, are undeniably influential on how teachers perceive their autonomy. The cultural context influences teachers’ personal perceptions and narratives, and in turn the individual perceptions and accrual of personal narratives contribute to the cultural context (Bruner, 1991; Polkinghorne, 1995). The history and discourses present in Canada and Finland thus inform different understandings, ensuring that concepts such as professionalism or teacher autonomy are embedded in the cultural context.

The larger cultural context provides teachers with perspectives and tools such as local knowledge, language and mainstream ideas which are entwined in their personal narratives (Bruner, 1986, 1987), meaning that their perceptions and narratives are affected and framed in specific ways. They are culturally produced (László, 2008), and in turn provide a direct window into the participants’ culture. The tools provided to teachers by their cultural context is evident in this research, especially in the mainstream ideas and in the language (Bruner, 1986, 1991; Swain et al., 2015). Finnish participants perceived the idea of autonomy in Finland to be mainstream and true for all teachers, affecting their personal experiences and narratives (Bruner, 1987). Canadian teachers, on the other hand, reported feeling that they were treated like “technicians”. This appears to be part of the language and a mainstream concept integral to the reality of teaching in Canada, which is partly shaped by those teachers’ actions (Bruner, 1987). Because both the cultural
context and the structural context are central to the perception of autonomy, both should be included in the conceptualisation of teacher autonomy.

### 5.4 Towards a new conceptualisation of teacher autonomy

Different teachers embedded in different contexts and relationships perceive autonomy in different ways, rendering the individualistic conceptualisation of teacher autonomy insufficient. I argue that teacher autonomy needs to be reconceptualised to include inherent relationality and contextual sensitivity. The traditional conceptualisation of teacher autonomy in the current literature does not sufficiently highlight the importance of relationships or contexts. Moreover, that conceptualisation overlooks that teacher autonomy can mean different things to different teachers depending on the school they teach in and the broader cultural contexts in which they function. Therefore, to reconceptualise teacher autonomy based on the findings and discussion presented in this research, elements of MacDonald’s (2002a, 2002b) definition are useful.

Teacher autonomy could be conceptualised in terms of trusting relationships, as it appears to be a decisive factor in whether a teacher feels autonomous or not. The accounts of autonomy cannot be separated from the accounts of trusting relationships. As teacher autonomy is inherently relational, it needs to be understood as, constructed in and determined by these relations. Positive relationships positively influence teachers’ self-confidence, which is also important for teachers to feel autonomy. This relates to MacDonald’s interpersonal supportive condition (2002a, 2002b), as well as to one’s capacity to be autonomous. Furthermore, teacher autonomy is contextually embedded. Teachers’ structural context should be supportive (see MacDonald’s supportive institutional condition), less rigid and should facilitate teachers’ input based on their professional expertise. Teachers’ cultural context should also support their professionalism, and trust that they are experts at providing quality education. This is represented in part by MacDonald’s (2002a, 2002b) supportive relationships. If professionalism is supported, the level of monitoring should decrease, providing teachers with a heightened sense of autonomy.

This relational conceptualisation of teacher autonomy expands on the complexities of and literature already focused on the individualistic conceptualisation of autonomy. This new conceptualisation of autonomy may help teachers to better understand their own position, as well as that of other actors around them, such administration or students. Teachers may in this sense ponder
what genuine opportunities for autonomy administrators are provided with, what opportunities for the same they are providing to teachers and what genuine opportunities for autonomy teachers provide to students. This more complex conceptualisation of teacher autonomy may help teachers and other school actors to gain a deeper understanding of conflicts in autonomy and identify ways towards solutions.

While this new conceptualisation of teacher autonomy is important, steeper steps must also be taken to implement this conceptualisation in real-world measures. First, we need to disentangle the long-established relationship between teacher autonomy and freedom from control in individual classrooms. As most teachers interviewed for this research considered their autonomy to be bound to their classroom, this needs to be addressed for teachers. Teachers need to consider their autonomy not as limited to a concrete location, but rather as an overarching philosophy relevant to all aspects of their work.

Second, while teachers require supportive contexts and trusting relationships in order to feel autonomous, these present a challenge because they are historically and culturally embedded in contexts. Clearly, effecting cultural change is a hefty task; small-scale changes such as changing one’s school culture might prove easier or more realistic. For example, questioning or diminishing the practices of reporting and monitoring, and involving teachers in decision-making and joint work with administrators could help teachers feel more respected as professionals and establish more trustful relationships (Helgøy & Homme, 2007; Pearson & Moomaw, 2005). This may produce similar result, as observed in the Finnish cases. Arguably, not all of these measures must be in place for teachers to feel autonomous; perhaps changing only few elements could be enough to improve teachers’ sense of autonomy. In this regard, changing only external factors might not change how autonomous teachers feel (Deci & Ryan, 2012). Individual teachers’ self-confidence, motivations and degree of compliance are also factored into this equation (Barfield et al., 2001; Benson, 2000; Chirkov et al., 2003; Deci & Ryan, 1985; Ryan & Deci, 2000). Nevertheless, examining more closely the cultural stories of teacher autonomy in various contexts can shed more light on how to better support teachers in feeling sufficiently autonomous, thus increasing their wellbeing at work.

Third, the structural context is not easy to change, as it often is crafted and implemented in part at the national level. In this regard, one major problem reported by the teachers of this research is the requirement that they cover a heavy mathematics curriculum to help students achieve good scores on high-stakes
examinations. As this problem is widespread, many educational management parties are looking for solutions. For example, the province of Alberta in Canada has been gradually diminishing the quantitative importance of high-stakes examinations at the end of upper-secondary education, allowing more time for students to take and retake them (French, 2017; Fung & Chu, 2016). If teachers advocate for such efforts to gain momentum, it could lead the way to a more open structural context, allowing for more teachers to provide input.

I argue that we need to shift the understanding of teacher autonomy to a course which is more sensitive to contexts. A relational conceptualisation of teacher autonomy provides a more comprehensive understanding which may empower teachers by providing them with more avenues to actively influence their own autonomy rather than just reacting to external influences upon it.

