Teachers' Curriculum Making as Relational Practice: The mediating role of reflexivity and networks

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A thesis submitted for the award of the degree of Doctor of Philosophy in Education

June, 2021

Declaration

I declare that I have composed this thesis myself and that it embodies the results of my own research. Where appropriate, I have acknowledged the nature and extent of work carried out in collaboration with others included in the thesis.

Sinem Hizli Alkan

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Acknowledgements

Annecim, Elif'im ve babacim, bu tezi size adiyorum. Senelerce suren egitim maceralarima eslik ettiginiz, fedakarliklariniz ve her durumda sevginizi comertce gosterdiginiz icin size minnettarim. Iyi ki varsiniz.

Erkan'im; yol arkadasim; birlikte ciktigimiz bu zorlu doktora yolunun da sonuna geldik. Beni her zaman sevkatinle ve askla destekledigin icin sonsuz tesekkur ederim.

Abstract

This thesis explores teachers' curriculum making practices, with a particular attention to teachers' reflexivity and networks – two key topics that attract much interest in research and policy. The thesis adopts a mixed methods approach to explore curriculum making and to delve into a range of meanings and experiences attached to teachers' practices. Scottish and Welsh contexts, where teachers are seen as key change agents and where large-scale curriculum reforms have been undertaken, frame this research.

This study uses some theoretical and philosophical concepts derived from:

- Margaret Archer's Internal Conversation Theory
- Pierpola Donati's and Margaret Archer's work on the relationality of human actions
- Social Network Theory, and particularly Brea Perry's and his colleagues' work on egocentric network analysis
- Athasani Chalari's theory of the mediation between internal and external conversations
- Critical realism, and especially the work of Berth Danermark and his colleagues.

These concepts are blended to investigate the mediatory role of internal and external conversations in teachers' curriculum making as relational practice. Drawing from these conceptual tools, I offer an analytical framework to examine teacher mediation of curriculum making in different contexts.

This research was carried out with eight secondary school teachers; 6 from Scotland and 2 from Wales. Research activities involved:

- 16 full-day participant and non-participant observations (2 days in each school setting)
- 8 semi-structured interviews
- 8 internal conversation interviews
- 8 network interviews
- 7 participant-produced reflective diaries
- 8 Internal Conversation Indicator results.

Following a critical realist data analysis, this research offers three generative mechanisms that create the empirical events pertaining to curriculum making. First, teachers' modes of reflexivity, distinctive ways of projecting actions, based on teachers' concerns and by means of their environment, offer strong theoretical and methodological explanations of why teachers take

certain standpoints, follow particular reasoning processes, and act upon curriculum reforms in various ways. Second, relational assets (relational goods and evils) that emerge from teachers' curriculum making relationships offer explanations as to why certain practices might be enhanced or inhibited. Finally, the national and organizational context, more particularly, schools' formal organization, curriculum reform as a chain of organic interactions, and performativity culture, explain teacher mediation of curriculum making. The thesis concludes with some implications and suggestions for future research, and policy/practice.

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Chapter 1. Introduction

Looking back – The imagination of a doctoral research project

Figure 1.1. A kaleidoscope pattern and its hidden working mechanism (Encyclopaedia Britannica, 2021)

Teachers' curriculum making to me is like looking through a kaleidoscope,[1] which is dynamic and full of colours, shapes, patterns, and surprising irregularities. As well as finding it pleasingly beautiful to observe these ever-changing images, I am passionate about the ways in which they emerge, for example, depending on the light, the angle of the viewer and how the mirrors inside are positioned. It is the hidden beauty of mathematics and geometry that makes such unique images visible to the viewer. I invite you to join me on this journey into contemplating the dynamic complexities of 'kaleidoscopes' and investigate the mechanisms that generate such unique images.

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[1] The word is derived from the Ancient Greek words, kalos (beautiful), *eïdos* (form), and *skopeïn* (to view). https://www.britannica.com/technology/kaleidoscope

I believe there are a few epiphany moments that challenged my thinking, sparked my curiosity, and made me realize some of the properties of 'kaleidoscopes' which led me to pursue this doctoral research in the curriculum making field. Although memory is often illusional and we tend to create patterns between events and reinventing ourselves in retrospective thinking, I shall explain some of the realization moments here to show my personal motivations and subjective investment in this field (Finlay & Gough, 2003). The first anecdote is set in Finland, where I had my first year of teaching after I graduated as a mathematics teacher in Turkey. First of all, moving from Turkey, where there is a highly centralised and regulated education system, to Finland was in itself a transformational experience. I was fascinated by the level of flexibility that teachers had and became interested in how teachers interacted with the curriculum. Several conversations about how my colleagues understood and engaged with the curriculum, I believe, fired my interest in this field. More particularly, I was puzzled by one of my colleagues' analogy of the curriculum as being a 'very useful door stopper'. This struck me and I began thinking about how curriculum is embodied in teachers' practice in different forms, perhaps (hopefully) not always as a 'door stopper'. Nevertheless, it is a strong analogy to show how curriculum is often seen as a product. Returning to the kaleidoscope analogy, I was able to see a pattern emerging and decided to apply for a Master's in Curriculum and Instruction to examine that fascinating relationship between teachers and curriculum. As part of my Master's thesis, I examined teachers' needs for local curriculum making, which is a controversial topic for a centrist and nationalist education tradition such as that in Turkey. Consequently, I was even accused of attempting to divide the nation by some teachers. Although I still find it unbelievably absurd, it was another illuminating moment that helped me to see why certain patterns in that 'kaleidoscope' might emerge in Turkey, where certain political and social factors often suppress teachers.

Another anecdote comes from one of my former research participants from my Master's research. When I enquired about his understanding of curriculum, he secretly showed me a textbook[2] from a private publisher and asked me if I meant that. Again, my perception of curriculum as a rich and dynamic practice was challenged. On the other hand, I was fascinated with the fact that even in most centralised education systems, teachers often found ways to mediate their practices in unpredictable ways, which kept me wondering about the patterns, particularities and contingencies of that very practice. In other words, I was captivated, and still am, with the dynamic complexities of 'kaleidoscopes' and the underlying mechanisms that create various images. These

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[2] Compulsory national textbooks are published and distributed by the National Ministry of Education in Turkey.

wonderings and readings led me to discover the concept of teacher agency, and I met my first supervisor in a curriculum conference in 2015 and listened to his and his colleagues' work about an ecological approach to teacher agency (Priestley, Biesta & Robinson, 2015), which I could strongly relate to. I then developed a research proposal to look at teachers' curriculum making in Finland, Scotland, and Turkey to explore how teacher agency can be fostered and can result in various practices. Although I was not successful in obtaining funding for that particular project, it was such a privilege to find an advertised doctoral studentship that directly spoke to my passion, despite being in different contexts – Scotland and Wales.

Throughout this thesis, I shall illustrate curriculum making practices, revisiting the analogy of the 'kaleidoscope', with its own strengths and limitations, as with all analogies, of eight secondary school teachers in Scotland and Wales. I shall seek to explore these relational practices and offer conceptual and analytical tools to understand the mediating role of reflexivity and networks. To this end, this first chapter begins with the rationale for undertaking this research and then sets the original and updated research questions. I shall then introduce the key concepts which will be examined in greater depth in the following chapters. After explaining my positioning in this research, I shall end this brief introductory chapter by outlining the structure of the thesis.

1.1. Rationale

The depiction of teachers as curriculum makers has received much attention, especially with the advent of new discourses and practices of curriculum making in policy, practice and research. Historical and contemporary curriculum literature has illuminated different areas of this commonly articulated but rarely realized phenomenon (e.g., Clandinin & Connelly, 1992; Craig & Ross, 2008; Craig, 2020; Doyle, 1992; Osborn, 1997; Schwab, 1983). For example, much research has offered insights regarding the concept of teacher as curriculum maker (Clandinin & Connelly, 1992; Craig & Ross, 2008; Craig, 2010), what factors influence this process (Osborn et al., 1997; Huizinga, Handelzalts, Nieveen, & Voogt, 2015; Priestley, Biesta, & Robinson, 2015) and how teachers make curricula (Ben-Peretz, 1975; Mitchell, 2017; Shawer, 2010). Further, there have been some changes and developments in our understanding of curriculum which have subsequently influenced how teachers' curriculum making is depicted. There is a long journey from Bobbit's (1918) technocratic view of curriculum, as specified content to be delivered and measured, to, for example, Pinar's (2004) *currere*, which is about perceiving curriculum as complicated conversation, or Priestley, Alvunger, Philippou, and Soini's (2021) understanding of curriculum as social practice. This journey has witnessed several theoretical and practical crises (e.g., Schwab's (1969) call for the moribund nature of curriculum studies), which will be explained

in Chapter 3. To address such crises, there have also been various attempts to employ different theoretical lenses to make sense of teachers' curriculum making, such as social realism (Mitchell, 2017) and socio-material theories (Tronsmo, 2019). These have enhanced our understanding of different aspects of teachers' 'act of educational imagination' (Eisner, 1979, p. 47). We now hold a more sophisticated understanding and research evidence of the fact that teachers mediate their practices, even in the most prescriptive curricula, in different ways (Sivesind, Bachmann, & Afsar, 2013). However, we still have limited knowledge of how and why this mediation occurs in different and often unexpected ways. My research is concerned with this point and addresses it by focusing on two key theoretical constructs: reflexivity, and networks.

Reflexivity and networks are the two key constructs that will offer a window through which we might understand teachers' curriculum making practices in a nuanced way by focusing on internal and external conversations. Building upon seminal research on reflective practice (Dewey, 1933; Schön, 1983; Zeichner & Tabachnick, 1991), Archer's (2007) theory of reflexivity, which offers theoretical and methodological tools, is used to understand how teachers navigate their way through curriculum making and act in different ways through their internal conversations. Moreover, adopting a network perspective will complement reflexivity to obtain a wider perspective of teachers' conversations by exploring their external conversations about curriculum making. Teachers' networks are strong entry points to understanding educational change (Daly, 2010) and school improvement (Little, 1982), yet there is still scope to explore how these networks, including formal and informal connections, leave 'footprints' (Little, 2005, p. 281) on teachers' curriculum making practices.

This research was undertaken in two countries; Scotland and Wales. Since 2004, there have been large-scale macro curriculum making activities in both settings, with Scotland introducing Curriculum for Excellence in 2010, and Wales scheduled to introduce the new Curriculum for Wales in 2022. These new curricula present teachers as being the primary agents of change (Scottish Executive, 2006a; Welsh Government, 2020). There has been a strong emphasis in education policy (e.g., Scottish Government, 2008; Welsh Government, 2020) on the importance of teachers' professional learning communities, often accompanied by rhetoric around the need for reflective practice. There have been similarly strong themes in the literature (Prenger, Poortman, & Handelzalts, 2017; Watson, 2014), but often the focus has remained at a high level – emphasizing the importance of these issues without delving into the black box to explore the complex social processes that occur as teachers engage with one another professionally as they undertake curriculum making. This thesis addresses this issue by examining how teachers' reflexivity, the exercise of considering ourselves and the social environment to project future

actions (Archer, 2007), and ego-networks, personal networks that focus on the individual actors and their connections to other people (Bellotti, 2015), together play a role in mediating curriculum making practices.

As mentioned above, there were a set of previously defined research aims and questions in the call for candidates to undertake this research project. The key topic was to understand how similar national curricula are developed differently in Scotland and Wales, which intended to ask socio-cultural questions. Hence, the key research questions were previously outlined as:

1. What cultural issues – school traditions and teacher professional habitus – shape curriculum development in Scotland and Wales?

2. What are the effects of structural conditions (e.g., accountability systems) on teacher' curriculum making practices?

My imagination of this research has been well informed by these questions, and yet changed significantly (see Chapter 4) as a result of my engagement with the literature, my pilot study, and through my own internal and external conversations. In short, critical realism readings introduced me to Archer's (2007) theory of reflexivity, which is mainly about understanding how people mediate structural and cultural factors to make their way through the world. I was fascinated by the idea of utilizing her theory to understand the role of teachers' reflexivity in the mediation of curriculum making through a pilot study (Hizli Alkan & Priestley, 2019). It is a nuanced and helpful framework to understand teachers' actions, yet it presents only a partial understanding without also looking at teachers' external conversations and how both might interact. To achieve this, I utilized a qualitative network approach to delve into teachers' curriculum making networks. This thesis invites readers to explore eight secondary school teachers' conversations about curriculum making, by utilizing the aforementioned theoretical and analytical lenses, and to delve into the mediation process by looking at the underlying mechanisms that contribute to this.

Therefore, the aim of my research is:

- To understand the mediating role of reflexivity and networks in teachers' curriculum making practices through investigating underlying generative mechanisms

As informed by the research aim, this study proposed the following research questions:

1. How are secondary school teachers' curriculum making networks (ego-nets) structured and composed?

2. What are the structural and cultural dynamics in these networks and in what ways do teachers mediate these in curriculum making?

3. What are teachers' concerns and internal conversations regarding curriculum making?

4. In what ways do teachers' reflexivity (exercised in internal conversations) play a role in mediating curriculum making practices?

5. What are the personal, structural and cultural properties that emerge in curriculum making practices, in regards to the internal and external conversations?

6. In what ways does the mode of reflexivity play a role in the interplay between internal and external conversations about curriculum making?

7. What are the generative mechanisms that underlie secondary school teachers' curriculum making practices?

1.2. Introduction of key concepts

This research utilizes some key concepts derived from the literature and related methodological frameworks, some of which will be explained here. This list is not exhaustive, and a more extensive glossary is presented in Appendix 1.

Sites and actors of curriculum making

This research utilizes Priestley et al.'s (2021) heuristic framework to study curriculum making as social and relational practice that happens at different sites, practised by different actors. This theorization is helpful for my research as it acknowledges and operationalizes the complexity of curriculum making and also offers a conceptual and analytical tool to discuss the teachers' curriculum making in different contexts; Scotland and Wales.

Priestley et al.'s (2021) typology, which will be utilized to structure the next chapter and is explained there in more depth, offers five sites of curriculum making activities: supra, macro, meso, micro, and nano. In different sites, actors, such as government organizations and teachers, engage in different forms of activities and produce a certain form of curriculum. To summarize, supra curriculum making entails transnational discourses, practices, and frameworks that potentially diffuse into national education policy/practice. Macro curriculum making refers to producing frameworks, policy and regulations. Meso activities aim to facilitate schools' curriculum making practices that construct micro curriculum making. Finally, nano curriculum making involves activities that emerge from the interactions between students and teachers in

classrooms. My research is mainly situated within micro curriculum making sites and concerns teachers' practices.

Teachers' curriculum making

As informed by previous research (e.g., Clandinin & Connelly, 1992; Doyle, 1992; Priestley et al., 2015, Priestley et al., 2021), teachers' curriculum making is understood as relational, social, complex and multidirectional practice, in which teachers reflect, take decisions and enact policy at different sites using a variety of resources based on their concerns and priorities by means of their unique contexts. In the context of my study, my interest is on the relationality that comes from the intersection of teachers' internal and external conversations.

Reflexivity

Drawing from Archer's (2003, 2007, 2012) work, teachers' reflexivity refers to a form of reasoning process, which occurs differently in different people when considering themselves in relation to their social contexts and vice versa.

Ego-networks

The concept of ego-networks in this study is operationalized as teachers' personal networks, which are established to facilitate discussion about curriculum making for different purposes.

Critical realism

The philosophical framework adopted within this research is drawn from critical realism (Bhaskar, 1998) which sees the social world as being stratified by distinguishing what we can observe and the unobservable real world. One of the main arguments of this framework is that there are underlying mechanisms that generate the events we observe; investigating them should be one of the ultimate purposes of social research.

1.3. Positioning myself within my research

This section was previously named 'researcher identity', but I came to realize that this implies that identity is a singularity. In contrast, I have begun to see identity as a dynamic, fluid and multifaceted concept and there is a multitude of ways in which researcher identities operate at different stages of doctoral research. Peshkin (1988) talks about several situational subjective I's while doing research. To name a few of mine, my background as a mathematics teacher came into presence in the ways in which I construct meaning about pedagogy and make sense of other subject teachers' curriculum making practice. Second, my Master's in Curriculum and Instruction

manifests in my interest in curriculum research, and, again, in certain ways of understanding curriculum and its relation to instruction. Apart from a personal inventory of the knowledge and experience from my research degree, some interpersonal and institutional factors (Mauthner & Doucet, 2003) also influence how passionate I feel about teacher agency in curriculum making. Moreover, I came to realize how privileged I have been to access a wide range of scholarly work and dialogues on curriculum, especially in the UK context, which was not the case in Turkey, at least not to this extent. Third, having experienced different educational systems to varying degrees, including Turkey, Denmark and Finland, I bring different socio-cultural lenses to make sense of educational practice, such as comparing different cultural and social dynamics to make sense of why teachers may act in certain ways. This brings cultural sensitivity and also an acknowledgement of the complexity of education. Nevertheless, having nearly no background information about the contexts of Scotland and Wales was challenging. I would not be able to make sense of these contexts in such a relatively short period without the help of my supervisors, PhD friends and teachers who I met at different events. Thanks to my diverse support network, I came to realize that my naïve assumption of that Scotland and Wales are very similar contexts but operating within different timelines proved to be wrong. I am now impressed with the curricular questions and discussions I had in Wales and the unused capacity that Scotland has for curriculum making, which will be discussed in more detail later. Fourth, I had been teaching in the Initial Teacher Education at Stirling University as a teaching assistant during the early stages of my PhD and then as a lecturer after January 2020. These experiences enabled me to engage with a range of readings, as well as in curriculum making activities with my colleagues, who inspired me and nurtured my professional learning journey. For example, I was able to discuss my research with a range of audiences, including students, colleagues, teachers, and headteachers, which nurtured by own sense-making processes. Although taking up the lectureship post during the pandemic has been challenging, it has been a rewarding experience, both professionally and personally. Ultimately, my post enabled me to reflect upon my research in the grand scheme of a teacher education programme and extrapolating the 'so what' question from my findings, which will be explained in the final chapter. Finally, having Turkish as my native language meant that there were certain transition processes from thinking in Turkish to English during my doctoral research, which at times was daunting. For example, the concept of teacher agency did not exist in Turkish until recently (e.g., Gülmez, 2019). In summary, all these subjective I's constituted myself and had been active to a varying degree at different times throughout my research. Chapter 4 will explore this point in more detail by describing my reflexivity process and experiences during the life of this research.