5.5 Moving from reaction to proaction to effect sustainable change

I argued earlier that teacher autonomy is positive and something to strive for, and that teachers generally desire autonomy and are willing to take various actions in order to gain more autonomy or keep what they already have. This can lead teachers to become reactive if they feel their autonomy is threatened. While this is the position adhered to in this research, it is important to acknowledge that teacher autonomy may not always be deemed desired and positive, to be dispensed without restrictions or to be gained at all costs. For instance, Ingersoll (2003) mentioned that teachers being left without any control could ultimately result in a lack of coherence and of accountability in meeting the public demand for schools, while Juntunen (2015) claimed that if teachers are granted too much autonomy, the equality and the quality of Finnish education could be jeopardised. While I can appreciate those dangers, the teachers interviewed in this research who felt autonomous did not misuse it or plan to misuse it. They used their autonomy as experts to best serve their students and to help them reach their full potential. The teachers of this research reported wanting more individual, collegial and general professional autonomy (Frostenson, 2015) mainly in order to decrease the judgement and accountability they face, and to regain their professional status. On the other hand, teachers could come to feel that they have too much autonomy if they are given too many unimportant decisions to make. For instance, some principals might transfer responsibility for certain unimportant decisions to teachers so as to provide a (false) sense of autonomy (Paulsrud & Wermke, 2019). It is therefore important to critically distinguish which decision-making
opportunities are important for teachers (Paulsrud & Wermke, 2019; Wermke et al., 2019) and how much autonomy would truly endanger the coherence and quality of the broader education system in terms of balance between control and consent (Ingersoll, 2003). The findings of this research indicate that the most important risks with regard to autonomy was for teachers to feel they do not have enough and for them to become reactive to control if they feel their autonomy is threatened.

One of the aims of this research is to empower teachers and to ameliorate their tendency to be reactive to controls. Empowering teachers does not mean encouraging them to take on more responsibility for decision-making with the aim of self-governance (Lawson, 2004; Paulsrud & Wermke, 2019); rather, it means giving them tools to better understand their situation, assess complex problems and be proactive in taking action to achieve positive and sustainable solutions (Klecker & Loadman, 1998; Lee & Nie, 2014; Paulsen et al., 2016; Short, 1994; Thomas, 2017; Zembylas & Papanastasiou, 2005). I argue that if teachers understood autonomy in terms of trusting relationships and as bound to context, perhaps the different controls on their work would seem less significant and problems related to reactions could be avoided. Thereby, I argue that a new conceptualisation of teacher autonomy has the potential to induce teachers to be more proactive and less reactive.

While controls on some teachers’ work is perceived as diminishing their autonomy, this is not true for all teachers, so changing external factors might not change how autonomous teachers feel (Deci & Ryan, 2012). Furthermore, as changes on controls for external parties are hard to implement, or if teachers feel that they do not have sufficient autonomy, it could be more beneficial for teachers to be proactive and enabled to improve their autonomy themselves by addressing issues pertaining to trusting relationships and contexts within their own school (Short, 1994). For instance, if teachers became more aware of circles of distrust and their impact, and of obligations and of expectations embedded in trust, teachers could identify when trust is enhanced or impaired and act upon it. Awareness of the situation is always a first step in the right direction.

To empower teachers to be proactive in findings ways to improve their autonomy, their levels of compliance and of criticality should be examined closely. When teachers endorse what is required of them, or are not critical of their situation, it might prove difficult for them to strive to improve situations. Arguably, autonomy is bound to teachers critically evaluating the elements of their context, and in deciding where they stand (Benson, Grabe & Stoller, 2001). Criticality enables teachers to make sense of their work, to defend their position, to question and
criticise norms freely and reflect on them according to their beliefs, experience and context (Bruner, 1991; Govier, 1993). When teachers are more critical, they may become less compliant with demands and more proactive in improving their autonomy. As such, if teachers are more daring to take liberties, are less accepting of their “curriculum faith” and less likely to seek comfort, and if “failed attempts” become less contentious, more space could be created for teachers’ professionalism and creativity to provide lessons which could address students’ needs differently or more efficiently.
6 Evaluating the research

Because of the explorative nature of my research, many decisions were made before and during the research process. While many decisions have already been explained in this dissertation, this chapter presents a discussion of further research choices and their ramifications. It is a reflection on the different dilemmas and challenges I encountered in my work, and how I overcame them. I also offer an appraisal of my research based on several criteria found in the literature.

6.1 Challenges and limitations

I deem it important at this point to address the reasons behind my choice to focus on the concept of autonomy rather than agency. In the literature, the concepts of autonomy and agency are at times used as synonyms (Erss, 2018; Lier, 2007), overlapping concepts (Erss, 2018) or parts of one another (Benson, 2007; Hunter & Cooke, 2007; Jiménez Raya & Vieira, 2018). Benson (2007) best described how I see the relation between the two concepts: autonomy encompassing agency. I understand agency as presented by Korhonen (2014) and Hunter and Cooke (2007), inspired by Giddens (1984). In its simplest expression, agency describes an agent’s capacity to act with intention in a socially constructed world. Consequently, in essence, teachers’ agency is determined by their intentional actions (Toom, Pyhältö & O’Connell Rust, 2015). Similarly, Erss (2018) claimed that teacher agency is related to what teachers do within the profession’s limitations—teachers practice agency. Autonomy, on the other hand, is discussed in the literature in more encompassing and liberating terms than agency (Erss, 2018). As such, teacher autonomy relates to the freedom teachers have (or not), to act according to their own motivations (Erss, 2018; Ryan & Deci, 2000). To contrast the two terms simply, teachers’ agency relates to their capacity to act in context, whereas teacher autonomy relates to the freedom they have to act in context. The latter encompasses my research interest, and many teachers’ concerns. Finally, one more reason used to justify this choice is that autonomy seems to be a “mainstream” concept among teachers. This research is based on teachers’ interview data and all the interview transcripts gathered; the participants mentioned the term autonomy frequently, while the term agency was not mentioned once. This is not because the term autonomy was lost in translation: French-speaking participants used the word autonomie and Finnish participants speaking English could have translated “autonomy” from the Finnish equivalent autonomia.
One challenge arose when I was establishing cultural predispositions and comparisons, particularly in Chapter 2. I was aware that I ran the risk of oversimplifying a vast, complex and diverse population, as well as the ways of thinking and being in each context. However, I deemed this risk to be worth taking because it also provided me with the opportunity to challenge the mainstream cultural statements present in each context. For instance, despite the fact that teacher autonomy is well-known and firmly established in Finland, Finnish teachers in this research reported feeling pressure due to high-stakes examinations and the practice of teaching to the test. Cultural statements which may explain ways of thinking and being in each context can also be useful for teachers both within and outside of this context. For instance, a Finnish cultural statement read by a Finnish teacher could be self-evident or trivial, or a good reflection point to contrast or explain their own understanding. The same cultural statement read by a Canadian teacher can seem exotic and can be surprising and thought-provoking (Cortazzi, 2014). While compiling cultural statements in this work, I was also cautious to avoid sweeping assumptions as much as possible, even if this is a very difficult to avoid. Teachers of this research within both Canada and Finland come from locations far distant from one another and belong to different local cultures. Thus, it is virtually impossible to assume a specifically common set of values and beliefs held by everyone in both groups. Nevertheless, cultural statements and predispositions are valuable as a baseline to examine teachers, as their understanding and perceptions can be more fairly appraised by considering them among their larger contexts.