Overview of the thesis

In this chapter, I have introduced the rationale for the study, my interest in pursuing this research, and some of the key concepts applied in the study. I also outlined the research questions and my position in this research. Chapter 2 aims to portray different sites of curriculum making and various discourses and activities to then situate macro and meso curriculum making actors and practices in Scotland and Wales. Further contextualising the study, Chapter 3 maps some of the fields in curriculum research, paying particular attention to teachers and the role of reflexivity and networks in the mediation of curriculum making. Chapter 4 discusses the methodology, including its philosophical and theoretical frameworks, research activities and methods employed and ethical considerations. Chapter 5 presents a summary of each participant by introducing their professional profiles, some background information on the context, and brief insights about their network and reflexivity.

The following four chapters set out the empirical findings, answering particular research questions. Chapter 6 employs a qualitative network analysis to answer the first and second research questions. This chapter describes the structure and composition of the teachers' curriculum making networks and offers a detailed discussion on what these relations mean to the teachers. This chapter provides insights as to how networks play a mediating role in the teachers' curriculum making practices and signposts potential underlying mechanisms, which will be discussed in relation to reflexivity later.

Chapter 7 investigates the teachers' reflexivity by using Archer's (2003) internal conversation theory and its methodological tool kit. It answers the third and fourth research questions. Here, the teachers' concerns about curriculum, and how they navigated their way through different structural and cultural factors are examined. This chapter begins to shed light on the mediating role of reflexivity in the teachers' curriculum making, which will be discussed in relation to networks in the following chapter.

Chapter 8 examines the interplay between internal and external conversations by combining network and reflexivity analysis. Here, I answer the fifth and sixth research questions. Chalari's (2007) mediation framework is adapted to illustrate teacher mediation of curriculum making in relation to reflexivity and networks. This chapter offers four vignettes to illustrate different curriculum making practices, drawing upon the practices of four teachers to illuminate the underlying generative mechanisms.

Chapter 9 examines the three underlying mechanisms in depth that Chapters 6, 7 and 8 revealed to answer the final research question. Here, a discussion on the synthesis of the findings is offered to compare them to previous research.

Chapter 10, the final chapter, presents a summary of the key findings as they have responded to the research questions. It outlines the original contributions of the research, the limitations of the study, as well as the implications of the findings and suggestions for policy, practice and research.

Chapter 2. Context of the Study

Chapter 2 Outline

This chapter presents an account of the policy routes, discourses, and activities at different sites in relation to education and curriculum, rather than an in-depth policy analysis. Here, I shall unpack different actors and forms of curriculum making activity at different sites of curriculum making by drawing upon Priestley et al.'s (2021) heuristic framing, as indicated in Chapter 1. I shall outline curriculum making at different sites, starting from supra curriculum making, and shall present the multi-stage and multi-tiered process of the policy context. This chapter aims to situate curriculum making practices in Scotland and Wales within a broader context.

2.1. Supra curriculum making

As introduced in the previous chapter, supra curriculum making refers to certain forms of transnational activities, such as producing international policy discourse and frameworks (Priestley et al., 2021). Different international organizations, such as the Organisation for Economic Co-operation and Development (OECD), the European Union (EU), the World Bank, and the United Nations Educational, Scientific and Cultural Organization (UNESCO), exert different influences on different countries. Educational reforms are justified or rationalized within various discourses, some of which are more influential than others. For example, the OECD, which is seen as one of the most powerful organizations in shaping national education policy, has identified some 'megatrends' shaping the world, in which education is deemed to be one of the key drivers to tackle the complexity and speed of change (OECD, 2019a, p. 13). In this first section, my entry point is the question relating to why particular educational reforms have gained momentum internationally, especially in the context of the curriculum; doing so, locates the Scottish and Welsh reforms clearly in their international context. I shall answer this question by examining three factors that have roots in different fields and are interlinked; namely, economic, social, and technological factors. These are often cited as the challenges that countries face globally (OECD, 2018a) and are key driving forces to reform curricula. I shall then explain how teachers' work is influenced by supra actors before examining macro and meso curriculum making.

2.1.1. Economic factors

The first factor, and perhaps most dominant, is the economic factor, with its *sui generis* discourses and agendas. The OECD and the World Bank, which is the biggest international funder of education (Mundy & Verger, 2016), come onto the stage in this respect to link education and economic transformations, mainly through the discourses related to the concepts of higher-order skills,

transformative competencies, human capital and productivity. Human capital is defined as the totality of knowledge, skills, and personal characteristics, such as the attitudes and values that people possess for enhancing productivity and economic growth (OECD, 2007a) to serve knowledge-based economies. This definition emphasizes the assumption that educational provision and policies 'manufacture' human capital, which then maximizes the wealth and economic growth of the country as a whole. Hence, modifications to such provision and policies, for example, developing the required higher-order skills and competencies for the students (e.g., creative thinking, meta-learning, etc.), should increase productivity levels and, to some extent, help them compete at the global economies more effectively (Bell & Stevenson, 2006). These skills and competencies, as well as being a 'learning compass' on how to design education, are provided by the OECD (2018a), drawing on large-scale data collection from several countries. The Programme for International Student Assessment (PISA), OECD's programme for collecting and measuring international data on reading, mathematics and science, is responsible for analysing these data and providing evidence for countries to influence their future actions (OECD, n.d.).

The Learning Compass 2030 identifies three forms of skills: cognitive and meta-cognitive skills; social and emotional skills; and physical and practical skills (OECD, 2019b), each of which are deemed to be required for responding to the demands of the labour market and remaining competitive at the global scale. This emphasis on supplying skills for the labour market through education is explicit in the OECD's recent publications (e.g., OECD, 2019b). One example of how economic factors influence curricula across nations is the introduction of 'financial literacy', as a curriculum area or a cross-curricular theme, in the aftermath of the global economic crisis (OECD, 2019c). Torres-Santomé (2019) brought a critical perspective to this way of influencing the curriculum. He argues that the OECD took advantage of the crisis (e.g., global economic recession) to establish their own economic agenda on education by creating new business opportunities through privatisation of some public sectors.

Moreover, there has been much academic critique of the key points that emerged from these policy documents and established routes and agendas associated with economic factors. Cheng (2009) calls this trend 'reform syndrome' and states that global competitiveness, economic transformations, international measurements, and the introduction of high technology, pushes many countries to reform their education for future effectiveness. These trends have often received criticism from different angles. For example, Ball (1999) has argued that these global discourses create an enterprise culture and a language to serve in the interest of certain groups and this leads to the commodification of education, meaning that education is primarily seen as a

tool for effective global competitiveness. This argument was captured in the Social Efficiency ideology of Schiro (2013), which suggests that curriculum should be outlined as measurable and observable achievement outcomes to meet society's needs (see Chapter 3 for a detailed discussion). This instrumentalized role of education is further critiqued by Biesta (2009), who argues that quantifying education by using particular measurements undermines the significance of the complex and social practices of education, which subsequently leads to valuing what can be measured instead of measuring what we value. These authors suggest that the role of knowledge and the meaning of education have been shifting as a result of their close relations with the economy and marketisation.

2.1.2. Social factors

Social factors, for example, the fluid nature of the world, the mobility of people (with or against their will), and their influence on education, have been considered in policy texts and processes. Yates and Grumet (2011) encapsulate such social changes in the following quotation:

> The world is never still; nevertheless, in the last fifty years we have witnessed profound changes: collapse of colonial powers and their domination; dissolution of the Soviet Union; globalisation of production, rapid dissemination of culture and information through communication on the world wide web; the development of international terrorism; all leading to new nations, new alliances, new enemies, new conditions for work and citizenship that influence curriculum today. (p. 5)

At the time of writing this chapter, the world is facing another profound change. The Covid-19 pandemic is raging across the globe and causing political, economic and social upheavals. Elements of education have been transformed, if not distorted, and the uncertainty as to when this might end remains. Various strategies have been developed to tackle the impact of this global crisis on teaching and learning, such as redesigning learning environments and assessments. Most countries began online teaching with an assumption that all students have reliable access to the internet and suitable technological devices as well as a supportive home environment to maintain learning. Here, the question of equity and social justice is brought to the table yet again. There have been some, and there will be undoubtedly more, attempts from global education policy to respond to these challenges, which consequently need to be translated into different socio-cultural contexts (e.g., OECD, 2020a).

Before the pandemic, the OECD (2018a) identified some social challenges facing societies, which require urgent action and adaptation. These include the growth of the global population,

migration, an increase of social and cultural diversity, widening inequalities, and an escalation of war and terrorism, especially in some parts of the world. We can observe how the OECD (2018b) responded recently to such challenges, for example, by looking at the introduction of 'global competency' as one of the competencies in 2018. While Scotland took part in the PISA global competence assessment, Wales decided to opt out, which led to some discussions around increased racism in schools.[3] Additionally, the United Nations (2015) published a broad policy agenda including some action plans and goals for the Member States to guide their national-level actions. In that report, inclusive and equitable quality education for all has been an emphasis in the context of educational policy. On the surface, it appears that the rhetoric in both the OECD's (2018a) and the United Nations' (2015) policy documents emphasizes the social aspect of education rather than framing educational policy to build solely economic capital. Of course, how these aspects, for example, social justice, are conceptualized remains open to debate. Lingard, Sellar and Savage (2014), for instance, argue that the global 'reworking' of education, subsequently followed by national policies and practices as well as data-driven technologies, has transformed social justice and equity into an area for measurement and comparison. They also suggested that the OECD's view on equity and social aspects of education, emphasizing their role in developing human capital and increasing productivity, about which PISA collects data, is contradictory to the fairness and inclusion aspects of equity.

2.1.3. Technological factors

The OECD (2018a) has suggested that technological advancements and the introduction of certain technologies (e.g., Artificial Intelligence) should be reflected in designing educational policy, as new economic models need to be developed. This is to re-emphasize the importance of developing human capital capable of tackling the speed of change in technological developments. There are two broad forms of integration of technology into education, each of which influences how countries shape their national education policy. The first refers to teaching technologies, and the second concerns the ways in which technology governs education, or, in Williamson's (2016) words, 'digital education governance'.

Starting with the first, the OECD (2019a) identifies the 'right' fields to develop the skills for the 'best labour-market outcomes' to be placed on the national education policy and the future targets of educational reforms. Transformative competencies for 2030 are offered to address the

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[3] See for more information: https://www.walesonline.co.uk/news/education/racism-culture-questions-schools-chiefs-14201567

influence of the new and rapidly changing technologies by integrating them in national curricula (OECD, 2019d). This can be linked to some projects being launched which value certain subjects more than others, such as the STEM (Science-Technology-Engineering-Mathematics) subjects. Following this, a question emerged as to whether technology, for example, should be taught as a subject or across the curriculum. As might be expected, the learning areas that PISA targets play a great role in this shift, too (reading comprehension/mathematics and science). This necessitated the establishing of policies about adequate facilities and skill sets of the teachers. Several multi-national companies emerged to serve these needs and changed the language about teaching yet again (e.g., Appleteacher, Google certified trainer).

The second form relates to technology being used as a policy instrument to govern education (Williamson, 2016). This is accomplished through the collecting of digital data from different sources, such as classrooms or social media, analysing them using quantitative measurements, and generating visualisations, often for comparison purposes. Williamson (2019) draws our attention to some of the technology companies that are now more interested in, and perhaps also more vocal about, education than before. He argues that such companies attempt to transform schools under their own economic, social and cultural models by, for example, incorporating different pedagogical practices based on extensive data generated by the software. By doing so, they are placing themselves as a 'techno-political centre of global education reform' by seeing education as a marketplace – and even more so during the pandemic (Williamson & Hogan, 2020). Therefore, the introduction of information and communication technologies brings with it some risks, challenges and consequences to teaching and learning. The extent to which this distinctive style of governing influences different countries varies. One example is that the enhancements of digital technologies increase the amount of data collected. This results in what Ball (2003) suggested almost two decades ago; a rise in testing and focus on performativity. Hence, 'the issue is not so much that these technological shifts are reinventing education but is instead the form and ultimate purpose of that invention' (Slater & Seawright, 2019, p. 379).

2.1.4. Governing teachers' work

The technologies of the global governance of education through international measurements and comparisons inevitably have an impact on teachers' work. This is because highly qualified and competent teachers are seen as being the key for 'excellent education systems', which need to respond to the rapid changes in the labour market, technology and society (OECD, 2017, p. 3). The OECD's first report about teacher policy was published in 2005, namely, *Teachers Matter*, although 'merely stating that teachers matter is one thing; whether teachers agree with what needs to be

done, is another' (Sørensen & Robertson, 2019, p. 87). The report outlines an international analysis of teacher policy and offers priorities and options for national policy (e.g., developing teacher profiles, providing schools with more responsibility). In addition to the OECD, the World Bank developed an accountability programme to shape teacher policy, entitled *System Assessment and Benchmarking for Education Results* (SABER-Teacher) without consulting teachers (Robertson, 2016). Similar to the idea that education creates the human capital needed to increase economic growth, teachers are also posited at the heart of educational reforms to increase student performance for effective global competitiveness. Some of the new expectations of teachers were outlined as having to meet the individual needs of pupils in diverse societies, develop transversal competencies, and help students to become lifelong learners, able to adapt to technological developments (OECD, 2017) on the basis of the data that the OECD generated. For example, the *Teaching and Learning International Survey*, launched in 2007, was used to collect data about teachers' work, the characteristics of their working environments, and their interaction with colleagues (OECD, 2020b). It is important to note here that Scotland and Wales, the countries of focus in my study, do not participate in any of the global teacher technologies mentioned here. However, it is still essential for us to see how supra activities operate, which may, ultimately, as a future possibility, pose questions or risks for teachers' curriculum making practices.

Drawing on the data that the OECD holds through comprehensive international testing and data collection, the *Education Global Positioning System* (GPS) emerged in 2014 to guide countries to shape their national educational practices. The three factors (social, economic and technological) outlined above, and more, appear in these policies to guide nations on their future steps for improving the quality of education. Robertson (2016) provides a critical account of the governing mechanisms of teachers' work, by drawing examples of some global technologies, which she elsewhere (Robertson, 2012) calls 'unmanned military drones', which:

> are powerful when they are able to reach deep inside national territorial borders, not only as data collectors but as agents at a distance, able to frame, direct, act and redirect without being physically present, [and accountable] … However, like any global positioning system (GPS) which guides the drone's actions, it cannot sufficiently see, or understand, the details that make the difference. (p. 23)

One of the core purposes of my research is to reveal these nuanced details of teachers' practices and to contribute to our understanding of why and how curriculum policies are enacted in various

ways in schools. The more nuanced our insights into this are, the stronger the opportunities will be for teachers to challenge and even resist such governing mechanisms.

Overall, supra curriculum making activities offer insights as to how to prepare young people with the skills so that they can tackle a variety of challenges, both in the workplace and in their lives, to create a better future for all and provide starting points or frameworks on how to achieve these. Some argue that such global policy routes and discourses and international comparisons may serve to create a unified Western norm which is filtered through different organizations such as the World Bank (Taylor & Henry, 2007). That said, it is important to examine macro curriculum making activities, with reference to the aforementioned policy routes and discourses, and explain key actors and practices before narrowing down to focus on Scotland and Wales.

2.2. Macro curriculum making

Priestley et al. (2021) explain that macro curriculum making entails 'questions about framing and regulation' (p. 17). Supra curriculum making exerts influences in discourses and practices on macro curriculum making, which consequently assisted the emergence of 'new' curricula internationally (Priestley & Biesta, 2013). The section below describes key facets of this new model of curriculum to provide a base for further examination of macro actors and activities in Scotland and Wales.

The OECD's (2018a) *Transformative Competencies* (creating new value; reconciling tensions and dilemmas; and taking responsibility) offered an overarching framework in designing teaching and learning. Additionally, the OECD identified several key constructs in designing a curriculum to develop these competencies, such as 'student and teacher agency, transferability, flexibility and engagement', which are worth examining, as they emerge in many international curricula. I shall start with the discourses on skills, capacities and competencies and continue with curriculum organization, the purposes of the curriculum, and the flexibility in the curriculum to cover a profile of the new forms of modern curricula that shape macro curriculum making activities.

Because there is recurring emphasis on supplying skills for the labour market in supra discourses, this is mirrored in the emerging curriculum reforms with the introduction of an array of skills, competencies and capacities. There is an international trend towards placing an emphasis on the 21st-century skills and competencies, for example, higher-order skills or transferable skills (Sinnema & Aitken, 2013). Many education systems (e.g., Australia, New Zealand, Scotland, Wales, British Columbia) set the curriculum purposes broadly by using such competencies (Yates, 2016) and/or situating them around 'big ideas' (e.g., Siemon, Bleckly & Neal, 2012). Such purposes

resonate in many of the new curricula. For example, in Scotland and Wales, there is a tendency to highlight: being active, informed and responsible citizens; the notion of lifelong learning; and being creative and critical thinkers (Scottish Executive, 2004; Welsh Government, 2017a). This indicates a transition from highly specified content, for example, a detailed description of learning outcomes, to a more flexible framing of the curriculum (Priestley & Biesta, 2013). Underlining attributes mirror some of the influences of the factors outlined in the first section about the supra discourses. For example, the notions of employability, individuality and enterprise appear in most of the documents. These purposes are also related to social justice. As outlined in the social factors, the equity agenda is also reflected in the new curricula internationally as a response to increasing inequities globally (Sinnema & Aitken, 2013).

The role of the subjects in organizing the curriculum is also another facet of the new curriculum. The framing of the subjects as *Curriculum areas* in Scotland and *Areas of Learning and Experiences* (AoLEs) in Wales provides examples of an international trend. There is much emphasis on the interdisciplinary nature of learning in the emerging form of curricula documents. The extent to which interdisciplinarity has been truly realized is, however, contested in Scotland (Education Scotland, 2020; Humes, 2013). Wales justifies the organization of subjects into AoLEs by suggesting that this promotes interdisciplinary, cross-curricular as well as subject-specific learning (Welsh Government, 2017a). It can be argued that some of the complex social and environmental factors, such as climate crisis or migration, have influenced the interdisciplinary agenda; as Beane (1997) explained in the '90s, these will require the combining of knowledge from different disciplines to attempt to address their complexity.

Both the explicit emphasis on skills, competencies and capabilities, and the curriculum organization around learning areas, have stimulated debate around the place of knowledge in the curriculum. The main criticisms include that the new forms of curriculum downgrade knowledge. More specifically, this has sparked debate about the difference between knowledge and skills and the distinction between academic knowledge and everyday knowledge (Yates & Collins, 2010; Young & Muller, 2010), with an ultimate aim to bring 'powerful knowledge' back into the curriculum, comprising the core of such criticisms (see Chapter 3 for a detailed discussion).

Another area where global education trends are reflected in the new curriculum is the flexibility offered to teachers. For example, one of the OECD's (2018a) documents about curriculum design cited 'teacher agency' as one of the key constructs to effectively 'deliver' the curriculum, which is practically an oxymoron. The extent to which teachers have spaces for flexibility (e.g., due to performativity agenda) and what support they are offered to achieve their agency is open to

debate, as will be examined in the next chapter. Now I shall examine Scotland and Wales respectively to present their macro curriculum making actors and activities and examine the influence of supra actors and events in each context.

2.2.1. Scotland – Macro curriculum making

The initial steps taken before the introduction of *Curriculum for Excellence* (CfE) (see Figure 2.1 for a summary of the main features) can be traced back to a *National Debate on Education* in Scotland in 2002 (Scottish Executive, 2002), which was undertaken as a result of increasing concerns around the previous *5–14 curriculum* (Scottish Office Education Department (SOED), 1993). This former curriculum had been enacted in Scottish schools after its introduction in the 1990s and it was perceived as being overprescribed by some (Baumfield, Hulme, Livingston, & Menter, 2010). Following the national debate, the first CfE document was published (Scottish Executive, 2004). This outlined four capacities as the purposes of the curriculum and as the principles of the curriculum reform agenda, and suggested reduced content and better transition between the stages in the curriculum and offered more choices to the students (Scottish Executive, 2004). These features, for example, framing the curriculum around capacities, resonate with the common characteristics of the new curriculum models mentioned above. The change was justified on the grounds of enhancing the economic performance of Scotland, growing diversity, the demands of changing employment and work life, improving health, reducing poverty, and fully recognising technological advancements, which all reflect the economic, social and technological supra discourses.

A curriculum framework to meet the needs of all learners 3 to 18
A schematic guide for curriculum planners

Values
Wisdom, justice, compassion, integrity

The curriculum must be inclusive, be a stimulus for personal achievement and, through the broadening of experience of the world, be an encouragement towards informed and responsible citizenship.

The curriculum: 'the totality of all that is planned for children and young people throughout their education'
- Ethos and life of the school as a community
- Curriculum areas and subjects
- Interdisciplinary learning
- Opportunities for personal achievement

Learning and teaching
- Engaging and active
- Setting challenging goals
- Shared expectations and standards
- Timely, accurate feedback
- Learning intentions, success criteria, personal learning planning
- Collaborative
- Reflecting the ways different learners progress

Experiences and outcomes set out expectations for learning and development in:
- Expressive arts
- Languages and literacy
- Health and wellbeing

- Mathematics and numeracy
- Religious and moral education
- Sciences
- Social studies
- Technologies

Curriculum levels describe progression and development.

skills for learning, life and work — literacy — responsible citizens — confident individuals — outcomes — **Learner** — experiences — successful learners — effective contributors — numeracy — health & wellbeing

All children and young people are entitled to experience
- a coherent curriculum from 3 to 18
- a broad general education, including well planned experiences and outcomes across all the curriculum areas. This should include understanding of the world and Scotland's place in it and understanding of the environment

- a senior phase which provides opportunities for study for qualifications and other planned opportunities for developing the four capacities
- opportunities for developing skills for learning, skills for life and skills for work
- opportunities to achieve to the highest levels they can through appropriate personal support and challenge
- opportunities to move into positive and sustained destinations beyond school

Personal support
- review of learning and planning of next steps
- gaining access to learning activities which will meet their needs
- planning for opportunities for personal achievement
- preparing for changes and choices and support through changes and choices
- pre-school centres and schools working with partners

Principles for curriculum design:
- Challenge and enjoyment
- Breadth
- Progression
- Depth
- Personalisation and choice
- Coherence
- Relevance

Arrangements for
- Assessment
- Qualifications
- Self-evaluation and accountability
- Professional development

support the purposes of learning

Figure 2.1. A summary of the main features of Curriculum for Excellence (Scottish Government, 2010, p. 4)

The macro actors mainly comprised the Scottish Government and Education Scotland,[4] which produced a series of publications. More detailed information was provided through *Progress and Proposals* (Scottish Executive, 2006a) and the *Building the Curriculum* (BtC) series, designed to guide practitioners on the curriculum areas, active learning, skills for work/life, etc., published between 2006 and 2010. Hundreds of experiences and outcomes (Es and Os) for each curriculum area were published in 2009 after an engagement process on the draft documents. The nature of

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[4] Education Scotland was created by merging Learning and Teaching Scotland (LTS) and Her Majesty's Inspectorate for Education in 2011.

these statements was argued to be used as assessment tools (Priestley & Humes, 2010; Priestley & Minty, 2013) which would be likely to drive the schools' engagement with curriculum work. *Benchmarks* were developed in 2016 to tackle this issue by outlining how (not) to use the Es and Os in curriculum making activities in schools (Education Scotland, 2016). A series of *Curriculum for Excellence Implementation Plan* documents was published by Education Scotland, starting from 2013–2014 until 2016–2017, to set the agenda for national guidance and support. Another macro actor is the Scottish Qualifications Authority (SQA),[5] which regulates and awards national qualifications. SQA publishes assessment support materials, including unit specifications and marking schemes, which mostly drive curriculum making in secondary schools (Hizli Alkan, 2021; Smith, 2019).

The diffusion of supra curriculum making practices to macro sites manifested itself broadly through the OECD publications. The OECD's (2007b) report, *Quality and Equity of Schooling in Scotland*, was published in 2007. This review aimed to examine the strength and challenges of the school system in Scotland and was conducted by international reviewers who benchmarked the performance of the school system to international standards as a contribution to ongoing debates. The PISA and national data were used as a basis to make decisions on the strengths and challenges of Scottish Education. The 'equitable' school system,[6] positive school principles, the 'impressive' capacity of Scottish primary schools, and testing the effectiveness of the curriculum and schools were noted as strengths of the Scottish schools (OECD, 2007b). With particular attention to curriculum, it was stated that, 'While there is no formal prescription of the curriculum, innovation appears to be modest' (OECD, 2007b, p. 16). As for challenges, the achievement gap, relabelled later as the poverty-related attainment gap (Ellis & Sosu, 2015), was highlighted as one of the major challenges. In fact, despite some improvements, this has remained the key ongoing target in the improvement agenda, and was repeated in the 2015 OECD report (OECD, 2015). Similarly, the number of young people leaving with minimal qualifications was one of the persistent challenges outlined in the new report.

The 2007 OECD report suggested increased flexibility through local authorities in schools while acknowledging that the 'promotion of change in schools is hampered by the vulnerability of schools to adverse perceptions and judgements based on examination results' (OECD, 2007b, p. 17). This report suggests that input regulation (e.g., flexibility in content selection) should be low,

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[5] For more information, see: https://www.sqa.org.uk/sqa/70972.html
[6] This referred to the performance levels of 15-year-olds as there was a small number of students in the lowest band.

while there needs to be greater transparency and accountability, signalling the need for strong output regulation (e.g., accountability and examination systems) prescription in aligning with the international trends (see Chapter 3 for a detailed discussion on curriculum (de)regulation). However, Raffe (2008) pointed out the risk of intensification of inequality and argued that some of the accountability practices may discourage curricular diversity and innovation. He also signalled the potential risk of downward incrementalism, that is, the influence of what happens in the later stages of education to the ones before (e.g., national exams at senior level shape Broad General Education).

The *Improving Schools in Scotland* report (OECD, 2015) was an important milestone, with subsequent developments illustrating the OECD's influence on Scottish Education. In that report, one of the main arguments was about the implementation gap; the gap between what was envisaged at macro sites and what has been translated in schools, and therefore a delivery plan for Scotland was published to address some of the recommendations of the OECD review (Scottish Government, 2016). *A Refreshed Curriculum for Excellence Narrative*[7] was published, partly to address some of the OECD's recommendations, and partly to provide interactive, accessible and clear content and guidance for practitioners. Another step taken following the OECD's report was that a *National Improvement Framework* was designed mainly to address the poverty-related attainment gap, where teacher professionalism was stated as one of six key drivers of improvement (Scottish Government, 2016). At the time of writing, the OECD has agreed to lead a review on how CfE has been implemented in classrooms (Scottish Government, 2020); this also could be read as being an impact of the transnational actor on macro curriculum making.

2.2.2. Wales – Macro curriculum making

A series of curricular activities in Wales has occurred intensively over the last decade (2010 onwards), due to the undertaking of a major curriculum policy change. The first steps can be traced back to unsatisfactory 2009 PISA results, which initiated a national debate on the future of education. The Welsh Government then introduced some policy changes, starting with *the Foundation Phase Reform* leading to, finally, a major curriculum change in 2016. Before the new *Curriculum for Wales* (CfW) was designed, *The Foundation Phase* reform was introduced in 2010 and revised in 2015, and concerned the statutory curriculum for all 3–7-year-olds. This reform, which was influenced by international evidence, marked an important shift in Wales, resulting in a change in the curriculum and pedagogy and the emergence of Welsh Dimensions, which signified

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[7] More details can be found here: https://scotlandscurriculum.scot/

a divergence from England (Taylor, Rhys, & Waldron, 2016). It is, therefore, important to briefly explain this reform, as the new CfW was built upon it, and because some argue that the outcomes of this reform should illuminate the potential challenges that enacting the new curriculum may face, such as inequalities in attainment (Power, Newton, & Taylor, 2020).

The United Nations Convention on the Rights of the Child (UNCRC) underpinned *the Foundation Phase* framework, which was introduced as a progressive, experiential, developmental framework to meet the diverse needs of children in Wales (Welsh Government, 2015a, p. 3). This type of approach aligns with the international trends presented earlier in terms of placing an emphasis on the individuals as well as drawing on constructivist theories of learning. Seven statutory Areas of Learning [8] were identified, including Welsh Language Development, Personal and Social Development, Well-being, and Cultural Diversity. These areas of learning were then changed to Areas of Learning and Experiences after Donaldson's (2015) report, which I explain in more depth in the following paragraph. Pilot schools were involved in the development and implementation stage of the new framework. Similar actions were taken in the subsequent CfW development work.

Here, it is evident that international comparisons, such as PISA, had an impact on macro curriculum making. Wales' PISA results in 2012 illustrated weaker performance compared to the other parts of the UK and were followed by similar results in 2015. In 2014, the OECD produced a report on the strengths and weaknesses of the Welsh Education system and provided some recommendations for system-wide changes and improvements (OECD, 2014). They identified the need for meeting the diverse needs of students, clarity in policymaking with strong implementation strategies, and, overall, the development of a long-term and inclusive education vision (OECD, 2014). Graham Donaldson, who previously engaged in the development work of CfE in Scotland, was commissioned by the Welsh Government to review the curriculum in Wales. The review report was published in 2015 (Donaldson, 2015) and all the recommendations were accepted, signalling a large-scale education reform (Welsh Government, 2015b). These recommendations included framing the curriculum around broad purposes, placing an emphasis on skills, in order to respond to emerging social, economic and personal challenges, with some links to the needs of the workplace and developments in technology (Donaldson, 2015). These resonate with the factors outlined in supra curriculum making.

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[8] More details can be found here: https://hwb.gov.wales/storage/d5d8e39c-b534-40cb-a3f5-7e2e126d8077/foundation-phase-framework.pdf

Welsh curriculum reform was undertaken in a collaboration between several stakeholders, including teachers, headteachers, local authorities, regional consortia, Higher Education Institutions and Estyn.[9] The Welsh Government, which oversees and regulates the development work, worked closely with the Pioneer Schools Network,[10] which consisted of around 200 volunteer schools (OECD, 2018b), to produce national and official curriculum requirements and supporting guidance. Higher Education Institutions offered research evidence and scholarship to the Pioneer Schools Network and the Welsh Government to improve different aspects of curriculum reform (e.g., the Progression Framework,[11] Hayward et al., 2018). Another independent body, Qualifications Wales,[12] which is similar to the SQA in Scotland, is responsible for the regulation of qualifications in Wales, have started a series of consultations[13] to support the new CfW.

The structure of the new CfW followed similar trends to those in Scotland, which were evident in the four purposes, the principles of designing the curriculum, and the six AoLEs (See Figure 2.2). In Wales, there are 27 *What Matters* statements under the six AoLEs, which act as the big ideas of the curriculum to be achieved by all learners (Welsh Government, 2020). Under each, there are several 'descriptions of learning' to provide support and guidance on learners' progression. There is an explicit emphasis on learner-centred approaches and an indication that Wales is following the international trend, which is moving away from traditional subjects and embracing a more flexible approach in organizing knowledge, progression and assessment.

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[9] See for more information: https://www.estyn.gov.wales/about-us
[10] There were originally two kinds of pioneers: curriculum and professional learning. The professional learning pioneer schools then became lead enquiry schools.
[11] See for more information: https://bit.ly/3rVmX8U
[12] See for more information: https://www.qualificationswales.org/english/about-us/introduction/our-role/
[13] See for more information: https://bit.ly/2Nhh2vU

Main elements of the curriculum	
The four purposes The Areas of Learning and Experience Cross-curricular and integral skills Mandatory curriculum elements Principles of curriculum design Statements of what matters Descriptions of learning Principles of progression	

The four purposes	The Areas of Learning and Experience
The curriculum should support learners to become • ambitious, capable learners, ready to learn throughout their lives • enterprising, creative contributors, ready to play a full part in life and work • ethical, informed citizens of Wales and the world healthy, confident individuals, ready to lead fulfilling lives as valued members of society.	• Expressive Arts • Health and Well-being • Humanities • Languages, Literacy and Communication • Mathematics and Numeracy • Science and Technology

Cross-curricular skills and integral skills	Mandatory curriculum elements
Cross-curricular skills: • Literacy, Numeracy, Digital Competence *Integral skills:* • Creativity and innovation • Critical thinking and problem solving • Personal effectiveness • Planning and organising	• Religion, values and ethics • Relationships and sexuality education • Welsh • English

Principles of curriculum design	Selection of curriculum content
Key principles are: • Local, national and the wider world perspectives • Coverage/range • Coherence • Rigour • Focus • Sensitivity *The curriculum must:* • enable learners to make progress towards the four purposes • be broad and balanced • be suitable for learners of different ages, abilities and aptitudes • provide for appropriate learner progression • include all six Areas • cover every statement of what matters • include the mandatory curriculum components of religion, values and ethics, relationships and sexuality education, Welsh and English • embed the mandatory cross-curricular skills • incorporate a range of assessment approaches which support learner progression provide choice for learners in what they study at 14 to 16 but still ensure every learner has learned in each Area	*Statements of what matters* These establish the big ideas and key principles to be covered in each Area. *Descriptions of learning* The expectation of the learners' progress within each what matters statements. *Principles of progression* • The ways in which learners make progress in their learning across the curriculum.

Figure 2.2. Main elements of the new Curriculum for Wales (Welsh Government, 2020)

2.3. Meso curriculum making

This section will deal with meso curriculum making activities and provide a few examples of actors that aim to support schools in recontextualising national curriculum policy (Priestley et al., 2021). There is a strong connection between meso and macro curriculum making, as meso activities often include operationalizing support that is established by governments. As Priestley et al. (2021) exemplify, Regional Improvement Collaboratives in Scotland are a good example of this connection, as they were established by the Scottish Government to facilitate schools' curriculum making. Hence, I shall focus on the type of activities that refer to supporting schools' curriculum making practices. Before explaining meso curriculum making in the two countries, I shall examine some of the international trends and discourses regarding meso activities.

Meso actors might include local authorities, various bodies of national governments, curriculum advisers, and textbook publishers (Priestley et al., 2021). Finland's district-level stakeholders, which include municipal actors and school staff for local curriculum making, is a good example here, as they play a mediatory role in translating the curriculum reform (Soini, Pietarinen, & Pyhältö, 2018; Sullanmaa, Pyhältö, Pietarinen, & Soini, 2019a). One of the main purposes of this meso activity is to establish a shared understanding among key education actors, including teachers, to achieve the purposes set in the core curriculum reform while considering local contexts. Another aim is to maintain coherence between what the core curriculum attempts to achieve and meso curriculum activities (Sullanmaa, Pyhältö, Pietarinen, & Soini, 2019b). There are certain quality assurance practices at the district level which offer rigorous roadmaps for schools to improve their practice. Differently, in Norway, meso activity is seen as a tool to 'deliver the national curriculum' (Mølstad, 2015) by providing extensive and detailed guidelines as to how to operationalize curriculum. Mølstad (2015) argues that such meso activity may inhibit teacher agency, whereas, in Finland, there is a greater opportunity for teachers to achieve their agency.

Overall, one of the key activities for meso actors is to be able to go beyond surface-level communication between key education actors in translating the core messages of curriculum reforms (Spillane, Reiser, & Reimer, 2002). Hence, sense-making seems to be an essential task for meso curriculum making activities (Soini et al., 2018; Spillane et al., 2002). Soini et al. (2018) emphasize the importance of both allocating time to key actors and also employing different strategies intentionally to undertake curriculum work, such as a variety of hands-on strategies (e.g., mapping the current status of schools or local area, analysing curriculum reform demands in light of the capacity at hand, etc.). Leat and Thomas (2018) add to this the importance of establishing relationships between meso and micro actors and how trust plays a key role in

mediating these relations. This reiterates the importance of considering curriculum making as relational practice. I shall now return to Scotland and Wales to provide examples of meso actors and activities.

2.3.1. Scotland – meso curriculum making

Enacting the curriculum reform, established as part of macro curriculum making activities in schools, has been one of the major problems in Scotland, similar to international contexts (Priestley, Minty, & Eager, 2014). Along with giving schools more flexibility came with the responsibility of planning and enacting the curriculum as well as increased output regulation. The importance of meso curriculum making capacity and support has been highlighted elsewhere (e.g., Priestley, Miller, Barrett, & Wallace, 2011). This was also as a conclusion of the OECD's (2015) review, which called for a 'strengthened middle' in Scotland.