Despite the broad cultural predispositions, it was challenging to clearly ascertain how participants’ use of language impacted their narratives. Participants of this research coming from multiple cultures have different cultural toolkits (see Bruner, 1991) from which they make sense of their reality, and frame to some extent the ways they tell narratives. Is hyperbole seen as a convincing way to carry a storied message in one or both of the contexts? Is resilience or victimhood more convincing in one culture than the other? Different contextual premises may influence the extent of the use of narrative seduction or narrative banalisation (Bruner, 1991). The intention behind a narrative should be taken into consideration in interpreting it and its meaning in the light of a shared background of knowledge (Bruner, 1991). Coming from the Canadian context and knowing the Finnish one, being myself an upper-secondary school mathematics teacher, I had an extra insight into the participants’ intentions and background knowledge, which gave me an advantage in interpreting and analysing the data. While this insider’s position can
be considered precarious (Berger, 2015) if one’s awareness of the dangers is heightened, the advantages of being an insider exceed those of being an outsider.

Handling different languages in research can be challenging. As Bruner (and Vygotsky before him) explained (Bruner, 1984), people make and express meaning through pre-existing concepts and language packages (languages are rooted in culture, understandings, history, gender, etc.). During the interviews, the Finnish participants all had to convey their messages in English, a language code which was not their mother tongue. Some of the participants experienced difficulty in conveying complex ideas in English. According to both Bruner and Vygotsky (Bruner, 1984), as a consequence their messages might have been more representative of their consciousness and meaning in their mother tongue. This results in a break in consistency, as the Canadian participants all conveyed their messages to me in French, which was their mother tongue and my own. Those participants were able to more easily express complex thoughts, which was reflected at times in the length of their interviews and in the richness of meaning of their answers. However, I translated all of their interviews into English, which also counts as a break in the language treatment because translations are interpretative (Riessman, 2008). While acknowledging this, and that one can never be sure that the participants’ consciousness and intentions were fully translated, my English skills are sufficient to represent the full meaning of the interviews. Co-authors, language checkers, journal editors and reviewers further altered the English translations. However, I always made sure that despite minor changes, the participants’ full messages were still conveyed, and I have handled the challenge of using multiple languages in this research competently. One other challenge I met in relation to the linguistic aspect of this research is that my limited use of Finnish prevented me from engaging with Finnish information sources such as Finnish teacher union publications, Finnish academic articles, Finnish media, etc. This limitation is common and natural for researchers addressing topics in a language they have not mastered, and while the aforementioned Finnish information sources could have provided further information, there is a wealth of material about Finland and its education available in English which enabled me to engage in depth with the topic at hand. In addition, two of my supervisors are native Finnish speakers and experts in the domain of education, and were therefore able to assist me in terms of this limitation, thereby ensuring that I had sufficient knowledge to tackle the topic of teacher autonomy in Finland.

Additional challenges presented themselves during the data collection and interpretation phases. Not that the sample size matters (Patton, 1990), but it was
difficult to gather more participants and thereby obtain a broader picture of contextual narratives. In the beginning of the research, I managed to communicate with several teachers in both contexts, but for various reasons many of them declined the interview invitation, especially Finnish teachers. Understandably, the interview in English was a hurdle for many of them, but not for most IB teachers. While IB teachers are not necessarily representative of Finnish teachers as a whole professional body, they were the most inclined to be interviewed in English. Recruiting some of them for interview while being aware of their exceptionality was a compromise I had to make. However, as there was a notable cohesion in the discourses of Finnish teachers working in and out of IB, I deemed their work assignment not to be fundamentally relevant or related to their perception of autonomy at work. Furthermore, I strived to keep the articles balanced, including voices of teachers working both in and out of IB. In total, 23 teachers confirmed their participation in the second data collection. I concluded that this number of participants was sufficient for this type of narrative research. The teachers who did accept the invitation were for the most part confident and interested in participating, which was visible in the quality of their interviews. Despite this quality and enthusiasm, during the examination of the narratives, I kept in mind that the narratives represent one’s reality at that exact moment in time, in that exact location and context, in that exact interview setting and mood (Lieblich et al., 1998). While this can be considered a drawback of the use of narrative research, for difficult replicability or validation (Lieblich et al., 1998), my ultimate aim reflects that of Krefting (1991, p. 216): “Qualitative research emphasises the uniqueness of the human situation, so that variation in experience rather than identical repetition is sought”. In the case of this research, with arguably sufficient uniqueness and variation, the narratives collected allowed for exceptional and quality snapshots in time of how teachers perceive their autonomy.

Even in assessing a single context, I kept in mind that every participant has a unique background, views and opinions, and that teachers’ attitudes, beliefs, culture, experience and personalities can influence their sense of autonomy (Yu-hong and Ting, 2012). Even gender influences how people tell narratives (Watson, 2006). Being aware of this, selecting a group of participants with a balanced mix of genders for interviews and analysis was important. Furthermore, the different locations, along with individual teachers’ characteristics, may have an impact on their motivations to share their narratives—either to convey a personal message or tell what the researcher wants to hear. The Canadian and Finnish participants, between and even within their own national contexts, taught in different languages
and different programmes, in schools and cities of different sizes. All of those specificities could have impacted the participants’ teaching experiences and how they reconstruct their experiences in their narratives. Acknowledging those differences and the small scale of this research, I must underline that my aim was not to generalise the findings to all Finnish and Canadian teachers. The teachers of this research have rather polarised perceptions of autonomy (see Articles II and III) but this level of polarisation may not be the same in other aspects of their work. These teachers in the two contexts were merely exemplifying how teacher autonomy is perceived in different contexts.

6.2 Appraisal of the research

Many qualitative researchers have exchanged principles of validity, reliability and objectivity for principles of trustworthiness and authenticity (Denzin & Lincoln, 2011; Mishler, 1990). While several researchers have discarded the principle of validity altogether in qualitative research (Heikkinen et al., 2012), many others still value it (Creswell & Miller, 2000). In this sub-chapter I will present my version of the validity evaluation of this research, based on different authors’ points of views. The way to appraise qualitative research varies from one study to another, and therefore researchers must display criticality, integrity, transparency and insightfulness when evaluating their own research (Krefting, 1991; Lieblich et al., 1998). In so doing, I decided to appraise my research using general qualitative methods and specific narrative research methods. In a more general qualitative fashion, I purposefully chose to appraise my research according to the criteria described as credibility and dependability (Creswell & Miller, 2000; Krefting, 1991; Lincoln & Guba, 1985). In a specific narrative method elaborated by Heikkinen and colleagues (2012), I focused partly on historical continuity, but more substantially on reflexivity, dialectics, evocativeness, workability and ethics. Furthermore, Lieblich and colleagues (1998) discussed criteria for research appraisal in their specific reflection on narrative research, and so I chose to appraise my research’s width, coherence and insightfulness.