Education Scotland acts as one of the key meso actors in Scotland, alongside the 32 local authorities and six Regional Improvement Collaboratives (RICs). Education Scotland aims to support quality and improvement and provide 'constructive challenge in new ways which will increase the pace of improvement' in Scottish Education (Education Scotland, 2012, p. i). They publish extensive documents and guidelines to facilitate curriculum implementation process. In one of these documents (Education Scotland, 2016), it was stated that 'there is currently too much support material and guidance for practitioners' (p. 1). This signalled that there have been 'over-bureaucratic' approaches to curriculum enactment, and a lack of easy access for teachers to make the required changes. It was also stated that 'teachers should be empowered to use the flexibility that CfE provides' (p. 1) to reemphasize the importance of teacher professionalism, aligning with international trends. The requirement to support teachers in this was acknowledged in the *Building the Curriculum* document series (Scottish Government, 2008) with a particular emphasis on *Glow*, a digital platform on which teachers could access several resources. Education Scotland also provided some 'practice exemplars' under the National Improvement Hub. Regular external inspections, which are carried out by Her Majesty's Inspectorate of Education (HMIe), and *How Good is Our School* reports following the evaluations were also published with an intention to support schools in curriculum implementation. Insight benchmarking[14] and the Broad General Education benchmarking tool[15] are the two mechanisms to monitor the development and attainment levels of students for targeting improvements for schools and local authorities

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[14] See for more information: https://www.gov.scot/policies/schools/national-improvement-framework/
[15] See for more information: https://bit.ly/3vUVPc8

(Scottish Government, 2019). This work is overseen by RICs and the Scottish Government. These tools aim to provide data for the schools about which students have what levels of success in different areas, and about the areas identified for improvements.

Local authorities are responsible for the provision of education, including the delivery of the curriculum according to the *Education (Scotland) Act 1980*. A recent and controversial change in 2018 required the participation of these local authorities in new RICs.[16] The purpose of this change was to improve education by addressing the attainment gap[17] in particular, and by working closely with teachers, supporting schools, and sharing good practices and targeted advice (Scottish Government, 2017). It can be also read as a response to the OECD's (2015) call for a 'strengthened middle operating through networks and collaboratives among schools, and in and across local authorities' (p. 10), which marks a shift in the kind of support and guidance for meso curriculum making. For example, one of the RICs established several networks in 2019, such as subject networks, a digital network, as well as a Research Schools network[18] to improve teaching and learning. These support mechanisms can be seen as a move away from technical support towards providing professional and expert support. There are also some independent teacher-led organizations and bodies (e.g., IDEAS, Learning for Sustainability Scotland, and Scotdec[19]) that aim to facilitate teachers' curriculum making practices, as well as partnership programmes that bring together different stakeholders, including teachers (e.g., Partnership Schools Scotland), and also some collaborations between university researchers and local authorities (e.g., School Based Curriculum Development through Critical Collaborative Professional Enquiry; see Priestley & Drew (2019)).

2.3.2. Wales – meso curriculum making

Four regional consortia, local authorities and the Pioneer Schools Network play a key role for meso curriculum making in Wales in supporting schools and realizing the vision of the new *Curriculum for Wales* (CfE). Regional consortia[20] were established in 2012 to support schools and local authorities for school improvement, and their work is overseen by a joint committee, including the local authorities (Welsh Government, 2015a). They have different structures (e.g., private companies as opposed to Joint Committees of local authorities in Scotland) and they operate

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[16] See for more information: https://bit.ly/3tPfaLE
[17] See for more information: https://bit.ly/2MYVqoh
[18] See for more information: http://www.seicollab.co.uk/research-schools.html
[19] These are third-sector organizations working with schools in Wales.
[20] See for more information: https://gov.wales/sites/default/files/publications/2018-03/the-national-model-for-regional-working.pdf

differently. Nevertheless, each consortium has organized various events to provide professional support and establish small teams for sustainable developments in the school context. For example, local authorities are responsible for funding allocations to schools and are accountable for school performance. The Pioneer Schools Network has engaged both within macro curriculum making by developing different elements of the curriculum (e.g., the core principles, the AoLE framework) and also in and across their school regions. These steps can be seen as a multi-directional interaction between different sites of curriculum making.

As for specific meso activities, both the Regional Consortia and The Pioneer Schools Network had a pivotal responsibility in developing the *Schools as Learning Organisations* (SLO) model as part of the *National Approach to Professional Learning* in 2017 (Welsh Government, 2017b). OECD, as a supra actor, influenced the development of this model and published a report to inform the next steps of SLO (OECD, 2018b). The report identified some less developed dimensions of the SLO model, such as developing a shared vision and establishing a culture of enquiry and innovation. Each consortium continued to provide a range of support, partly as a response to the report. For example, curriculum update events, training for school staff (e.g., change management), and the establishment of several teams (e.g., curriculum, collaboration and research) were implemented in supporting schools to engage with the rationale of the new curriculum and create the professional learning culture in schools. Some schools identified a curriculum leader who would attend the training and oversee the development of the curriculum in their schools. As a partnership, several strategy reports were published, such as the *Numeracy and Literacy Strategy* and the *Self-Improving System Strategy* (ERW, 2015).

The Pioneer Schools were responsible for disseminating information and gathering feedback in their regional clusters. Their work was supported by the Welsh Government, the Regional Consortia and a range of experts. Some other forms of networks emerged from these schools to refine the curriculum. For example, 16 Innovation Schools were identified to refine the curriculum guidance through their reflections on their engagement with the new CfW (Wavehill, 2019).

The role of Estyn, Her Majesty's Inspectorate for Education and Training in Wales, is to inspect the schools and provide advice and guidance to the Welsh Government about the quality of education. In the curriculum reform process, sharing good practices across schools and supporting teachers and other stakeholders (e.g., parents) became more prominent roles of Estyn from 2015 onwards (Welsh Government, 2015b). The Regional Education Consortia is comprised of four regions and coordinates professional support for teachers and other practitioners. Its members also work closely with the Pioneer Schools Network in designing the new curriculum and reviewing

their accountability system. Meso activities include regional consortia and local authorities providing school improvement infrastructure and support. The Regional Consortia also established some professional learning networks (e.g., digital pioneer schools), offered engagement sessions for practitioners and organized workshops to facilitate the translating of macro curriculum making activities.

Overall, some aspects of the organizational structure are similar to Scotland, with perhaps differences in the operationalization of some of the organizations. For example, this type of extensive partnership and engagement of teachers in macro curriculum making practices in Wales was not evident in Scotland (Baumfield, Hulme, Livingston, & Menter, 2010). Nevertheless, the location of Wales within supra curriculum discourses and practices is very close to Scotland's, as explained in the following section.

2.4. Current tensions, similarities and differences – Scotland and Wales

The discussion presented above, relating to the policy documents and some academic critique and pertinent empirical research, suggests several shared features and different characteristics of macro and meso curriculum making practices in both Scotland and Wales. Synthesising these will be helpful to understand the rationale for my research and to inform an understanding of the empirical findings, presented later, which draw from micro curriculum making in the two countries.

The commonalities include the influence of the key supra actors, such as the OECD, in shaping macro curriculum making. The supra discourses are also evident in both countries, for example, emphasizing the notions of skills, employability, equity, flexibility, and individuality. Both countries have devolved responsibility for their educational policy-making and there is a tendency to highlight distinctive Scottish and Welsh dimensions in the curriculum. It is important to note here that Scotland has a longer history of having curriculum independence compared to Wales. Similar to international trends, in both countries there is an emphasis on flexibility in school-based curriculum and the notion of teacher agency (e.g., Scottish Government, 2008; Welsh Government, 2019), as evidenced throughout. Before the new curricula were introduced, both Scotland and Wales had a prescribed curriculum, which means that the flexibility offered to teachers is novel. Although this is widely welcomed by teachers (Hughes & Lewis, 2020; Priestley & Minty, 2013), there are still enduring questions about the extent to which teachers use this flexibility and how the other components of the education system, such as the examination system, encourages them to use such flexibility. In Wales, the Pioneer Schools Network was

envisaged as an effective way to achieve this, as evident in some of the pioneer teachers' comments. For example, some of them stated that their experience has been a genuine engagement, where they felt that they led the process with support from an extensive collaboration (Crick, Priestley, & Hizli Alkan, 2019). While there is a celebration of the extent of autonomy and flexibility to a great extent for some, there are still concerns around the consistency and subsidiarity of the practices (Newton, 2020), as not all schools believed that they benefited from the Pioneer Schools Network (see Arad Research and ICF Consulting, 2018).

In terms of the curriculum structure, the two contexts share common characteristics. More specifically, the four purposes, the organization of the content, and the design principles are very similar, although the Es and Os in Scotland are more detailed compared to the Descriptions of Learning in the CfW. The first reaction to the introduction of the new curriculum has been widely positive in both countries, albeit with some cautions and concerns emerging thereafter (Hughes & Lewis, 2020; Priestley & Minty, 2013). However, there was a critical debate in Scotland on the extent of purposeful selection of the four capacities and values, and also the lack of theoretical and conceptual clarity (Priestley & Humes, 2010). While the four capacities have a strong potential as being useful starting points for curriculum making (Priestley & Drew, 2016), these concepts are argued to be ambiguous (Millar & Gillies, 2013), incoherent, and individualistic (Hedge & MacKenzie, 2016) and subsequently developed as slogans or a kind of mantra in schools (Priestley & Humes, 2010). Another tension regarding the curriculum discourses was around the lack of clarity and guidance on the meaning and operationalization of some of the terminology used, such as active learning and interdisciplinary learning (Priestley & Humes, 2010).

It is also important to note the structural and cultural differences between Scotland and Wales in relation to curriculum making. The steps taken for increasing curriculum making capacity and the way the curriculum is constructed seem to be the major differences in Scotland and Wales. The former includes conceptual debates around the key constructs of the curriculum, developing professional knowledge and skill sets for enacting the new aspirations of the curriculum, and engaging with other practitioners locally and nationally for collectively making sense of the curricular concepts and ideas. Wales established some support mechanisms (e.g., the Pioneer Schools Network) to achieve these, whereas, in Scotland, there has been a more limited level of development (Priestley, Biesta, & Robinson, 2015). This indicates that meso curriculum making support in Wales has been stronger, starting from the initial stages of curriculum making. More recently, the RICs have offered promise for development in this area in Scotland, albeit that there is limited empirical evidence of their contribution to teachers' curriculum making so far. The co-

construction of curriculum with teachers was not evident in Scotland. There were consultation activities, which included surveys, focus groups, and questionnaires. However, these offered very limited space to engage in in-depth discussions or pilot some of the new ideas, and they were thus not perceived as effective (Baumfield et al., 2010). As the reform in Wales is still at an early stage, some research identifies several potential risks for the future of CfW. For instance, Power, Newton and Taylor (2020) argue that the flexibility for designing the curriculum and facilitating a learner-centred approach risks exacerbating the inequalities that already exist in the system. Sinnema, Nieveen, and Priestley (2020) add accountability, professional learning and social network context as being the main areas for the focus of future curriculum work.

Conclusion

In this chapter, I have examined supra, macro and meso curriculum making actors and practices and have situated Scotland and Wales within these sites. I aimed to illustrate the interconnected nature of different sites of curriculum making and determine how these exert influences in the two countries while acknowledging their social and cultural differences. Overall, we see the emergence of the new models of curriculum in Scotland and Wales, each of which requires active involvement of teachers at different sites of curriculum making. My research concerns micro curriculum making by specifically looking at teachers' reflexivity and networks to understand how teachers mediate their practices. Hence, building upon the ideas established here, mainly drawing upon policy texts, I shall now turn to explore curriculum research and teachers' curriculum making, while focusing on networks and reflexivity.

Chapter 3. Mapping the fields

Chapter 3 Outline

The curriculum scholar Ivor Goodson (1994) stated that 'one of the perennial problems of studying curriculum is that it is a multifaceted concept, constructed, negotiated and renegotiated at a variety of levels and in a variety of arenas' (p. 111). This quotation indicates the challenge of undertaking a curriculum study, and also signals the necessity of drawing on the wealth of ideas within curriculum research from multiple literatures, [21] rather than relying on a single 'homogenous corpus' (Thomson & Kamler, 2011, p. 17). This chapter maps some of the fields of curriculum and explores the two key theoretical constructs of this research – reflexivity and networks – to address a gap in the literature. I shall commence by presenting a review of the intellectual terrain of curriculum research to then explore the notion of curriculum making by teachers. Next, I shall examine reflexivity and networks and offer some insights on the theoretical and empirical landscape of these constructs. Drawing upon the current state of knowledge, I note that there is a gap in understanding why teachers mediate curriculum making practices in different ways in relation to their reflexivity and networks, which my research will address.

3.1. Curriculum

This section portrays a historical background of the concepts of curriculum and curriculum making by drawing upon several literatures in this area. There is an extensive body of curriculum work, so it will not be possible, nor productive, to address the whole corpus here. Instead, the first section travels back to some of the seminal work in curriculum research, which indicates major changes over time in the way curriculum is understood and studied. I continue exploring a conceptual debate and highlight some of the curriculum scholars who have been influential in informing curriculum studies. The notion of curriculum making by teachers and teacher mediation of curriculum making will be examined, which will lay a foundation for discussing the role of reflexivity and networks. This section aims to situate my research within the broader scope of curriculum studies and to illustrate how my research addresses some empirical and theoretical gaps in curriculum studies research.

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[21] I acknowledge the interpersonal and institutional influence on my ongoing reflexivity (Mauthner & Doucet, 2003) here, and that my supervisors' work and research interests, and also the institutional context (e.g. what literatures are more visible than others), have influenced the starting points of these chosen academic texts that have guided my research, and how they engender particular ways of making sense of data.

3.1.1. Historical antecedents of curriculum

One of the early appearances of the word 'curriculum'[22] in education studies was with the publication of John Dewey's (1902) book titled *The Child and the Curriculum*. In the period since then, curriculum studies has observed several major shifts that marked the impact of socio-cultural and economic events and the way in which education was accordingly understood. For example, the post-First World War era and the rise of behaviourist understandings of education coincided with John Franklin Bobbitt's 'The Curriculum' book, which suggested a 'Scientific Method' to make curriculum. Bobbitt criticised the nature of learning objectives as being 'vague guesses' (1918, p. 10) and, instead, he offered a systematic and linear way of identifying skills and breaking them into some observable and achievable units to construct curriculum. Similarly, Tyler (1949) followed the objectives model and introduced *The Rationale*, which has been particularly influential on what curriculum making practices might entail. He proposed four fundamental questions about: (1) educational purposes, (2) educational experiences to achieve these purposes, (3) how these experiences would be organized, and (4) how they would be assessed. Tyler emphasized the important role of teachers to pursue these actions to construct curriculum, but in a rational and managerial way (Westbury, 2005). Eisner (1979) was one of the prominent critics of such a linear way of making curriculum, and he argued that the *Scientific Method* tried to 'technologize schooling and to reduce the need for artistry in teaching' (p. 270). Similarly, Stenhouse (1975) pointed out that the objectives model was being used 'as a stick with which to beat teachers' (p. 77). The transformative role of teachers in curriculum making was explored in more depth by, for example, Schwab (1969), Stenhouse (1975), Doyle (1992), and Clandinin and Connelly (1992).

Another turning point in curriculum studies, especially in the United States and Europe, was the launching of *Sputnik I* in 1957. Following this technological success of Russia, there was an increased impetus to reform science curricula in many countries, including the United Kingdom (e.g., the Scottish Integrated Science curriculum; see Akpan, 2017). It was soon recognised that solely reforming the curricula would invoke limited change at best and that curriculum reform should be accompanied by teacher development (Doyle, 1992; Eisner, 1992; Stenhouse, 1975). The *Technical Rationality* approach to curriculum was challenged and the complexity of curriculum change started to be acknowledged during the post-Sputnik era (Schön, 1983) in research, albeit that policy discourse remained mostly the same.

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[22] The etymological roots of the use of this word in English can be traced back to the 15th century in Scottish Universities. See: https://www.etymonline.com/word/curriculum

The complexity and social aspects of curriculum making attracted more attention with Schwab's (1969) call, indicating the crisis in the curriculum field and 'unhappy state and moribund nature' of curriculum studies (p. 1). He called for a *'renaissance'* (p. 1) of the curriculum, in which rich theoretical and empirical discussions would inform how we rethink curriculum. Schwab's (1969) work provides one of the pillars of my study, as he emphasized the need for providing a space for teachers to deliberate, debate and make decisions on curriculum-related issues. Schwab (1969) underlined the importance of bridging the theoretical with practical aspects of curriculum and offered a language for curriculum*, The Practical*, as 'curriculum in action treats real things: real acts, real teachers, real children, things richer and different from their theoretical representations' (p. 12). Moreover, he proposed that there are four commonplaces or desiderata for curriculum deliberations: teachers, milieu, subject matter and students (Schwab, 1973). Schwab emphasized the importance of the coordination of these four commonplaces and of paying equal attention to each. My research's entry point is delving into the teachers' work while referring to other commonplaces throughout.

Schwab's (1969) concerns were followed by the emergence of '*the reconceptualization'* movement, especially in North America (Pinar, 1978), which marked a shift from curriculum development to understanding curriculum through several lenses, including historical, political, institutional, autobiographical, and international (Pinar, 2004). This movement indicates a major shift in curriculum theory and research, one which broadened the scope of curriculum and also the ways to inquire into curriculum (Deng, 2018). One of the main features of the reconceptualization movement is to understand curriculum as an infinitive form, or *currere* (Pinar, 2004). Pinar argued that the method of *currere* would support self-reflexivity to understand one's life. Those using *currere* mainly draw from Dewey's work (1916), which will be discussed later. The reconceptualization movement focused on the way in which curriculum was being understood as 'complicated conversation with self and others' (Pinar, 2004, p. 37), instead of simply as a set of course objectives. Pinar's 'complicated conversation' provides another pillar in my research by helping me to choose the key theoretical constructs, offer new insights and possibilities for the future of curriculum work, and contribute to the international complicated conversations about curriculum. Nevertheless, the reconceptualization movement was criticised for expanding the curriculum field to many topics, such as environment, human existence, and politics, which left nearly no room for considering actual school curriculum practices (Deng, 2018; Hopmann & Gundem, 1998).

The development of critical curriculum theory continued with Apple (2019), who considered curriculum as policy text and explored the impact of ideology in curriculum, especially asking what and whose knowledge is most worth and who makes this decision. Social realist arguments (e.g., Young & Muller, 2010) posed another challenge to the reconceptualization movement and critical curriculum theory work, and named another type of crisis in curriculum; 'the reluctance of curriculum theory' to consider questions around knowledge (Young, 2013, p. 103). Although Young (2013) acknowledges the contribution of the reconceptualization movement in transforming the field from highly prescriptive models, the main argument is that curriculum is losing a theoretical focus while shifting to have a more political focus. Although Young and Muller (2010) also agreed on the process aspect of curriculum, their concern was a lack of emphasis on subject knowledge and an over-socialized concept of knowledge, referring mainly to the progressivist movement. To put it differently, they proposed that placing the focus only on the dimension of 'knowledge of the powerful' (who can access the knowledge) would diminish the importance of the origins of such knowledge; powerful knowledge (a type of knowledge that offers intellectual power).

The rhetoric of 'powerful knowledge', however, can be problematic at different levels. At the conceptual level, for example, Wrigley (2018) problematizes this by arguing that powerful knowledge in the *Social Realist* understanding – emphasizing academic and disciplinary knowledge and keeping a distance from everyday knowledge – fails to consider cultural capital and may act as a barrier for some parts of the population in becoming 'powerful'. This is mostly because everyday knowledge has not been considered, which social and cultural factors shape to a great deal. At the operational level, Priestley and Sinnema (2014) suggested that, given the blurred distinction between academic and everyday knowledge, modern curricula still place a strong emphasis on knowledge, yet the school level content selection may be driven by other pressures rather than considering what is worth knowing (e.g., Smith, 2019). Sinnema, Nieveen, and Priestley (2020) also note the distinction between knowledge and subjects, similar to Deng (2020), and suggest that subjects should be seen as a way of organizing knowledge, rather than the end products of education. This brings us to the question of how the purposes of education are established in the new forms of curricula.

Curriculum ideologies or orientations are helpful to understand different purposes of education and understandings of curriculum systematically. I shall introduce here Deng and Luke's (2008) and Schiro's (2013) work, as they capture the essence of different periods of curriculum work and are akin to each other. The following table (Table 3.1) illustrates the orientations and ideologies

they proposed. This comparison is also important, as Zeichner and Tabachnick (1991) have suggested that these orientations may be manifested in different reflective teaching practices.

Table 3.1. Curriculum orientations/ideologies

Deng & Luke (2008) curriculum orientations	Schiro's (2013) curriculum ideologies	Purposes of education, understanding of curriculum, the focus/priority of the reflection (Zeichner & Tabachnick, 1991, p. 9)
1. Academic Rationalism	1. Scholar Academic	Education is for developing intellectually through academic disciplines. Curriculum as content to induct students to inculcate disciplinary knowledge. The focus of the reflection is on the representations of subject matter to students to promote understanding.
2. Social Efficiency	2. Social Efficiency	Education is for meeting society's need and developing the required workforce. Curriculum as product consisting of measurable learning outcomes. The focus of the reflection is on the intelligent use of generic teaching strategies suggested by research on teaching.
3. Humanism	3. Learner-Centred	Education is for self-actualisation through following individuals' interests and needs. Curriculum as a democratic process. The focus of the reflection is on the learning, development and understanding of students.
4. Social Reconstructionism	4. Social Reconstructionism	Education is for social justice and fixing society's problems. Curriculum as process of promoting change. The focus of the reflection is on the social conditions of schooling and issues of equity and justice.

The Scholar Academic (or Academic Rationalism in Deng & Luke's (2008) work) and the Social Efficiency ideologies resonate with much of the early curriculum work. The latter, for which Bobbitt (1918) can be considered to be one of the prominent figures, suggests that objectives in curriculum should be stated as observable performance, indicating the ultimate aim of considering curriculum as a tool to create behaviour change to meet society's needs. Tyler's (1949) Rationale can be also seen as a projection of this orientation. However, Deng (2015) argues that this orientation may serve mostly the interest of corporations, government and businesses. Besides,

the Scholar Academic orientation implies a specific view of education, seeing it as a tool to provide scientific and disciplinary knowledge through subject matters, which is defined as one of Schwab's (1983) commonplaces for making curricular decisions. This was particularly prevalent during the post-Sputnik era through paying particular attention to developing science curricula. Learner-Centred Ideology, or Humanism, on the other hand, advocates individual growth and acknowledges the unique emotional, intellectual and social characteristics of each person, following a Deweyan perspective (Schiro, 2013). Hence, the purposes of education involve helping students develop as free individuals through self-actualisation (Deng & Luke, 2008). Finally, the emergence of critical curriculum theory can be linked to Social Reconstruction ideology (Schiro, 2013), which offers a social justice perspective to curriculum to address society's problems. Deng and Luke (2008) too argue that social issues and problems can act as starting points to organize curriculum, as outlined in Stenhouse's (1975) Humanities curriculum. Although the boundaries between these curriculum orientations seem to be distinct, a combination of different orientations of varying degrees can be found in individuals' orientations (Mitchell, 2017), which might change over time as teachers' career trajectories develop. Similarly, Zeichner and Tabachnick (1991) suggested that these orientations are not mutually exclusive and all of them need to be considered. This also resonates with what Schwab (1983) suggested, that considerations on the knowledge and subject matter should be balanced with paying attention to other commonplaces: teacher, student, and the milieu of teaching and learning.

There are still some concerns around the enduring crisis in curriculum studies. For example, Deng (2013, 2018) argues that curriculum theorizing is still in crisis, as it fails to achieve what Schwab's (1969) *'the Practical'* suggested in terms of bridging curriculum practice within schools and external theoretical discourses. He suggests that there is a way to combat this gap by connecting Schwab's (1969) *'the Practical'* with the European *Didaktik* tradition. *Didaktik* has been a prominent approach in Europe for thinking about teaching, especially in Germany and the Nordic countries, and also can be seen as a tool to ask curricular questions, such as what, why and how questions, which construct the core of reflective practice (Westbury, 2000). Hence, Deng (2018) argues that this combination offers a powerful tool to connect rich curriculum theorizing with educational and practical thinking. These arguments indicate a major shift in the way in which curriculum is understood as a more sophisticated concept and the importance of incorporating different hermeneutics of curriculum to enhance the richness of curriculum studies. Arguably, the last two decades have seen a renaissance of curriculum scholarship, especially after the introduction and debates surrounding 'the new' curriculum (Priestley & Biesta, 2013, p. 1). Current curriculum scholarship offers more nuanced answers to understanding curriculum, and

where and how curriculum is being made, which constructs the main pillars in the understanding of curriculum and curriculum making sites in my research (Deng, 2020; Priestley et al., 2021).

3.1.2. Curriculum as a concept

Apart from my personal motivations, which I unfolded in Chapter 1, I pay particular attention to different conceptualizations of curriculum for at least two reasons. First, various definitions reflect a trajectory of the changes in our understanding and how one positions self within the realm of curriculum. Moreover, Hewitt (2006) argues that multiple and often competing definitions of curriculum can be related to the changing nature of society and emerging ideas about what the future holds. Second, as Cornbleth (1988, p. 85) suggested, 'conceptions grow out of and enter into practice' and, consequently, each definition implies a particular kind of relationship between curriculum and teachers. Thus, the conceptual debate will reveal some assumptions about different aspects of curriculum and teachers as curriculum makers.

Reviewing the literature illustrated that any attempts to define and describe the concept of curriculum have been contentious and have led to further questions, which are informed by or result in different orientations or traditions in curriculum research. Nevertheless, definitions of curriculum can be categorised using Kelly's (2004) three models: curriculum as content; curriculum as product; and curriculum as process. One of the most common definitions of curriculum reflects the product aspect of curriculum, that is, 'the course to be run', with its etymological roots in the Latin word c*urrere*. This is a good starting point, because it reflects one of the most commonly cited perspectives, yet it obscures the complex nature and characteristics of curriculum. Looking at Bobbitt's (1918) perspective, he defined curriculum as a 'series of things which children and youth must do and experience by way of developing abilities to do the things well that make up the affairs of adult life; and to be in all respects what adults should be' (p. 11). This implies a view of the curriculum as an object to be delivered (akin to the 'door stopper' metaphor or the text book, as described in Chapter 1 on p. 16); in other words, a tool to enable knowledge transmission and also a set of experiences from which behaviour is altered. Cornbleth (1988) argues that this technocratic model decontextualises curriculum from the sociocultural environments and suggested that curriculum should be treated critically as a 'contextualised social process' (p. 89). Similarly, Stenhouse (1975), Schwab (1983), Eisner (1979), Elliot (1998) and Clandinin (2010) recognised this complexity and offered much more nuanced definitions by emphasizing social, practical and contextual dimensions of curriculum. For example, Eisner (1979) perceives curriculum as educational imagination underlying the unpredictable nature of curriculum practices, while Elliot (1998) asserts that curriculum can be perceived as an 'innovative

pedagogical experiment' (p. xii). These definitions reflect Kelly's curriculum as process model and highlight the important role of teachers in curriculum making as practice, rather than as a product. Moreover, as mentioned earlier, Pinar (2011) understands curriculum as a 'complicated conversation' (p. 1) with oneself and others, and reconceptualized curriculum as *currere* by paying attention to both the product and process elements of curriculum. Clandinin (2010), another key curriculum researcher that I draw upon, contextualises and elaborates on this complicated conversation by stating that curriculum is 'fluid, context-dependent, political, and moral both for the course of study and for the course of lives of children, teachers, families, and other members of society' (p. 247). Recent curriculum work by Priestley and colleagues (2021) accounts for the complexities, and social and multidimensional nature of curriculum by defining it as social practices that occur at different sites.

In addition to defining curriculum, another aspect that adds to the complexity of curriculum research is the question of what kind of curriculum we refer to. There are various forms of curriculum, including intended, implemented, and attained curriculum (van den Akker, 2003). Intended curriculum refers to the vision or rationale underpinning a curriculum (e.g., CfE documents), whereas implemented curriculum refers to how teachers enact and translate intended curriculum in their contexts. Attained curriculum represents how enacted curriculum was received by students as resulted in students' experiences and outcomes. In addition to what is taught in schools, Eisner (1979) argued that what is not taught is at least equally as important to look at. Hence, he suggested that all schools teach three curricula: explicit (the same as intended curriculum); implicit (characteristics about pedagogical decisions, physical and organizational structure of schools etc.), and null curriculum (content areas that schools do not teach).

Another pertinent question about curriculum is where it is made and by whom. Previous studies have illustrated the different layers of curriculum making as macro (national), meso (school), micro (classroom) and nano (individual) level (e.g., van den Akker, 2003) by following a systematic perspective framed around curriculum products. Similarly, Deng (2015) argues that there are three contexts where curriculum making occurs: societal; institutional; and instructional. The societal context would refer to van den Akker's macro level curriculum making activities, such as framing national purposes of curriculum, which is called 'the policy curriculum' (Deng, 2015, p. 79). The institutional layer would refer to meso curriculum making, whereas instructional would capture transforming curriculum into the classroom, or nano curriculum making. However, the multidirectional interactions across the levels are not sufficiently acknowledged. For example, it

is not clear how curriculum making activities take different forms and move between different layers. Also, there is an implicit assumption of the hierarchical nature amongst these levels. The recent work of Priestley et al. (2021) proposes a heuristic framework that I employed to structure and to introduce and discuss supra, macro and meso actors and curriculum making activities in Chapter 2. Their work is underpinned by a more nuanced understanding of curriculum making, by reframing van den Akker's (2003) work.
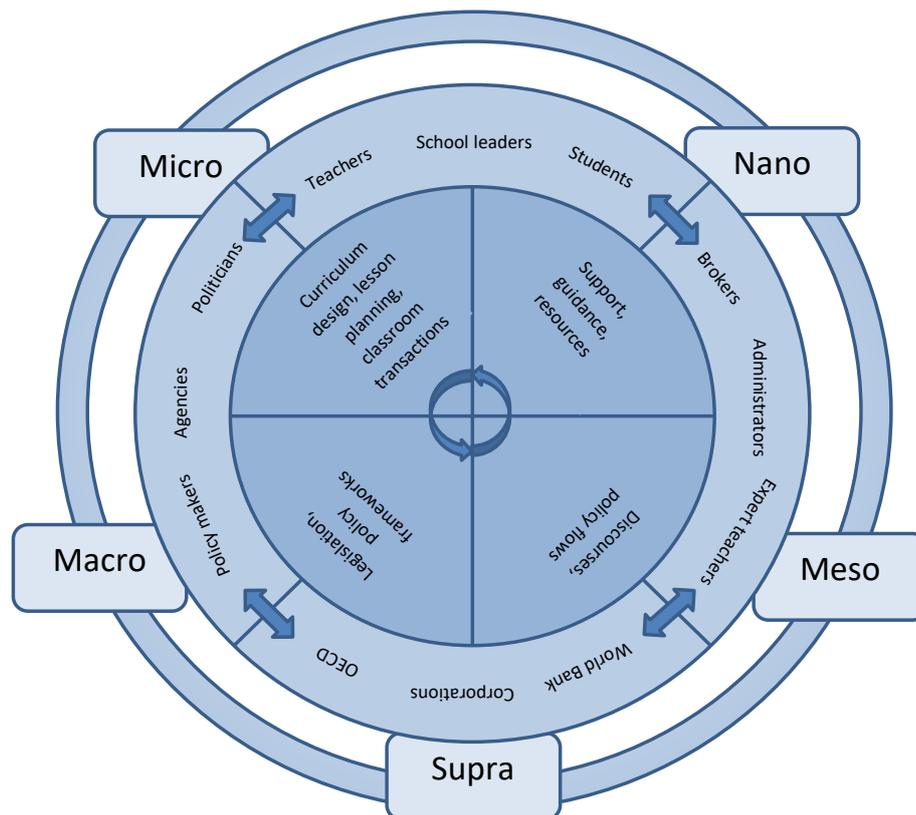
Figure 3.1. A heuristic framework for curriculum making sites, actors and activities (Priestley et al., 2021, p. 275)

Figure 3.1 illustrates the interacting sites for curriculum making, and the actors and their interactions. The model illustrates the fluid, dynamic and multidirectional interactions between different sites and actors which generate various curriculum making practices. My research is situated in micro curriculum making sites, where teachers are seen as the primary curriculum makers. Although there is much attention to the social aspects of curriculum in this heuristic, there is still scope for a deeper analysis of curriculum as relational practice. The relational aspect of curriculum requires investigation of how teachers construct meaning through their interactions with the self and others, and how they locate their understanding, make decisions and act upon these decisions. This relationality involves relations between teachers and curriculum, teachers and other social actors, and teachers and themselves, each of which construct an important proxy

to understand the mediation of curriculum making. Reflexivity and networks will be used to access this relationality. This perspective also requires placing teachers back in the heart of curriculum making practice. The next section will map these literatures.

3.1.3. Curriculum making by teachers

I have so far outlined that the nature of curriculum is always in its making and becoming as complex and multidimensional social and relational practice (Priestley & Philippou, 2018). The notion of teacher as curriculum maker has several historical roots, such as Dewey (1938), Schwab (1983), Goodson (1994), Doyle (1992) and, more significantly, Clandinin and Connelly's work in the 1990s. My research, by drawing on several seminal works in this field, understands curriculum making by teachers as a relational, complex, multidirectional practice, in which teachers reflect, make decisions and enact policy in different sites, using a variety of resources based on their concerns, priorities, and future projects in relation to their unique contexts. Although teachers as actors can act in different sites for different purposes, here I explore micro curriculum making, which refers to school-level practices that teachers undertake, while highlighting the multidirectional nature of the different sites (Priestley et al., 2021).

The history of the concept of curriculum reveals that the relationship between teachers and curriculum has witnessed several shifts. For example, looking back to early work in curriculum, the systematic and linear approach to curriculum has resulted in attempts to deskill teachers and turn them into technicians (Apple, 1986) or 'the agent of assessment' (Elliott, 1998, p. 19). This promoted discourses around 'teacher-proof' curriculum, meaning that curriculum specification becomes so detailed that it would 'produce' the same learning outcomes, regardless of the teachers' engagement with it (Taylor, 2013). Stenhouse (1975) disregarded this view and criticized that the notion of teacher-proof curriculum undermined the importance of the most valuable resource within schools – teachers. Goodson (1994) agreed with this view and suggested that we should embrace the notions of 'curriculum as social construction' (p. 111), echoing Cornbleth's (1988) position, and teachers as key constructers of curriculum. Similarly, Clandinin and Connelly (1992) underlined the strong relationship between teachers and curriculum and argued that 'the teacher is an integral part of the curriculum constructed and enacted' (p. 363), and called for an increased attention to the 'particularities of a teachers' practice' (p. 391) to understand that relationship. Moreover, Doyle (1992) explained curriculum making by teachers as 'the authoring of curriculum events' (p. 508), which is a continuous and dynamic process of reproducing and transforming content.

Nevertheless, historically there have been several educational interventions and a great deal of training to alter teachers' curriculum making practices in the direction of a prescribed curriculum (e.g., Olson, 1976). In recent years, we see that the 'new curriculum' model (Priestley & Biesta, 2013, p. 1) demands increasing input from teachers at different sites, while offering flexibility, including macro and micro. In order to explain this flexibility, I draw upon Leat, Livingston and Priestley's (2013) quadrant matrix about regulative mechanisms in the curriculum (Figure 3.2), as it offers a helpful base for discussing what may impede or enable flexibility.