In the light of all these criteria, I have critically chosen to evaluate my research according to five main aspects. While they may overlap in some regards, I will discuss specifically the aspects of reflexivity (Heikkinen et al., 2012), width, coherence and insightfulness (Lieblich et al., 1998). I will also discuss ethics (Heikkinen et al., 2012) on its own in the next sub-chapter. For each aspect I will discuss different related criteria; for example, the discussion of width (Lieblich et
al., 1998) will also include a short discussion of credibility (Lincoln & Guba, 1985), evocativeness and dialectics (Heikkinen et al., 2012).

6.2.1 Reflexivity

Reflexivity appraisal is paramount in the evaluation of narrative research (Creswell & Miller, 2000; Heikkinen et al., 2012; Niemi, Heikkinen & Kannas, 2010; Spector-Mersel, 2010). Creswell and Miller (2000, p. 127) explained that researchers should “self-disclose their assumptions, beliefs, and biases. This is the process whereby researchers report on personal beliefs, values, and biases that may shape their inquiry”. Indeed, as narrative research involves interpretations which are shaped by researchers’ social and cultural backgrounds, it is fundamental for them to explain early in a report and throughout the research their motives for the research. They do so by presenting themselves personally and their understanding of the world, in order to bracket themselves out as much as possible (Creswell & Miller, 2000). It is important for the reader to be able to understand the conclusions of the researchers based on the researchers’ discussion of bias and their analysis.

At the beginning of each interaction with the participants, I sent them detailed information about my background, my research and myself. Reflexivity was reinforced in every conversation I had with the participants prior to their interviews. Early in this dissertation, I again introduced myself and my motives for research. I highlighted my past as a teacher in an effort to be transparent with regard to my empathy for teachers. Moreover, I am clear on my theoretical understanding of different concepts in Chapter 3, and I purposefully and extensively developed my ontological and epistemological stances in Chapter 4. In Chapter 4 I also explained how my relationship with the material developed and exposed my biases. My awareness of familiarity issues allowed for caution in dealing with participants and data; I strove to keep the interviews focused on the participants’ experiences and perceptions, asking questions about autonomy without mentioning the word. In Chapter 5, I explained how my own understanding of teacher autonomy changed during the course of this research, which highlights the openness of this research process and myself as a researcher, despite my familiarity with the topic and contexts. Overall, my views and assumptions are clear enough for the reader to understand the basis upon which I analysed and discussed the data, and to ensure some level of confirmability (Lincoln & Guba, 1985). I therefore consider that I was reflexive throughout the research process.
6.2.2 Width

The width aspect concerns the comprehensiveness of the evidence (Lieblich et al., 1998, p. 173). Here, the rigour of the researchers and the research work is addressed. This regards the quality of the material, analysis and discussions, with the aim of convincing the reader that the research was conducted in an extensive, thorough and robust manner (Krefting, 1991). In order to convince the reader of this quality, credibility (Lincoln & Guba, 1985) can be reflected in the researchers’ familiarity with and extensive knowledge of the subject, the research material and the participants (Krefting, 1991). To do so, researchers should discuss criteria such as thick rich descriptions of settings and their engagement in the field in which they worked (Creswell & Miller, 2000).

In order to ensure my credibility as a researcher, I strove to demonstrate my familiarity with the subject, participants and settings. I therefore provided detailed descriptions about different theoretical concepts in Chapter 3. I discussed details of the settings and participants in Chapters 2 and 4, where I aimed to display my knowledge of them as well as to provide my readers with their own sense of familiarity with the settings and the participants. I shared details about my engagement in the field to convey a sense that I know well the research settings and participants. My engagement in the field was in a sense limited to the time of the interviews themselves, which at the same time limited the scope of my relationships with participants (Creswell & Miller, 2000). However, I strove to show that I have been otherwise involved in both contexts for extended periods of time. As explained in Chapter 1, my extensive knowledge of both contexts allowed me not only to gain a comprehensive understanding of the context and their implications, but also to appreciate and relate to what teachers experience and perceive (Creswell & Miller, 2000). Moreover, I insisted on meeting the participants in person, which arguably allowed for a deeper insight into their contexts, even though they were away from their homes and classrooms.

For research to be credible, the readers should be able to arrive at conclusions similar to those of the researchers on their own. This concept is close in meaning to the principle of confirmability (Lincoln & Guba, 1985) and can be reinforced to the reader by emphasising strong evocativeness and dialectics (Heikkinen et al., 2012; Niemi et al., 2010). Peer debriefing (Creswell & Miller, 2000) is used to enhance the dialectics and the confirmability of research. I strove to demonstrate some confirmability through peer debriefing, which happened when co-authors, who were familiar with the research data, critiqued every part of the research.
Moreover, this dissertation is based on three peer-reviewed articles, of which several external reviewers provided written feedback to question different parts of the research and enhance its quality. The credibility of a study can also be conveyed via evocativeness, e.g., when the narratives presented provoke a sense of verisimilitude and affect the readers’ imagination, emotions and thoughts (Heikkinen et al., 2012; Niemi et al., 2010; Patton 1999). Evocativeness can also allow the readers to appraise by themselves the eventual transferability of findings (Creswell & Miller, 2000). While the voices of the participants are not directly present in this dissertation, they are definitely central in Articles I, II and III. Those voices were discussed in Chapter 5, while the importance of verisimilitude in this research was covered in Chapter 4. Furthermore, during my doctoral studies, I presented my research in different settings, and I found that a frequent comment on my research regarded the emotions created by the voices of the participants and the way in which they were embedded in the research. In this sense, my research is also evocative due to its strong dialectics. As such, this research successfully presents different participants’ voices and different interpretations of what the participants conveyed (Heikkinen et al., 2012) in Articles I, II and III. I am confident that I have preserved the integrity of the participants’ voices and their diversity, rather than presenting only my own voice. Thus, the polyphony of the participants’ voices was conveyed within their contexts. The strong dialectics and evocativeness protected the authenticity of the participants’ narratives (Lincoln & Guba, 1985; Niemi et al., 2010), thereby contributing to the credibility and width of my research.

6.2.3 Coherence

The coherence aspect regards the way all parts of the research interlink to yield a complete and meaningful whole (Lieblich et al., 1998). Rigorous coherence is achieved using extensive and explicit processes, which are demonstrated via dependability (Krefting, 1991; Lincoln & Guba, 1985)—i.e., explaining and following a clear method and steps. My research can be deemed dependable as I explained in detail how the data was collected, interpreted and analysed in Chapter 4. In light of my detailed ontological and epistemological stances, I have allowed the readers to follow each of the steps and interpretations which led to the findings and to judge for themselves the applicability of the analysis (Lincoln & Guba, 1985). Consistently maintaining interactions between the theory, the context and the steps of analysis allowed me to create some distance from familiarity, and be systematic in my research (Moen, 2006).
Coherence can also relate to historical continuity (Heikkinen et al., 2012), where clear timelines in the study as a whole as well as in the analysis and emplotment are significant elements of carrying out coherent research. Historical continuity was present throughout the general dissertation as well as in presenting the research steps logically and chronologically, in the participants’ discussions of their autonomy in time in Chapter 5, and before and after reforms, and embedded in their historical context of Chapter 2. Historical continuity was explicitly displayed in Article I wherein the events of a narrative were conveyed in a logical sequence, explaining the causality between each event (Heikkinen et al., 2012). As I was able to display a level of historical continuity and significant dependability in my research, I was also able to maintain rigorous coherence throughout the research process.