Output regulation

Quadrant 1	Quadrant 2

Input regulation ← → **Input deregulation**

Quadrant 3	Quadrant 4

Output deregulation
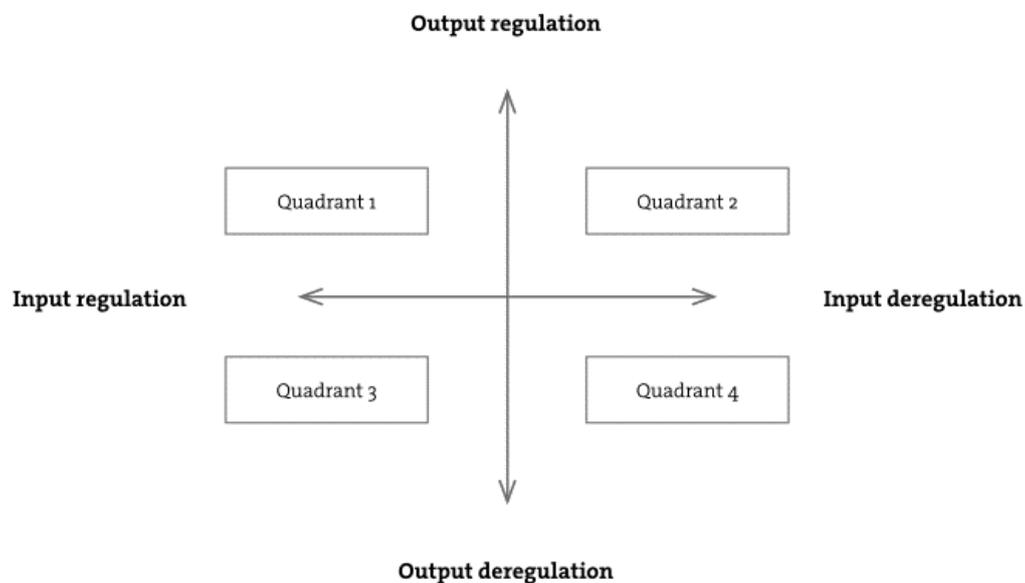
Figure 3.2. Curriculum (de)regulation (Leat, Livingston, & Priestley, 2013, p. 230)

Figure 3.2 shows input and output regulation in the curriculum. Input regulation refers to controlling/prescribing the content of the curriculum, whereas output regulation is about controlling the outcome, for example, through accountability practices, inspections, or national exams. Nieveen and Kuiper (2012) argue that such regulations could be inferred as a way of promoting equity across the system or providing uniformity. However, the strong input and output regulation (Quadrant 1) diminishes the room for teachers to act as agents of change. On the other side, strong curriculum deregulation (Quadrant 4) may be linked with teacher professionalism, teacher agency and curricular autonomy. However, in the absence of the clarity and adequate support for teachers, this may not result in successful and sustainable curriculum making (Pietarinen, Pyhältö, & Soini, 2019). In fact, it may undermine teacher agency by diminishing support and guidance provided by regulation (Kuiper, Nieveen, & Berkvens, 2013). Nevertheless, these are not the only options in regulative mechanisms. There is a range between

the two extreme ends. An emerging trend in modern curricula is often a combination of input deregulation with strong output regulation (Quadrant 2), which may hamper what is offered through the new curriculum reforms – the flexibility of teachers. Even in the case of input deregulation and broad framing of the curriculum as part of international trends, supra actors continue to 'offer' certain pedagogical approaches or best practices in education which are deemed to work effectively, perhaps to serve their competitive knowledge economy projects (Robertson, 2012a).

Various attempts have been made to explain the relationship between teachers and curriculum that reflected a broad continuum of different roles of teachers. These roles have included, but are not limited to, the teacher being a curriculum discoverer (Bobbitt, 1918), curriculum researcher (Stenhouse, 1975), experimental innovator (Elliott, 1998), curriculum planner (Connelly & Clandinin, 1998, as cited in Craig & Ross, 2008), and curriculum maker (Clandinin, 2010; Craig & Ross, 2008; Craig, 2020; Priestley et al., 2021). Some of these roles, although they imply strong responsibilities for teachers, remained as rhetoric; in Lawton's (2011) words, these fine slogans are 'rather hollow unless teachers are equipped with the necessary knowledge and skills' (p. 55). This call is echoed in the ecological approach to understanding teacher agency in curriculum making (Priestley, Biesta, & Robinson, 2015), which emphasizes the value of resources and support. One recent example from Finland concurs with this approach in suggesting that teachers' involvement in curriculum making is mediated by organizational factors such as the use of time and collaborative activities to develop agency (Heikkilä, 2020). All of these developments indicate that there has been an increased interest in teachers' curriculum making practices, especially after Schwab's (1969) call on the moribund nature of curriculum research, which was partly about the disconnection between academic and practical sides of curriculum. As such, Schwab (1983) introduced teachers as one of the commonplaces of curriculum making, which underlined the importance of teachers as curriculum makers. Although there is an increasing emphasis on the active role of teachers, even in highly regulated systems (Sivesind, Bachmann, & Afsar, 2013), we still have limited knowledge (Tronsmo, 2019) of how teachers mediate their curriculum making practice by drawing from internal and external resources in complex and unpredictable ways. I shall now turn to explore literatures on these issues.

3.1.3.1. Teacher mediation of curriculum making

In this study, teacher mediation is understood as the ways in which teachers navigate their way through making sense of curriculum policy/practice in relation to their beliefs, values, and concerns, and how they translate these ideas into various curriculum making practices. This

understanding is informed by several scholars in this field. To start with an early work, Dewey (1938) argued that teachers should be active in reconstructing the curriculum by facilitating the inquiry processes of students to acquire inherited cultural wisdom. He underlined that teacher mediation is central for the interconnectedness of personal and social growth. Schwab (1983), who followed Dewey's ideas, called the process of mediation 'artistic judgement' (p. 245), with numerous decisions on what and how to teach as well as how to make modifications when necessary. Osborn et al. (1997) referred to different strategies of 'creative mediation' and argued that teachers' individual factors as well as practical constraints may shape the mediation process. Goodson (1994) offered a similar view by stating that teachers' life stories have a paramount influence in the 'social construction' (p. 111) of a prescribed curriculum. Additionally, Stenhouse (1975) underlined the above strong connection between teachers and curriculum, by arguing that 'curriculum development must rest on teacher development and that it should promote it and hence the professionalism of the teacher' (p. 24) by highlighting a multidirectional relation.

Teacher mediation is also analysed in relation to what knowledge and skills teachers would need to make transformations in the curriculum. For example, Eisner (1979) proposed some skills, such as working with others and dealing with the complexities of curriculum deliberation, while Ben-Peretz (1975) focused more on different types of knowledge and emphasized the importance of content knowledge and curriculum making knowledge. These arguments have also been endorsed by more recent studies (e.g., Huizinga, Handelzalts, Nieveen, & Voogt, 2015), suggesting that teacher mediation would require a specific kind of knowledge.

Finally, Chalari's (2007) work on mediation is worth mentioning here, as I adapted her mediation theory in this research to construct a conceptual and analytical framework to examine the mediation of curriculum making (see Chapter 8). Chalari (2007) explains mediation in the following quotation, which resonates with the understanding of teacher mediation in this thesis:

> The individual person has the capacity and ability (as part of her personal powers) to respond critically to any social occurrence, and consequently to accept, adapt, deny, reproduce or merely forget it, although there are usually social bonuses or penalties associated with these different responses, depending upon social (and, specifically, situational) positioning. I suggest that the way that these processes take place is through 'mediation'. (p. 16)

Chalari (2017), in her later book, argues that this mediation is about trying to achieve a satisfactory state with social practice; curriculum making, in my research, therefore, it is about processing

situations by deliberating upon them in relation to ourselves and our social environments. Mediation operates in various ways for each individual, even in the same contextual circumstances, as we all have different mechanisms to evaluate the situations, for which the role of reflexivity becomes crucial. Hence, the extent of adaptations, such as actions being taken or compromises made, is varied (Chalari, 2017). One of the core aims of my research is to explore the ways in which teachers mediate curriculum making and what might be the reasons for their various actions. In order to address this question, reflexivity and networks are used as key theoretical constructs. Next, I shall present current academic conversations in the following sections and the role of reflexivity and networks in teacher mediation of curriculum making.

3.2. Reflexivity

Similar to curriculum, reflexivity is also a contested concept. For the purpose of this thesis, I shall mainly draw upon Archer's (2007) theory of reflexivity. I shall begin with Schwab's notion of the 'reflective practitioner' to lay the foundations of the role of reflexivity in curriculum making. I shall then introduce different modes of reflexivity, Archer's (2007) typology of distinctive ways of projecting actions, and present a synthesis of related research.

3.2.1. From Schön's reflective practitioner to Archer's reflexivity

The notion of reflection has a long tradition in education that emanated from Dewey's (1933) book called '*How we think*' and attracted much attention after Schön's (1983) work on becoming a reflective practitioner. It is important to note here that, although Schön's work was not about teaching *per se*, it has been applied extensively to teachers. Nevertheless, his work, which has attracted significant praise and criticism in education, offers a strong foundation to draw upon Archer's (2007) theory of reflexivity in the realm of curriculum making. It could be also argued that Schwab's work of *'the Practical'* (1969, 1973, 1983), a language for curriculum emphasizing the connection between academic and practical aspects of curriculum, provided foundations for Schön's arguments (Craig & Ross, 2008).

I shall start with a conceptual discussion around reflection and reflexivity to argue that, although they have sometimes been used interchangeably, these concepts are not the same. Reflection has been a focal point in much education research (e.g., Ryan & Bourke, 2013; Willis et al., 2017) and in policy rhetoric internationally. This can be explained by the changing role of teachers; from passive recipients of curriculum policy and reforms or curriculum deliverers, to active curriculum makers who require much more enactment of responsibilities (Zeichner, 1994) and personal deliberations by means of their social environment. This change can also be observed in policy

discourse. For example, in the curriculum documents of Scotland and Wales, there are references to reflection and reflective questions, although a clear definition of these constructs is not offered. Hence, there is an implicit assumption that practitioners already know what reflection means or that they understand it in similar ways. However, related literature illustrates that reflection is far from being an easily understood concept and an agreed definition is rarely found. And, although reflection has been cited as one of the 'cornerstones' (Feucht, Brownlee & Schraw, 2017, p. 234) of professional development and teacher education, Alexander (2017) argues that there is little evidence of any explicit definition found in the articles concerning reflection.

Following a similar path I explored in discussing the concept of curriculum, it is worth examining the origin of the word 'reflection'. Reflection derives from the Latin word *reflex*, meaning 'bend back' (Alexander, 2017, p. 308). In education literature, we see more elaborated definitions. For example, Dewey (1933) defined reflection as 'an operation in which facts on one side and meaning on the other are elicited through constant interaction with each other' (p. 165). Schön's (1983) work focused on that interaction and emphasized developing a feeling for practice and a better understanding of the situation to explain reflection-in-action. He stated that 'it is our capacity to see-as and do-as that allows us to have a feel for problems that do not fit existing rules' (p. 140). He also acknowledged the importance of social contexts as part of reflection and also how teachers bring their own beliefs and ideas about education. In Schön's (1983) words:

> As teachers attempted to become reflective practitioners, they would feel constrained by and would push against the rule-governed system of the school, and in doing so they would be pushing against the theory of knowledge which underlies the school. Not only would they struggle against the rigid order of lesson plans, schedules, isolated classrooms, and objective measures of performance; they would also question and criticize the fundamental idea of the school as a place for the progressive transmission of measured doses of privileged knowledge. (p. 334)

Building upon Schön's ideas, Biesta (2019) argues for 'existential reflection', in which teachers are seen as an integral part of the action. To put it differently, the type and extent of knowledge that teachers bring, and also their beliefs and ideas about what education is for, can be seen as critical elements of developing that 'reflective conversation with the situation', to which Schön (1983, p. 95) referred. This resonates with Pinar's (2004) notion of complicated conversation, discussed earlier, to understand curriculum, in this context to understand curriculum making by teachers. At the heart of Schön's (1983) argument, we see a criticism of the 'Technical Rationality' view, which perceives teachers as merely problem solvers and curriculum deliverers. This view does not

acknowledge wider contextual factors, such as problem-setting and how teachers construct meaning about that problem and perhaps pose new problems (Biesta, 2019). Biesta suggests that this argument is one of the significant contributions and value of Schön's (1983) work, as it depicts teachers' work as complex practice.

It is now important to differentiate reflection and reflexivity. Archer defines reflexivity as 'the regular exercise of the mental ability, shared by all normal people, to consider themselves in relation to their social contexts and vice versa' (2007, p. 4), while she (2009) offers a rather generic definition of reflection: 'the action of a subject towards an object, as in mathematician reflecting on an abstract problem' (p. 2). Despite the fact that there are multiple definitions of reflexivity in literature, Archer's (2009) conceptualization of reflexivity is not too distant from the aforementioned definitions of reflection. In fact, Archer (2009) herself stated that 'reflection and reflexivity have fuzzy borders and can shift from one to the other' (p. 2). Hence, Alexander (2017) questions the merits of the notion of reflexivity. According to Alexander (2017), reflection refers to 'the deliberation, pondering or rumination over ideas, circumstances, or experiences yet to be enacted, as well as those presently unfolding or already passed' (p. 308). Although this definition is very close to the conceptualization of reflexivity, it fails to acknowledge the involvement of oneself and the heterogonous nature of reflexivity (Archer, 2012). Archer (2007) argues that reflexivity involves reflection upon action and its consequences, and also people who engage with reflection as well. Similarly, Ryan and Webster (2019) argue that reflexivity involves oneself; how people perceive themselves in relation to their environment and how they evaluate their concerns, expectations and desires, considering their particular roles within that environment. Finlay and Gough (2003) maintain that reflection and reflexivity are two different poles of a continuum, which are distinct but intertwined. They add that the difference lies within the immediate, dynamic, continuing, and subjective self-awareness of the nature of reflexivity, whereas reflection is more thinking about an object. Hence, reflection and reflexivity differ in terms of the extent of complexity and acknowledgement of the social world as an open system where subjects make meanings. This view is in line with the philosophical framework of this study, which will be examined in Chapter 4.

The heterogeneous nature of reflexivity, according to Archer (2012), means that, even though we all engage in reflexivity, the way in which we project actions based on our concerns may vary in different contexts and times. She also argues that the texture of our internal conversations is different, which generates the heterogeneity of reflexivity. It is, therefore, a helpful concept to explore why teachers act in certain ways. This view resonates with Zeichner's (1994) call, made

more than two decades ago. Zeichner suggested that, instead of merely focusing on teachers' individual reflection, we should be researching for different kinds of reflexivity and for structural and cultural factors that inhibit or nurture reflexivity. Similarly, Connelly and Clandinin (1988, as cited in Craig & Ross, 2008) stated that 'the more we understand ourselves and can articulate reasons why we are, do what we do, and are headed where we have chosen, the more meaningful our curriculum will be' (pp. 290–291). As mentioned before, Zeichner and Tabachnick (1991) proposed that different orientations manifest in different reflective teaching practices focusing on certain priorities. Although Schön's work is still valuable today, albeit with some criticisms (e.g., Eraut, 1995), Archer's (2007) theory offers a much more nuanced approach, which is helpful to investigate teachers' reflexivity through internal conversations, to delve into the richness of teachers' practices. Archer (2007) introduced this concept of internal conversation, which is an individual property that helps to exercise reflexivity. Internal conversations are inner dialogues (hereinafter these terms will be used interchangeably) with oneself in relation to the individual and the social environments, in order to navigate one's world (Archer, 2007).

Another reason why Archer's (2007) theory of reflexivity is powerful lies in how she operationalized the concept and offered methodological tools to tackle the challenges of investigating reflexivity. Ten mental activities – mulling over, planning, imagining, deciding, rehearsing, reliving, prioritising, imaginary conversations, budgeting and clarifying – are proposed by Archer (2007) to investigate reflexivity through qualitative interviews. A further data generation tool was the Internal Conversation Indicator, which was developed to capture people's marked dominant mode of reflexivity (Archer, 2007) (see Chapter 4 for details). Caetona (2014), however, argued that Archer (2007) did not adequately address the issue of socialization, which is considered to be performed through external conversations that can be investigated through networks. Although this might be true for Archer's (2003, 2007) early work, her recent collaboration with Donati (a relational psychologist) illustrates that she has started to attend to external conversations and the link between reflexivity and networks (Donati & Archer, 2015). Because this field is relatively new, my research will contribute to understanding the nuanced features and dynamics of the interplay between reflexivity and networks within the context of curriculum making.

3.2.2. Modes of reflexivity

Archer (2003, 2007, 2012) proposes four distinctive modes, in which reflexivity is exercised, to reveal our particular ways of mediating personal, social and cultural enablers and constraints. Each modality explains different ways of projecting our actions based on our concerns and priorities.

Chalari (2007, 2017), from whom I adapted a mediation theory, explained that these modes can help us to understand why each individual evaluates and responds to external situations in various ways, by using certain mental activities. Similarly, modes of reflexivity can be used as a conceptual framework to understand personal and social identity development (Luckett & Luckett, 2019) as well as social mobility (Kahn et al., 2017). In this research, my focus is on exploring and explaining why teachers' curriculum making practices manifest in certain ways, through employing modes of reflexivity as one of the theoretical lenses. It is crucial to note here that these modes are not stable or deterministic and cannot be reduced to fixed personality types. In fact, Archer (2003) states that there might be 'flashes of different reflexivity modes' (p. 179) and people need to weigh the affordances and limitations of exercising one over another within their unique circumstances. This caveat is also applied throughout my research. The development of any mode of reflexivity is the product of the interactions of social context and personal concerns (Archer, 2012) and the empirical chapters in this thesis will attempt to illustrate the underlying mechanisms of such interactions, instead of solely labelling teachers with certain modes of reflexivity.

Archer (2003) argues that the ultimate aim of having internal conversations is to achieve a *modus vivendi*, which is understood in my research as having a sustainable and satisfying sense of success in curriculum making as perceived by the individuals. The establishment of *modus vivendi* involves 'continuous reflexive deliberation, practical experimentation and a great deal of self-learning' (Archer, 2003, p. 191). I shall briefly explain each mode of reflexivity before exploring related research findings in the literature and the role of reflexivity in curriculum making.

Communicative reflexivity

Communicative reflexivity is one of the four distinctive modes, according to Archer (2003, 2007, 2012), that manifest certain features about how people navigate their way, in this case, described as 'thought and talk'. For example, one prevalent characteristic is the inconclusive nature of internal conversations, unless they are shared with one's dialogical partners. Hence, the communicative reflexivity mode brings about inter-personal conversations to resolve issues rather than relying solely on inner dialogues. These dialogical partners tend to include trustworthy and long-lasting relationships with similars and familiars. Because this mode calls for external conversations for confirmation and/or affirmation, close relationships, especially in the work environment, may be sought. The confirmation and affirmation may be projected extensively, even in the spoken language (e.g., isn't it, doesn't it?).