6.2.4 **Insightfulness**

The aspect of insightfulness concerns originality and innovation (Lieblich et al., 1998). Insightful narrative research should push further the meaning of the participants’ narratives through their analysis and discussion, in order to connect to larger meanings and understandings. If researchers manage to convey, analyse and discuss particular narratives in a way the reader can understand and apply them to other situations (or their own), the resulting research is arguably insightful. As such, I see this principle as relating to transferability (Lincoln & Guba, 1985) and directly to the principle of workability (Heikkinen et al., 2012), which also aims to push further and prompt change and social action.

Insightfulness is conveyed when I discussed the participants’ understandings of teacher autonomy in Chapter 5, wherein I elaborate on a meta discussion based on the three articles and the participants’ discussion in both contexts. This can be seen, for example, in Sub-chapter 5.1, where all of the teachers seemed to have a traditional understanding of teacher autonomy, or in Sub-chapters 5.4 and 5.5, where the understanding of teacher autonomy related more or less to them being reactive to controls. Originality and innovation are conveyed in discovering the need for and the development of a new conceptualisation of teacher autonomy. As the discussion of Chapter 5 invited teachers to critically evaluate their situation, and as social actions are encouraged through practical suggestions, my research also conveys workability (Heikkinen et al., 2012). Furthermore, through encouraging new relational understandings of autonomy, I also encouraged teachers’ actions and empowerment, aiming to convince them to “believe in their
own capabilities and possibilities to act and thereby encourage new practices and actions” (Heikkinen et al., 2012, p. 9). While this encouragement in practice remained limited, this encouragement is theoretically clear in this dissertation and in Articles I, II and III.

Although I certainly consider that my research could be applicable to other teachers and contexts, I am not aiming to make generalisations. However, even though my research is intended to represent perceptions, contextual understandings and life histories by pushing the participants’ narratives further and making connections to the larger contexts of teachers, this research exhibits transferability (Krefting, 1991; Lincoln & Guba, 1985) under the umbrella of insightfulness.

6.3 Ethical considerations

In narrative research, ethical concerns are fundamental and therefore presented here on their own. Generally, the ethics of narrative research pertain to relationships with the participants, then to relationships between the researchers and the research (Heikkinen et al., 2012). As such, ethical issues pertain to researchers’ integrity and their use of research data.

My relationships with the participants are paramount from an ethical standpoint and I strove to base my interactions with them caring reflexivity, “which is defined as caring relationships based on recognising and respecting the participants in their specific contexts” (Heikkinen et al., 2012, p. 17). As participants had to give me their time in the form of an interview, I made myself as flexible as possible to meet the participants in their context and at their convenience. I therefore travelled to Canada twice to collect data, and in Finland I travelled across the country to meet with the teachers in person. To conduct narrative interviews, the settings must be designed delicately, so to avoid intrusiveness, I asked all the participants to choose their preferred interview location. In an effort to treat participants fairly and equitably, a week or so prior to the interviews, all the participants received information about the research, the aims, and myself as a researcher and a teacher. I strove to make the information as easily understandable as possible from both contextual perspectives (Chirkov et al., 2003). Participants received an information package which covered issues such as discussion of their anonymity, confidentiality, or what could be beneficial or possibly delicate for them. The participants had to sign an informed consent form (see Appendix 1) to enforce the protection of their own rights; this emphasised that their participation was voluntary and ensured that they were aware they could withdraw from the research at any point.
At the beginning of the interview sessions, I discussed again with the participants their rights to privacy and the steps I took to ensure that protection. I wanted to make sure that they all understood well what the interviews were used for, and I wanted them to feel that they had authority over the information they gave me. Before all the interviews, during preliminary contact or just prior to the session, I purposefully initiated informal conversations with each of the participants to give them a feel for my research and myself, and to put them at ease as much as possible. I strove to connect with the participants and make them feel comfortable, respected and heard in the hope that they would tell their life story without feeling that they were being judged or fearing that their narratives would be misused or misconstrued. I wanted the participants to feel that they could convey genuine narratives about what they see as important, not about a specific agenda or what I wanted to hear. In talking about my own career, I made a special effort to underline my background as an upper-secondary school mathematics teacher in Canada to make myself as relatable as possible. I think this helped the teachers feel that I could understand their perceptions and struggles. I also felt that this evened out the “hierarchy” which can be perceived in interview settings, as often participants and researchers have different perceptions of what the interview entails (Noy, 2008).

During the interviews, I listened rather than engaged in discussions with the participants. As a result, after the interview, many participants told me that they felt heard and understood, that the interview felt great and therapeutic in a way. Many teachers thanked me for the experience, as they found it a positive and, in some cases, even an empowering one (Lee & Nie, 2014; Zembylas & Papanastasiou, 2005). I was very careful in how I used the data in this research because it was essential that no identifying information was conveyed. Therefore, as soon as I transcribed the data, all the names were all changed in such a way that only one document included the real first names of participants. No other documents used in this research or dissertation record their real names or specific identifying information.

While the participants’ voices were always on my mind after their interviews, I chose to limit each participant’s input to their single interview. This choice was not easy to make, as I was aware that the participants could have had many elements or perspectives to add later, but conducting only a single interview with each participant prevented them from confirming their own narratives. Nevertheless, I made this choice because I interviewed most teachers at a specific point in time, and their view of this specific moment might have shifted afterwards—they might have not remembered or found importance in the same topics. This is especially
true because it took me months to transcribe the interviews, so to have had such a discussion months later, in this case, could have occasioned significant changes in their perceptions. Furthermore, participants are not necessarily conscious of or in agreement with the whole theoretical, contextual and methodological bases that inform my interpretation of their narrative (Krefting, 1991, Riessman, 2008). I also think that participants might have internalised discussions we had together or reflected further on the issues after the interviews (Krefting, 1991), which might have affected the way they perceived their autonomy. While this could be interesting, I wanted spontaneous narratives which spoke to how the participants experienced and understood autonomy before major changes in their work, which was best crystallised by conducting a single interview.