As Archer (2007) indicates, each mode of reflexivity has a special relation with structural and cultural constraints and enablers. Communicative reflexivity can enable contextual continuity, but it may also limit mobility in terms of professional progression. This is mainly because, by exercising communicative reflexivity, there is a sufficient degree of self-satisfaction and contentment with the *modus vivendi,* which does not offer enough incentives for people to take any risks. Due to this comfort, the currency in exercising communicative reflexivity is inter-personal fulfilment.

Autonomous reflexivity

Unlike communicative reflexivity, autonomous reflexivity manifests in the lonely exercise of inner dialogues which are not required to be supplemented by external conversations to lead actions (Archer, 2007). Autonomous reflexivity mode marks self-sufficient and self-contained ideas which can lead to making self-judgements through independent thinking. If there is a goal to be achieved, individual responsibility will be taken. Another underlying feature of this mode is that the assumption of knowledge of these unique circumstances can only be known by people themselves. Hence, autonomous reflexivity can bring about self-knowledge, and therefore, self-sufficient and self-confident mental judgements.

Archer (2007) argues that internal conversations in this mode are utilized for quality control and, in fact, one of the contextual factors that triggers the activation of autonomous reflexivity is performance indicators. Hence, social enablements, such as promotions and performance achievements, may be prioritised in the activation of this mode of reflexivity. Their special relation with the social context is described as contextual incontinuity, where strategic actions can be taken for social mobility. The selective, mostly instrumental, social relations can be one of the features of practising autonomous reflexivity, depending on people's concerns and priorities. Exercising this modality can be seen as making things happen, and, therefore, task-orientated actions can manifest in activation of this mode of reflexivity.

Meta-reflexivity

This modality is exercised by every normal human occasionally (Archer, 2007). The exercise of this mode requires deliberating on one's actions reflexively by questioning and answering by oneself, in other words, through self-interrogation. Practising meta-reflexivity constitutes a continuous analysis, monitoring and interrogating one's objective circumstances, which are always subjective and fallible. Unlike autonomous reflexivity, where the technical and concise articulation of concerns are likely to be observed, this would be relatively difficult to observe in the practice of meta-reflexivity, due to the continuous self-monitoring. Hence, the achievement of a stable

modus vivendi appears to be challenging when compared to exercising autonomous reflexivity, for example. When people exercise meta-reflexivity, especially in relation to social context, this is described as contextual unsettlement, as meta-reflexivity brings about reaching one's ideals, regardless of the potential consequences. Again, unlike in the case of autonomous reflexivity, in meta-reflexivity, performative achievements or performance indicators are rarely the focus of mediating actions, unless they match with one's ideals. Meta-reflexivity manifests itself through seeking the right actions instead of strategic actions to reach instrumental goals. In Archer's (2003) words, 'pragmatism can never be the resort of the meta-reflexive' (p. 272).

External conversations might complement meta-reflexivity's entailment of searching for ideal right actions, although the idiosyncrasy of other people's values, priorities, and concerns is acknowledged. While being 'embattle(d) with structural limitations' (Archer 2007, p. 302), friendship from a rather smaller group can be sought, with people who are deemed to be on the same wavelength. For example, Archer (2012) found that this modality was mostly exercised in people working in education and welfare services. Given the increase of performance indicators in such sectors, there is often a misalignment between different sources of concerns and people's value commitments. Based on Archer's empirical research about meta-reflexivity, the dominance of commodification may result in 'contextual incongruity', which entails actors continuing to seek different ways to achieve the *modus vivendi.*

Fractured reflexivity

The exercising of these three forms of reflexivity enables people to guide their actions, even in different ways. In contrast, this power of personal reflexivity is somewhat suspended for the people demonstrating fractured reflexivity (Archer 2003, 2007, 2012). This mode manifests in inner dialogues, which often do not lead to purposeful actions as the matters are usually beyond one's control. Archer's empirical research (2008) found that the practising of fractured reflexivity often occurs due to adverse situations, which disable people from initiating a course of action for attaining a sustainable and satisfactory *modus vivendi.* Fractured reflexivity is therefore closely connected to inner dialogues that usually go round in circles and are inconclusive and may be distressing.

Exercising fractured reflexivity elicited some comments in Archer's (2008) interviews, such as 'I don't know' or 'Take it as it comes', which she thinks imply a lack of will to act upon their concerns, unlike practising autonomous reflexivity. The lack of density and continuity in external conversations can be observed as a result of practising fractured reflexivity, which may result in

the feeling of being in the cross-fire of structural and cultural constraints. As Archer argues throughout her work, these modalities may change due to the alteration of the subject, particular types of concerns, or people's contextual circumstances. Hence, inner dialogues in fractured reflexivity may bend towards different modalities, which imply an impeded or displaced mode of reflexivity.

In addition to Archer's (2007) modes of reflexivity, some research propose alternative typologies. Caetano (2017) argues that Archer's (2007) typology is partial and, therefore, she added different parameters (e.g., socio-economic background, reflection on the past) to categorise five different forms of reflexivity, and underlines that social origins have a big impact on reflexivity, in contrast to Archer's suggested modalities. Raffo, Forbes, and Thomson (2015), and Porpora and Schumer (2010), join Caetano in proposing new terminology to offer an alternative to Archer's (2007) typology. Raffo et al. (2015) suggest a model of ecologies of educational reflexivity and considered different modes of reflexivity as sub-ecologies. Porpora and Schumer (2010), on the other hand, exacerbate the conceptual confusion, referring to 'self-reflection' and transforming Archer's typology by offering four modes of reflexivity. Some research also suggests that there are 'auxiliary modes' (Lord, 2016) besides the dominant modes of reflexivity. This means that the activation of an auxiliary mode still exerts powers on the individual, albeit much less, when compared to the dominant mode of reflexivity. Ultimately, modes of reflexivity are contextual and dynamic, which offers us a frame of reference to understand people's diverse actions, even if partially.

3.2.3. The role of reflexivity in curriculum making

Teachers have distinctive ways of 'dovetailing' their concerns and priorities through their internal conversations, which may explain the different stances they take in their particular contexts (Archer, 2007, p. 89). The overarching aim of these internal conversations is to establish a *modus vivendi*, which is sustainable and satisfying for that particular individual. Of course, the individuals are located within social contexts, as Archer (2003) explains in the following extract:

> The structural and cultural properties, which shape the situations that agents necessarily confront, possess generative powers of constraint and enablement. However, whether these are or are not activated and exercised is a question of their relationship of the configuration of concerns, which are subjectively defined by agents. Ultimately, what courses of action are adopted and which social practices are established derives from the reflexive deliberation of agents, who subjectively determine their practical projects in relation to their objective circumstances. (p. 183)

Internal conversations can serve various cognitive functions, such as planning, self-regulation, sense making, and self-control (Chalari, 2017), which are all important components of teachers' curriculum making practices. By utilizing the notion of reflexivity, research studies have illuminated different areas or factors, such as teachers' identity and agency (Lord, 2016; Luckett & Luckett, 2009; Ryan & Barton, 2020; Westaway, 2019) and policy implementation (Brew, Boud, Lucas, & Crawford, 2017), having an ultimate aim of explaining people's complex actions. For example, it has been argued that reflexivity conditions how teachers mediate different enablers and constraints and may shape the emergence of teacher identity and agency in particular ways (Lord, 2016; Westaway, 2019). Understanding different modes and degrees of reflexivity within one mode is important to explain individual differences in people's actions, even under similar structural and cultural factors. This is also a strong entry point to understand teachers' curriculum orientations, which result in different priorities, concerns and practices (Zeichner & Tabachnick, 1991; Mitchell, 2017). Moreover, some researchers argue that people can draw on a range of modes to varying degrees in different situations (Cavener & Vincent, 2020; Kahn, 2013; Kahn et al., 2017; Ogilvie, 2017). This indicates the importance of understanding contextual characteristics, which may help or hinder developing and exercising certain modes of reflexivity.

There are mainly two strands of discussion regarding Archer's (2007) theory of reflexivity. First, the imperative of reflexivity to understand people's reasoning, decision-making and actions has been argued in the literature. For example, this includes how reflexivity plays a role in mediating accountability mechanisms and pressures and generating teacher agency (Ryan & Barton, 2020); in teaching practices such as teaching to and about diversity (Ryan et al., 2019); and in building and shaping professional identity (Lord, 2016; Westaway, 2019) and professional growth (Ryan & Webster, 2019), to name a few. Second, there is a recurrent argument for the need for a more sophisticated approach to Archer's (2007) modes of reflexivity. In this respect, some have challenged the nature of these modes, while others have reflected on the methodological applications. For example, there is a discussion around the modes of reflexivity that suggests that it oversimplifies social actions and therefore underemphasizes intersubjectivity and social circumstances (Lord, 2016; Matthews, 2017). Dyke, Johnston, and Fuller (2012), while valuing the contribution of reflexivity, suggest that there is a need for a different discourse, such as using practising/demonstrating/exhibiting reflexivity instead of using 'reflexives' as a fixed label or a personality type. My research has followed the same path, both in presenting the pilot study findings (Hizli Alkan & Priestley, 2019) and in the main research.

Another question related to the modes of reflexivity concerns how people may come to exhibit one certain mode of reflexivity. Cavener and Vincent (2020) argue that educational interventions and employing critical reflective pedagogical strategies may lead to the development of a certain mode of reflexivity. Moreover, Ryan (2014) argued that, if people are aware of their reflexivity, they may be able to learn how to effectively navigate their way. These are important findings to highlight that the way teachers mediate curriculum making can be understood and shaped by interrogating the modes of reflexivity. Further, because these modes are not fixed, there is scope for developing more complex and elaborate modes of reflexivity when required.

Besides internal conversations, it has been argued that external conversations may also have an impact on exercising of reflexivity. For example, external conversations may influence which mode is activated, sustained or replaced (Matthews, 2017; Ogilvie, 2017). This argument was also echoed by Willis et al.'s (2017) research with early career researchers. They argue that teachers' external conversations, especially with leaders and mentors, can influence how teachers deliberate on their concerns and project future actions, in other words, how they practise one dominant mode of reflexivity. This is important, as we know from previous research that internal and external conversations constantly affect each other (Chalari, 2017). My thesis offers an analytical and conceptual framework to analyse this interaction and to reveal how curriculum making practices are consequently mediated by teachers. To the best of my knowledge, an empirical combination of internal and external conversations was first introduced by Dyke, Johnson, and Fuller (2012), a conceptualization which informed my thesis. They argued for a more dynamic understanding of modes of reflexivity and for obtaining additional insights into the individual account and the social environment through networks. Although their research is valuable to shed light on the combination of reflexivity and networks, the study included only one participant, without delving into the details of the people in the network and what actually flows in the network. Hence, they did not establish a complex, systematic and detailed picture of that combination, which is one of the gaps that my research addresses.

Meanings attached to the networks, as well as positive or negative emotions, may play a role in the movement to one mode of reflexivity from another (Millis, 2016). People's networks can also be considered alongside social expectations. Chalari (2007) defines social expectations as 'factors (or filters) used by the individual (and thus by the mediation mechanism) which an individual must take into account in both her inner and social worlds' (p. 231). She proposed that positive and encouraging social expectations will produce more advanced reflexive deliberations (Chalari, 2017), but it is also important to consider whether teachers' personal concerns conflict or are in

harmony with social expectations. Hence, it is imperative that teachers' reflexivity should be considered in a more nuanced way, which will capture social expectations and also teachers' external conversations.

3.3. Teachers' networks

I shall now move from internal conversations to discuss external conversations, to explore theoretical and empirical insights related to teachers' networks and their role in curriculum making by teachers. I shall begin by describing some of the terminology of networks (see Appendix 1 for a full glossary) and continue by exploring the current literature on the role of networks in curriculum making.

3.3.1. Social networks of teachers: an ego-network approach

One of the influential authors in the design of my research, Bellotti (2015), defines social networks as the 'empirical phenomena of interconnected patterns of relations among living organisms' (p. 5). The underlying assumption is that the interconnectedness plays an important role in influencing people's behaviours (Perry, Pescosolido, & Borgatti, 2018). Thus, a key task of networks is to offer explanations on how a web of relations and their content may explain human (inter)actions. Daly (2010) suggests that network research is particularly helpful to understand educational change and teachers' responses, as well as the potential trajectories of teachers' interactions, through employing sophisticated conceptual and methodological tools. Hence, a network approach is helpful for my research, too, to understand the mediation of curriculum making through exploring teacher's external conversations in depth. Moreover, it is seen as a valuable contribution as a data generation method in critical realist social research, within with my research is situated (Buch-Hansen, 2014) (see Chapter 4).

There are mainly two designs in social network research: whole network research design, and ego-network research design (which can be called ego-centric, ego-net, or personal network) (Perry et al., 2018). The difference is that the former looks at all connections (ties) among all alters (people in the networks) within a population (e.g., school), while ego-network concerns only a part of that population (e.g., a number of teachers) and explores individual persons' (ego) connections. There are some benefits and limitations associated with each design. An ego-network approach is useful to map teachers' networks which span the boundaries of their school environment because there are no prior assumptions made about the structure of networks, for example, the inclusion of pre-existing department groups (Carmichael et al., 2006; Coburn, Russell & Kaufman, 2012). One of the underpinning ideas of ego-network is that individuals are embedded in different social

contexts, which may have various impacts on their actions (Perry et al., 2018). This is particularly important in curriculum making, to capture a variety or a lack of resources incorporated inside and outside of the immediate work environment, including formal and informal ties (Woodland & Mazur, 2018). On the other hand, ego-network research does not enable mapping of broader networks in which an individual person's network is embedded. Furthermore, because we rely on people's accounts in terms of the structure of network, there may be some inaccurate or subjective responses (Perry et al., 2018; see Chapter 4). Smith, Menon and Thompson (2012) offer three network structures: potential network (the total number of potential contacts people can contact), activated networks (a subset of potential network, includes people who came to mind for a specific purpose), and mobilized networks (a subset of activated networks, people who were actually contacted for a specific purpose). Although my research focuses on mobilized networks, I acknowledge the cognitive process of forging ties; therefore, teachers might fail to add some contacts, or there might be some alters who teachers rejected in talking about the curriculum. Nevertheless, for my research, the ego-network approach is a powerful way to map individual teachers' curriculum making networks, even those perceived subjectively by individuals, to explore the structure, culture and dynamics within ego-networks.

The literature shows that teachers' external conversations are investigated by employing different terminology, such as communities of practice, teacher collaboration, social networks, professional enquiry, etc. Although there is no clear agreement on their definitions (Kelchtermans, 2006), there is arguably a common debate that teachers are embedded in a web of relationships which may influence how they act in various ways (Little, 2003; Moolenaar, Sleegers, & Daly, 2011). Additionally, there are different forms and tenets of networks, which are influenced by context, particular time periods and content of the conversations (Kelchtermans, 2006; Little, 1990). In a broad sense, teachers' networks are perceived to be essential factors to leverage the quality of education (Coburn et al., 2012). Although there is extensive research about teachers' networks, there is still a need for a fine-grained analysis of what is happening inside teachers' networks and how the networks leave 'footprints' (Little, 2005, p. 281) on teachers' practices (Sinnema et al., 2020; Tuytens, Moolenaar, Daly, & Devos, 2019; Woodland & Mazur, 2018).

The next sections will present some research insights regarding the reasons for and forms of teachers' networks, how they are structured, what flows in these networks, and the quality and influence of these networks on teachers' practices. I shall then examine the role of networks in curriculum making and also construct a solid foundation upon which to locate the findings of my research.

3.3.2. Reasons for and forms of teachers' networks

There are several reasons why teachers construct networks. This may happen voluntarily and purposefully, for example, having a genuine interest to forge a tie (e.g., being interested in academic research and so connecting with researchers), and sometimes involuntarily, for example, as part of a school innovation programme (e.g., having to work with teachers within the same department) (e.g., Coburn, Mata, & Choi, 2013). The latter type of forming ties is called 'institutionally mediated' relationships (Small, 2017, p. 106). Further, Borgatti, Everett and Johnson (2013) differentiate relational states (base relations, e.g., colleagues) from relational events (things an ego does with others, e.g., curriculum making). According to Borgatti (2021), there are two simultaneous processes. First, relational states provide a context for relational events to occur, and recurring relational events are used to interpret the state of the relationships. As such, Small's (2017) institutionally mediated ties refer to relational states which can be seen as 'pipes' where relational events happen (or not). Borgatti (2021) argues that this distinction is important when making sense of the meaning of relationships for the ego and the nature of transactions.

Existing research indicates that teachers form ties with similar peers (Reagans, 2011; Spillane, Shirrell, & Sweet, 2017), which is termed 'homophily' in network research (Perry et al., 2018). Overall, there are a few emerging themes to explain the reasons for forming networks, such as professional development (Penuel, Sun, Frank, & Gallagher, 2012; Sun et al., 2013; Vangrieken, Meredith, Packet, & Kyndt, 2017), school improvement (de Lima, 2007; Little, 2005), collaborative curriculum making and implementation (Coburn, Mata and Choi, 2013; Voogt et al., 2016), and educational innovation (Moolenaar & Sleegers, 2010; Woodland & Mazur, 2019). All of these themes are interlinked and connected to the curriculum in some way. I shall now examine the themes related to curriculum making by teachers, to discuss particular reasons for and forms of teachers' networks, to lay a foundation for this thesis.

Curriculum reforms often bring a set of unclear meanings and new pedagogical ideas and strategies, which may open up new conversation channels for teachers (Cole & Weinbaum, 2010). These channels may play an important role in curriculum enactment in various ways (Coburn, Russell, Kaufman, & Stein, 2012; Coburn & Russell, 2008; Daly, 2010). For example, teachers may form networks to make sense of curriculum policy messages (Coburn, 2005; Siciliano, Moolenaar, Daly, & Liou, 2017), to improve their teaching by learning new instructional strategies (Anderson, 2010; Bidwell & Yasumoto, 1999; Coburn et al., 2012; Sun et al., 2013), to enhance their curriculum making skills, such as curriculum design (Huizinga et al., 2015; Voogt et al., 2016), or to access

expertise in curriculum-related issues (Coburn et al., 2012; Coburn & Russell, 2008). This should not be seen as one-way-communication, because reform demands and teachers' interactions continuously influence each other (Cole & Weinbaum, 2010). The former reasons refer to what Small (2017) calls a 'reflective activation model' (p. 115), which characterises decision-making as a deliberative exercise. Equally, teachers may forge ties following incidental activation (being aware of the concern but not choosing the alter purposefully) or spontaneous activation (not planning to talk about certain issues with certain people) models. My research concerns the reflective activation model, as the purpose of the conversation is communicated with the participants.