After the articles were written, based on the data collected, the contact with the participants could have been enhanced, in order to share my findings and research with them. For the Finnish teachers, it is easier as all the participants who were interviewed in English could also read the English articles published. This is not the case for many of the Canadian participants, which is why I had to be strategic in choosing which participants to contact given the very limited amount of time I had. I therefore chose to contact Nora, who had a longer time to reflect upon her narrative (career story) and who was the only participant of my research to have a complete article dedicated to her case. I contacted Nora and, on my third trip to Canada in the summer of 2018, I met with her at her home, where I read Article I to her in French. She said that she completely agreed with everything I had included in the article and that she could really recognise herself. She mentioned that reading the text was like seeing a parallel universe: throughout her teaching career she had had an “unshakable self-confidence” and could not foresee any situation that could temper it. She mentioned that that particular administration and the harsh implementation of the reform created a “perfect storm” which eroded her self-confidence. Nora explained that if it had only been the reform (with a different principal), or only the harsh principal (without the reform), she would not have found the situation so difficult. The combination of the two is what “destroyed her self-confidence”. Nora said that a year after the interview, the very influential principal left the school and her self-confidence, along with her sense of autonomy, were replenished. She explained that her relationship with this principal significantly impacted how she felt at that time. Nora therefore contributed in some ways to the knowledge production of this dissertation after the interview, while also showing how teachers’ perceptions change in time. She reasserted that autonomy is definitely relational and provided some validation of the interpretation of her data.
Nora also mentioned explicitly that she felt empowered in understanding the insights stemming from the study of her case. I can therefore claim that the first and most personally involved participant of my research was empowered by her participation in this research.

The dissemination of the data, analysis and findings of this research was done in different ways. Articles I, II and III were published in peer-reviewed journals. Moreover, the findings of this research were presented informally to my masters students (enrolled in the Edglo masters programme at the University of Oulu) and to the Living Stories (University of Oulu) research community a few times. It was also disseminated at two national and three international conferences, where members of the audience told me how vivid they found the participants’ quotes I presented. Some audience members told me that they felt touched or stunned. Those examples allowed me to observe that my research had an impact on the audience.

On a final ethical note, I must acknowledge that this research is the product of a multitude of choices. At every fork in the road I strove to choose the better-informed and most ethical route and the one which would benefit the most people. I made choices regarding who to listen to, what to research and how to interpret what I found. I also made choices regarding the audience for whom am I writing. In making those choices I became even more aware of the role and authority of researchers, and of the implications of my choice to write in English. While English has the most potential to contribute to the academic conversation, and is beneficial in terms of reaching larger audiences, it did not necessarily benefit those who participated in this research, whose mother tongues were Finnish and French. This is why I intend to write a short research report in English and in French to distribute to the participants.

Through the discussion presented in this chapter appraising my research, I have conveyed integrity, transparency and honesty in how I conducted my research and communicated my findings. Since my research conveyed reflexivity, width through credibility, coherence, insightfulness and ethical awareness, this indicates that this research was conducted in a robust way. Despite the limitations and dilemmas encountered during this research, the evaluation of my work reveals it to be high-quality, insightful and ethical research.
7 Implications, contributions and further research

This research reveals that the concept of teacher autonomy is complex and interwoven into relationships and contexts. Teachers from different contexts perceive autonomy in different ways because those perceptions are rooted in their different cultural stories. As exemplified by the different responses of the Canadian and Finnish participants of this research, some teachers associate autonomy with freedom from control while others associate it with trust (see Articles II and III). Because of the depth and insight of the narratives depicting teachers’ work and contexts (Cortazzi, 2014; Lieblich et al., 1998, Mattingly & Lawlor, 2000; Moen, 2006), this research reveals that not only do the perceptions of teacher autonomy differ but the meaning of autonomy also differs from one context to another. As such, this research reveals that the individualistic conceptualisation of autonomy presented in most previous research about teacher autonomy must be reconsidered for many reasons.

It is crucial to establish a conceptualisation of teacher autonomy which is relevant to most teachers, wherever they are. If future teacher autonomy research is conducted based on conceptualisations and definitions which are individualistic and established when teachers are free from control, that research would just be perpetuating and imposing on teachers a meaning or conceptualisation of autonomy which may not be relevant to them. A relevant conceptualisation would also promote future research to progress in a direction which is accurate, inclusive and empowering. Previous definitions of teacher autonomy which emphasise freedom from control (Benson, 2008; Friedman, 1999; Gwaltney, 2012; Huang, 2005; McGrath, 2000; Pearson & Hall, 1993; Pearson & Moomaw, 2005; Shaw, 2008) should thus be used critically and carefully. Reconceptualising teacher autonomy in terms of relationships would be useful to acknowledge the fundamental importance of relationships to perceptions of autonomy (see Sub-chapter 5.2), and that genuine autonomy does not exist in isolation. Reconceptualising teacher autonomy with cultural sensitivity would also take into account that not all teachers understand and perceive autonomy in the same way and that perceptions of autonomy are embedded in specific contexts.

As a result, this research concludes that a reconceptualisation of teacher autonomy could be inspired by MacDonald’s (2002a, 2002b) definition of relational autonomy, which basically requires supportive social and institutional relationships to allow for autonomous actions. Therefore, I maintain in this research
that relational teacher autonomy requires trusting relationships and supportive contexts, allowing genuine opportunities for teachers to make independent decisions regarding the best learning of their students. In other words, in future studies examining whether teachers feel autonomous, instead of focusing on the controls exerted on teachers, it would be better to focus on the nature of the relationships teachers form in the course of in their work and on the nature of the context surrounding their work. This reconceptualisation requires in itself shifts in the teachers’ understanding with regard to the structural and cultural contexts.

This research encourages changes to be effected with regard to teachers’ relationships and contexts, designed and implemented at a grassroots level. Teachers are pivotal in the design, implementation and continuity of changes in their work (see Article I). Changes are more likely to be successful and sustainable when teachers feel invested in the change and when they see a genuine purpose for it (Hargreaves, 2004; Pearson & Moomaw, 2005; Pyhältö et al., 2014). As such, if teachers are enabled to make incremental changes to yield more supportive relationships and contexts, they may in turn become less reluctant to undertake further changes to their work. To enhance teachers’ self-confidence and proactive behaviours while shifting away from reactive behaviours, people should encourage and trust teachers as devoted and responsible professionals (see Articles I, II and III). Well-orchestrated, teacher-led changes could therefore decrease teacher turnover, which is a particularly significant problem among mathematics teachers (Perryman et al., 2011).

This research has undergone shifts in understandings since it was first undertaken, when it was based on a rather individual conceptualisation of teacher autonomy. The research questions informing each of the three articles show how the focus of this research has evolved: Article I focused on the entanglement of the perceptions of autonomy and self-confidence in the context of one teacher; Article II focused on Canadian and Finnish teachers’ perception of their autonomy in relation to their cultural contexts; and Article III focused on the role of trust in relation to the perception of teachers’ autonomy in different contexts. The progression of my doctoral research journey can also be seen in the focus of my work shifting from the lower tier of Bloom’s taxonomy (Dettmer, 2005) pertaining to individual experiences and perceptions of teachers’ autonomy (in Articles I and II); to groups of people sharing perceptions and contributing to particular understandings of teacher autonomy (in Article III); to the higher tier of the taxonomy pertaining to more general concepts that apply to many individuals’ experiences, developing a conceptualisation of teacher autonomy which is more
universally applicable. However, other elements of this research have remained stable since its inception, focusing on the contextual nature of upper-secondary school mathematics teachers’ perceptions of autonomy. These elements are reflected in the overall research question. The Canadian and Finnish contexts were used merely as examples of different contexts in which autonomy is perceived and narrated differently by their teachers, which explains why the title of the research addresses contexts in general rather than in particular cases. The title not only represents the evolution of my process in conceptualising teacher autonomy but is also an indication of where this research could lead. While upper-secondary school mathematics teachers are at the centre of this research, the overall findings and discussion have significant application potential beyond the current scope, and could apply to upper-secondary school teachers of other subjects who also deal with high-stakes examinations. The different contexts of the title therefore refer not only to locations but also to teaching different subjects.

The contributions and implications of this research are manifold. In response to the aims previously established, it has practical and social implications, underlining the importance of making space for teachers’ voices. This research contributes to the collection of teachers’ narratives addressing challenges and experiences pertaining to teachers and their perceptions of autonomy. It could thus benefit and empower other teachers undergoing similar challenges or seeing themselves reflected in the participants of this research. The deep insight into questions of autonomy provided by this research can help all education professionals to understand and find new solutions for conflicts arising from struggles over teacher autonomy. This research could also be helpful for anyone involved in education to better understand the work and situation of teachers. For instance, this research provides a genuine view of the autonomy of teachers in Finland, in light of the Finnish culture. It also provides a genuine perspective on how autonomy, controls, reforms and trust are articulated by teachers in different contexts. This research’s findings do not imply that the contextual findings should be generalised to all Finnish and Canadian teachers, nor to all mathematics teachers: This research as a whole is on a small scale, and the different locations and individual characteristics impact the participants’ understandings and perceptions. Nevertheless, this research provides a rich analysis of upper-secondary school mathematics teachers in different contexts and could be utilised in many ways.

This research has implications for teacher education in both pre-service and in-service settings. It will benefit teachers because it offers more profound and comprehensive ways to address complex issues concerning their autonomy, both
for themselves and for agents with whom they work. This research provides knowledge and conceptual understanding as well as tips and examples for teachers to understand, improve, and initiate changes to their own professional autonomy. As such, this research responds to its initial aim to provide an impetus to empower teachers to effect changes they see as relevant, trying to shift their reactive ways to proactive ones if they are dissatisfied with their autonomy. As per suggested in this research, if teachers’ autonomy is supported in relationships and contexts, teachers may become more motivated to take advantage of opportunities to change their working situations. In this way, empowered teachers are better equipped to meet challenges related to autonomy and to identify and solve problems on their own. In turn, enhanced autonomy has the potential to positively impact teachers’ professional sense, wellbeing, self-confidence, motivation, commitment, retention, efficiency and satisfaction (Chirkov et al., 2003; Day & Kington, 2008; Ingersoll, 2001; Parker 2015; Pearson & Hall, 1993; Skaalvik & Skaalvik, 2009; Yu-hong & Ting, 2012; Zembylas & Papanastasiou, 2005). More empowered and autonomous teachers can potentially be more hopeful and impactful and more likely to remain, blossom and thrive in the profession. These issues are thus important and consequential, and should be addressed in both teacher training and teacher development.

This research has theoretical advances and implications, challenging the traditional individualistic conceptualisation of teacher autonomy. In doing so, I propose in this research a focus on relationships and contexts, and accordingly, an updated conceptualisation of teacher autonomy. This research thus contributes to the literature about teacher autonomy by shifting its understanding to a more contextually and socially bound direction. This research opens and deepens theoretical discussions about how teacher autonomy is understood, and proposes ways to better sustain and support teacher autonomy in different contexts. The new conceptualisation of autonomy offered here can open a discussion regarding undesired and unjustified paternalistic interventions into teachers’ autonomy. As Nelsen (2010) pointed out, efficacy should not be a criterion to justify autonomous choices, nor should judgment or suspicions of others’ misinterpretation of the world be an incentive to impose one’s own motivations and decisions on them. The research at hand also has methodological implications, as the research design is intended to encourage teachers to explain what autonomy really means to them rather than to just reflect what was present in the previous literature. Giving teachers space to express themselves freely without a strict theoretical construct or specific interview questions proved to be useful in gaining genuine insight into
teachers’ perspectives (see Sub-chapter 2.1) and conducting innovative research, meaning that the aim of this research to provide deeper and broader ranges of teacher autonomy perceptions in different contexts was met.

Considering the use and all the implications of this research, perceptions of teacher autonomy in context should be explored in greater depth. Further research conducted on a broader scale would be useful to better understand the complex phenomenon of teachers’ perceived autonomy. Although this research does cover in-service mathematics teachers in both contexts, this discussion could be extended to pre-service teachers or teachers of other subjects who face similar high-stakes examinations. As such, this research could be of use in researching other contexts, other teachers and eventually other professions. The research at hand could also be furthered by taking the new conceptualisation of autonomy back to the Canadian and Finnish teachers to see if it could be changed in practice. It would also be interesting to observe if the reactions of teachers with an impaired sense of autonomy could become proactive if they acquired a different understanding of autonomy. In this sense, participatory research seems to be a natural next step: such research project could first assess how teachers understand and work with their autonomy, and then focus on how teachers could effect changes to their own autonomy while changing aspects of their work environment, themselves, to better address their students’ needs.

During the course of this research, I found that I could easily relate to all the teachers’ narratives, especially the Canadian ones, remembering the frustrations and “lack of real autonomy” I experienced myself as a teacher. I can now say, after being immersed in researching this topic for years, that it has truly changed my perspective on research, teacher autonomy, truth, relationships and the different work situations of teachers. Knowing what I now know, I would return to my classroom a very different teacher. With my frustration transformed into a will to be proactive and to re-establish positive relationships, I feel that I would be a much more satisfied—and therefore a better—teacher. Reflecting on my own growth during this research, I encourage teachers to expand their understanding of autonomy and to consider a relational conceptualisation of teacher autonomy which could change their outlook on their own work. I hope that by reading this research, teachers will be able to feel as trusting and confident in other teachers as I do, as aware of the ramifications of their relationships and contexts as I am, and as encouraged and empowered to be an agent of change in their own context as I have become, for their own benefit and that of their students.
List of references


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Appendices

Appendix 1. Information package with informed consent form for participants to sign.

**Interview consent form**

**Please consider this information carefully.**

**Purpose of the research:** To enhance the understanding of the experiences of teachers and teaching in high school, in Finland. The main topics inquired are self-confidence, autonomy and working life.

**What you will do in this research:** If you decide to volunteer, you will be asked to participate in one interview. You will be asked to tell about different questions. Some of them will be about your everyday life as a teacher. Others will be about your ideas and goals regarding teaching. You may have the option to answer a few questions in written, by email after the interview.

Participation involves being interviewed by Audrey Paradis, in an informal conversation where the audio will be recorded and used for academic purposes only. The interview may last 2 hours, or as long as you desire. Notes will be written during the interview and the written answers will be kept for the duration of the study.

**Time required:** The interview will take approximately 1-2 hours.

**Confidentiality:** Your responses to interview questions will be kept confidential. At no time will your actual identity be revealed. You may be assigned a random numerical code. The interview transcript, without your name, will be kept until the research is complete. It will be destroyed at the end of the research project if you wish. The data you give me will be used for my current research and thesis, and may be used as the basis for articles or presentations in the future. I won’t use your name or information that would identify you in any publications or presentations.

**Participation and withdrawal:** Your participation in this study is completely voluntary, and you may refuse to participate or withdraw from the study at any point. You may withdraw by informing me that you no longer wish to participate. You may skip any question during the interview, but still continue to participate in the rest of the study.

To Contact the Researcher: If you have questions or concerns about this research, please contact: Audrey Paradis, godree@hotmail.com, aparadis@student.oulu.fi.
Agreement

I volunteer to participate in a research project conducted by Audrey Paradis (M.Ed.), doctoral student from the Faculty of Education at the University of Oulu, Finland. I understand that the project is designed to gather information about mathematics teacher’s life and work in Finnish high school. I will be one of approximately 10-15 Finnish teachers being interviewed for this research.

My participation in this project is voluntary. I understand that I will not be paid for my participation. I may withdraw and discontinue participation at any time without penalty. If I decline to participate or withdraw from the study, no other participant will be told.

I understand that interviewees in this study might find the discussion interesting and thought-provoking. If, however, I feel uncomfortable in any way during the interview session, I have the right to decline to answer any question or to end the interview.

My participation involves being interviewed by Audrey Paradis, in a conversation that will be recorded (audio only). The interview may last 2 hours, or as long as I desire.

I understand that the researcher will not identify me by name in any reports using information obtained from this interview, and that my confidentiality as a participant in this study will remain secure. Subsequent uses of records and data will be subject to standard data use policies which protect the anonymity of individuals and institutions.

Agreement:

The nature and purpose of this research have been sufficiently explained and I agree to participate in this study. I understand that I am free to withdraw at any time.

Signature: ________________________________ Date: ________________________________

Name (print): ________________________________ Location: ________________________________
Appendix 2. The graph the teachers were asked to complete prior to their interview.

**Graph to fill before the interview**

Before the interview, if you can, I would like you to trace on the graph paper below a line that represents your level(s) of self-confidence over time. I would like to see how self-confident you felt as a mathematics teacher over the course of your whole career, up until now. If you can remember even before starting to teach how confident you felt, it is good also, as well as a projection in the future if you can foresee it.

I am looking for your self-confidence evolution, ups and downs, and the reasons behind them.

**Self-confidence levels over time.**

Confidence level

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Appendix 3. Interview themes for second data collection.

Three main themes and example of questions for each of the themes. In the first theme, there was no mention of autonomy by me. It often just came up. When teachers mentioned it themselves, then I used it also in the interviews.

A. Teacher’s professional background, self-confidence and working context
   - Tell about your experiences: How and why did you want to be a math teacher?
   - Tell about your CV (work life experience).
   - Tell the best and worst experiences you have had in your career.
   - Tell an experience that made you feel self-confident (or not) in your daily work.
   - Tell an experience you had where you felt pressure was put on you as a teacher? (Is there more pressure involved in being a math teacher?)
   - Tell me about your relationship with superiors, how much authority is in play? (if so, experience)? How is the relationship with parent, colleagues, students?
   - What experience made you feel respected and treated as a professional in your work?
   - Who do you rely on, who is your support system in your work?

B. Views and experiences of autonomy (when teachers have mentioned it)
   - Tell about experiences in your teacher career when you have felt autonomous (and NOT).
   - Tell me what professional autonomy is to you? How important is it for you?
   - Describe an experience where you could see autonomy was important to you? Where is it exerted? Where do you feel the most of it (or least) and describe an experience about it (areas)?
   - Tell me how you would evaluate the autonomy do you have now? enough? How much would you want, and how has it changed over the years, how should it be?
   - If it changed, tell me how has it impacted you? Can you tell me an experience you had about it? How did you feel (towards work, career, personal life and confidence)

C. Responses to change in autonomy (if time).
   - Tell an experience when you needed to get more autonomy.
Appendix 4. Nora’s graph of self-confidence over time.

Graphique avant l’entrevue

Avant l’entrevue, si vous pouvez, j’aimerais que vous traciez une courbe qui représente votre niveau de confiance en vous-même, en tant qu’enseignant de mathématiques au cours de votre carrière – du moment où vous étiez en formation (avant de commencer à enseigner) jusqu’à maintenant.

Niveau de confiance en fonction du temps

Niveau de confiance

Temps
Appendix 5. Themes of coded utterances.

Twenty-eight themes which emerged after the inductive coding of interview data from the second data collection:

i. Area of teaching
ii. Areas of autonomy (worst)
iii. Areas of autonomy (best)
iv. Autonomy granted by others
v. Autonomy over time
vi. Characteristics of principals
vii. Classroom management
viii. Curriculum expectations
ix. Definition of autonomy
x. Evaluation (of students)
xi. Look to the future
xii. Motives to be a teacher
xiii. Self-confidence
xiv. Surprising quotes about autonomy (almost nothing)
xv. To be improved
xvi. Trust
xvii. Work satisfaction
xviii. Negative experiences
xix. Positive experiences
xx. Pressures
xxi. Pressures towards examinations
xxii. Qualities of good mathematics teachers
xxiii. Relationship with colleagues
xxiv. Relationship with parents
xxv. Relationship with principal
xxvi. Relationship with students
xxvii. School atmosphere
xxviii. Talks about ease to approach teachers (Finland only)
Original publications


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Original publications are not included in the electronic version of the dissertation.

170. Suša, Rene (2016) Social cartographies of internationalization of higher education in Canada : a study of exceptionalist tendencies and articulations


172. Rönkä, Anna Reetta (2017) Experiences of loneliness from childhood to young adulthood : study of the Northern Finland Birth Cohort 1986


177. Pitkala, Suvi (2018) Touchable matters : reconfiguring sustainable change through participatory design, education, and everyday engagement for non-violence


182. Tuomisto, Temo (2018) Kansanopistopedagogiikka kolmessa kristillisessä kansanopistossa


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Audrey Paradis

TOWARDS A RELATIONAL CONCEPTUALISATION OF TEACHER AUTONOMY

NARRATIVE RESEARCH ON THE AUTONOMY PERCEPTIONS OF UPPER-SECONDARY SCHOOL TEACHERS IN DIFFERENT CONTEXTS