Following various reasons for constructing networks, we may observe different forms of networks emerging: advice networks (Coburn et al., 2012); information-seeking networks (Meredith et al., 2017); and formal and informal support networks (Woodland & Mazur, 2019). These may be distinct from each other or may overlap, which is called 'network multiplexity' (Crossley et al., 2015). Multiplexity of ties illustrates the complexity of teachers' interactions. For example, teachers may have friendship relations within their professional network (Siciliano et al., 2017), although Moolenaar, Sleegers, and Daly (2012) claim that this multiplexity is limited. Other research suggests that, if there is multiplexity in the professional network of teachers, friendship ties might make it difficult to consider conflicting perspectives about curriculum making (de Lima, 2001) or teachers may feel pressure to conform (Cole & Weinbaum, 2010). Of course, teachers' personal characteristics, such as their attitudes, personal efficacy levels and their concerns and priorities, may also be the reason why teachers form networks with certain people and why some are perceived to be more influential than others (Cole & Weinbaum, 2010; Kelchtermans, 2006). In addition to personal factors, some structural factors, workload stress or a lack of time (Johnson, 2003), accountability practices, and performativity agendas make teachers form (or not) ties with specific people. Hargreaves (1994) defined the latter one as 'contrived collegiality', as such collaboration would only help to execute externally imposed agendas. Furthermore, the simultaneous processes between relational states and relational events (Borgatti, 2021) need further investigation to better understand multiplexity. This suggests that qualitative insights about networks and the meanings attached to ties may reveal hidden mechanisms that potentially create the events we observe at the empirical level. Hence, looking at the following characteristics of the networks will enhance our understanding of how teachers mediate curriculum making practices.

3.3.3. Structure and content of teachers' networks

How teachers' networks are structured, for example, whether it is a dense or sparse network, also offers some insights in terms of the extent to which new ideas enter the network and how quickly they diffuse amongst the network members. Density is the degree of the connectedness of the people in a network (Bellotti, 2015). If all alters (people) in the network know each other or are connected in some way, that means that the network has a perfect density. Some researchers argue that dense networks can encourage orientation towards change (Moolenaar, Sleegers, & Daly, 2011) and promote and enable a feeling of team satisfaction (Borgatti & Ofem, 2010), while others indicate that a high density may mean a limited introduction of new ideas to the network (Buch-Hansen, 2014).

Another focus of network literature concerns the composition of the networks; in other words, the degree of diversity within the network. The characteristics of alters may include age, years of experience, personal attitudes, context, and subject background. For example, the subject background may affect the dynamics of teachers' interactions (Spillane, 2005) and may influence the direction and content of curriculum making practices (Crick et al., 2019). This suggests that the subject backgrounds of the ego, and also the alters, need to be considered to understand curriculum making practices. Additionally, geographical closeness, or proximity, is another factor that may explain the structure of the network, as teachers tend to connect with colleagues who are closer to them (Reagans, 2011), and schools' buildings can facilitate such interactions (Spillane et al., 2017).

What flows in teachers' networks also remains an area that needs further investigation. As Geeraerts et al. (2018) state, 'content matters' (p. 267), and this needs to be uncovered to understand what kind of knowledge and practices are generated or exchanged within the networks, and also what might be lacking to identify potential areas to address curriculum making at different sites. Kruse and Louis (1993) offer a framework to distinguish these, and underline the importance of engaging in reflective dialogue that involves rich conversations about student learning, pedagogy and curriculum as a mark of the growth of teachers' networks. The type of content actually may explain why teachers form ties with certain individuals. Furthermore, the content of the relationships may provide some insights into the meanings attached to their connections. Ties can be perceived as positive, negative, or challenging (Daly et al., 2015; Labianca & Brass, 2006). This is important, as the meanings attached to networks can influence curriculum making practices (Hizli Alkan, 2021; Siciliano et al., 2017).

3.3.4. Quality and influence of teacher's networks

The quality of teachers' networks has been analysed by looking at a variety of indicators, such as strength, trust, frequency and intensity of communications (Atteberry & Bryk, 2010; Coburn et al., 2013; Kolleck, 2016; Siciliano, 2016). As mentioned previously, meanings attached to ties, and also how each indicator is perceived subjectively, are often overlooked in network literature. For example, how a teacher defines trust may be equally important as the degree of trust in the network, but there is very little exploration of such indicators; this is one of the gaps that my research addresses.

To start with strength, strong ties can facilitate complex change processes (Penuel et al., 2009) and can be a building block for positive and supportive relationships. Strong school-based ties can promote mission-aligned practice (Anderson, 2010). Moreover, Coburn et al. (2012) argue that strong ties, when composed of a combination of high-depth interaction and high expertise, may facilitate teachers' adjustment to new reforms. Trust is another ingredient to examine when considering the quality of teachers' networks concerning innovation (Moolenaar & Sleegers, 2010) or in developing close relationships (Liou & Daly, 2014). More trusting relationships and those with a high frequency of communication are seen as the indicators of strong relationships (Brown et al., 2016), as are years of teaching in a school (Liou & Daly, 2014). Johnson (2003) adds that it is not only the frequency of the communication but also the intensity and content of conversations that is linked with the degree of trust. Daly et al. (2015) investigated the affective dimensions of ties and argue that negative relationships often are the ones with perceived less trust, which in turn results in limited professional learning. Reagans (2011) found that teachers who have frequent communication felt emotionally closer to each other. More frequent communication was also found to be more influential on teaching practice (Woodland & Mazur, 2019). The majority of the network literature (e.g., Coburn et al., 2012; Sun et al., 2013) focuses on the impact of frequent communication on teaching practice (or instructional practice), yet we need more detailed insights as to how this impact is perceived and how alters are influential in different domains of curriculum making, such as sense-making, which is argued to be one of the crucial parts of curriculum making practices (Soini et al., 2018).

Conclusion

This chapter established that there have been numerous attempts to answer curriculum-related questions by utilizing different orientations, theoretical approaches and hermeneutics at the conceptual and empirical levels. There are no easy and direct answers, as Eisner (1979) indicates; 'the hunt for recipes, rules, formulas, and other nostrums to solve educational problems is a

hopeless one' (p. 33). This chapter illustrates that there is a call for utilizing different theoretical and methodological lenses to study curriculum by building upon valuable already well-established curriculum scholarship. As discussed throughout this chapter, these works include, but are not limited to, Schwab's (1969) *the Practical*, Pinar's (2004) 'complicated conversation', Clandinin and Connelly's (1992) notion of teacher as curriculum maker, and Priestley et al.'s (2021) heuristic framework of curriculum making as social practice. The next chapter presents the methodological questions.

Chapter 4. Methodology

Chapter 4 Outline

My research aims to contribute to curriculum research by offering an original methodology by combining critical realism with reflexivity and networks within the context of teachers' curriculum making. I begin by unpacking my reflexivity practices during the life of this research project to illustrate how my thinkings and doings were navigated, before outlining the philosophical framework. After presenting detailed descriptions of the research design and its related activities, I shall then explain the data generation and analysis procedures. I end this chapter by considering the trustworthiness and rigour of my research and the potential limitations of the study design.

4.1. Researcher reflexivity

In a thesis where reflexivity is employed as a key construct, it is appropriate to make my researcher reflexivity practices explicit. Throughout this thesis, I shall reflect upon my own personal and professional baggage of knowledge and experiences, uncertainties, and surprises (mostly through footnotes from my research diary). My main intention is to reveal the research processes and acknowledge my subjectivity and potential influence, for example, from the research interests (see Chapter 1) whilst keeping the 'balance between flat, unreflexive analyses, and excessive, hyper, reflexive analyses' (Gough, 2003, p. 21). In this section, I would like to reveal a few important strands in exercising my reflexivity. I will thus draw on some researcher reflexivity-related literature (e.g., Finlay & Gough, 2003; Mauthner & Doucet, 2003) to offer more research-specific insights.

First, I consider reflexivity as a dynamic, ongoing and evolving process (Clark & Dervin, 2014) of self-projection and self-awareness (Finlay & Gough, 2003) within every stage of research. The intensity and the texture of practising reflexivity varied throughout my research. For example, data generation and the iterative cycles of data analysis were the most enhanced periods of reflexivity, accomplished through engaging with internal and external conversations. I followed what Ballinger (2003) suggests as reflexive strategies: asking difficult questions (both during internal and external conversations), writing a research diary (some extracts will be presented throughout), presenting research to different audiences (e.g., academic conferences, meetings with the Scottish Government officers and random passengers during my travels), and reflecting on unexpected findings and difficulties (both internally and with my supervisors, and doctoral friends).

I recorded most of my internal conversations straight after each session of fieldwork was completed, trying to make sense of my experiences on that day, as well as my thoughts, feelings, and concerns, and thinking about the next steps in my research. Sometimes, it was also helpful to record and reflect on potential ethical issues, as the following extract depicts.

> Although Karen wanted to use her real name in the research, I couldn't accept this as there are only a few pioneer teachers in her subject area so she could have been potentially identified. This would also put some of the people in her network at risk. She was happy to have a pseudonym after I explained my concerns. (Diary, 15.02.2019)

Transcribing the interviews and receiving reflective diaries throughout a term was another medium with which to practise reflexivity and mull over the next phase or choose particular readings to inform my thinking. For example, after noticing negative ties in the networks, which I did not specifically ask during the interviews, I turned my attention to read more about the affective dimension of teachers' networks. Moreover, several significant events fostered my reflexivity as a newcomer to the Scottish and Welsh contexts. These included: meeting with policymakers through curriculum-related meetings in Education Scotland and the Scottish Government; engaging with practitioners across Scotland and Wales through teacher-led conferences, seminars, social media, and my pilot study and main study; attending conferences and being part of the curriculum networks; discussions with and feedback from my supervisors; teaching in Initial Teacher Education programme in Stirling; and, finally, taking a lectureship position in Stirling. These, and more, all contributed to increasing my level of consciousness while I was provisionally positioned and repositioned in my research.

Because I do not have experience of teaching in schools in Scotland and Wales, it was essential to create opportunities to maximize my familiarity with the systems that I was researching. Berger (2015) argues that a researcher's lack of familiarity with the context might benefit research as participants might position themselves as experts and offer more details about their experience. Indeed, realizing that I was an 'outsider', the teachers articulated their accounts in a very detailed fashion and they checked my knowledge of abbreviations or some of the preceding events in Scotland and Wales. This enabled me to gather much more elaborate narratives with the teachers. On the other hand, it often took me a while to understand what the participants meant (Mann, 2016). I therefore held regular discussions with my supervisors to make sense of some unfamiliarities or less familiar concepts and contextual aspects. I sometimes returned to research participants to ask them to elucidate some aspects of their narratives as well. Having had a chance to visit each school twice also allowed me to ask for clarifications where necessary. Finally, when

I encountered confusion or uncertainty about the contexts, or if I felt that I had limited understanding of some aspects, I consulted insights from other researchers in this field (Mauthner & Doucet, 2003). These researchers (who I cite in this thesis), including my supervisors, influenced my first image and ongoing sense-making process of the contexts.

4.2. Philosophical framework

My journey to develop a philosophical framework started at my very first supervision when I was asked which theory I felt closer to, for which I did not have an answer. Reading about social theory, especially about critical realism, which my first supervisor introduced to me, I then immersed myself in reading primarily the works of Roy Bhaskar and Margaret Archer. Although it was rather daunting at the beginning due to the intensity of learning new terminology, additional readings that use more accessible language and which provided practical examples (e.g., Edwards, O'Mahoney, & Vincent, 2014) helped to acquaint myself with the concepts and main assumptions about the nature of knowledge and ways of knowing. Acknowledging the complexity of curriculum making by teachers, my main intellectual puzzle (Mason, 2002), was about the various ways of teacher mediation of curriculum making practices and potential reasons for that (akin to the kaleidoscope and its hidden mechanism). Having read about critical realism and engaged in intellectual conversations with my supervisors, doctoral students in meetings, and in seminars and conferences, I was convinced that critical realism offered a very comprehensive and helpful set of concepts to inform my research, make sense of data, and present findings, which I shall explain next.

4.2.1. Critical realism

I shall now sketch out the main tenets of critical realism, which are directly related to my research or which are helpful to understand how critical realist concepts and ideas have been used throughout this research, rather than present an exhaustive account of critical realism. To portray the trajectory systematically, from ontological and epistemological underpinnings to formulating research questions, I followed Mason's (2002) five questions, which concern: ontological perspective, epistemological position, broad research area, intellectual puzzle, and research questions, to formulate answers for the methodological aspects of my research, as she too follows a critical realist approach.

Critical realism informed my research in three ways: understanding reality as layered and emergent, perceiving the social world as a complex open system, and the theoretical generalizations of the findings. Critical realism as a research philosophy establishes clear

assumptions regarding epistemology, the nature of knowledge and the ways of knowing, and ontology, the existence of knowledge and the nature of reality. It was developed by Bhaskar (1998) at a time of crisis in debates on the nature of knowledge, evident in arguments between adherents of positivism and interpretivism (Danermark, Ekström, Jakobsen, & Karlsson, 2002). Critical realism offers an alternative way of approaching science with its distinctive ontological and epistemological stances, which are between the extreme ends of positivist and interpretivist philosophies. It favours a 'both-and' rather than an 'either-or' (Danermark et al., 2002) approach to a few longstanding discussions in science on some dichotomies (e.g., quantitative versus qualitative, subjective versus objective). One of the main arguments in critical realism, based on its aforementioned position, is that social events can be explored scientifically, but the methods used in the process differ from positivist ones. More specifically, critical realism holds the idea that the objective world exists independently and even without our knowledge of it (Bhaskar, 1998). Although it might be seen as being similar to positivism, it differs on the idea that the part of this objective world is socially constructed, echoing interpretivism. This assumption is one of the key features of critical realism; that it distinguishes the objective world and our experience of it. In other words, 'reality has an objective existence but that our knowledge of it is conceptually mediated' (Danermark et al., 2002, p. 15).

This also brings us to the discussion on the *open and closed systems* in the social world. Positivism offers a way of investigating the social world as a closed system in which different characteristics of people are assigned as different variables (O'Mahoney & Vincent, 2014) without taking into account different contextual factors where these variables are positioned. In contradistinction, critical realism holds the idea that the social world is an open system that requires 'rich and thick explanations' (O'Mahoney & Vincent, 2014, p. 4). To put it differently, 'the parts of the universe (or entities), which ultimately interact to cause events we observe, cannot be studied or understood in isolation from their environment' (O'Mahoney & Vincent, 2014, p. 6).

The question then arises as to what these *entities* are and how they interact to create events. There are two kinds of entities; social and material (O'Mahoney & Vincent, 2014). Elder-Vass (2008) explains that social entities are 'composed of human individuals (their parts), organised through the roles they occupy in the organisation (which define the relations between them), and the consequence of these people acting in these roles (a generative mechanism) is to produce the capabilities of the organisation as a whole' (p. 288). For example, a teacher is a social entity, having different roles in a school, which is also another entity in a whole education system. The entities can be also material (O'Mahoney & Vincent, 2014), such as the physical infrastructure of a school

or its physical artefacts. These entities, which exist in different layers of the system, are explained in the notion of a 'laminated system' (Bhaskar & Danermark, 2006, p. 278). This refers to the necessity of recognising several mechanisms (e.g., socio-economic, psychological, cultural, etc.) to understand the social phenomena under consideration.

These layers within different entities which comprise the open and laminated system are not the sum of all the constituent parts (Elder-Vass, 2010). The concept of *emergence* arises here to explain the reasons why. It is to express that the properties of the whole, that is, the open social system that possesses different entities at different layers, may be different than the sum of the properties of the entities it comprises. For instance, a school community can do things where individual teachers may not be able to (Elder-Vass, 2010). Hence, 'entities have emergent properties which are dependent upon, but irreducible to, their 'lower-level' components (O'Mahoney & Vincent, 2014, p. 7).

Causal power is what the entities may possess, exercise or actualize (O'Mahoney & Vincent, 2014). This notion is particularly important for understanding the interactions between entities. To articulate different sorts of causal powers, an entity may possess a power regarding its properties; this power may be exercised, however, this exercised power may or may not be actualized (O'Mahoney & Vincent, 2014). For example, the school community has the power to innovate the development of a new curriculum. This possessed power may be exercised through assigning new roles to teachers. However, this exercised power may not be actualised due to different structural (e.g., accountability practices) or cultural (e.g., disbelief towards change) constraints. How these powers are exercised leads us to the discussion on *causal mechanisms*, one of the key concepts in critical realism. In the previous example, a causal mechanism may lie in the ways in which the work is communicated to teachers.

So far, I have presented the main concepts of critical realism to make more sense of its depth ontology, as a response to Mason's (2002) first question: 'What is the nature of the phenomena, or entities, or social reality, that I wish to investigate?' (p. 14). The reality of the social world as an open system, where subjective and objective worlds are both recognised, is complicated. Accepting the positioning of these worlds in relation to the aforementioned issues, critical realism posits a stratified reality (Bhaskar, 1998). This stratification is explained as having three overlapping domains of reality. These are the empirical, the actual, and the real domains. The empirical domain relates to what we experience and observe; the actual domain refers to the events which we may or may not be experienced; and, the real domain refers to unobservable mechanisms and constitutes the actual and the empirical domains. These mechanisms are not

always necessarily active, perceived or strong enough to generate the events we observe at the empirical level (Archer, 2012). They always interact and sometimes counteract with each other and enable or constrain the individual. Each layer includes the layer above and adds depth. These layers and what they constitute are illustrated in Table 4.1. and, more effectively, with annotations in Figure 4.1.

Table 4.1. Bhaskar's three domains of reality (Bhaskar, 2008, p. 47)

	Domain of real	Domain of actual	Domain of empirical
Mechanisms	X		
Events	X	X	
Experiences	X	X	X
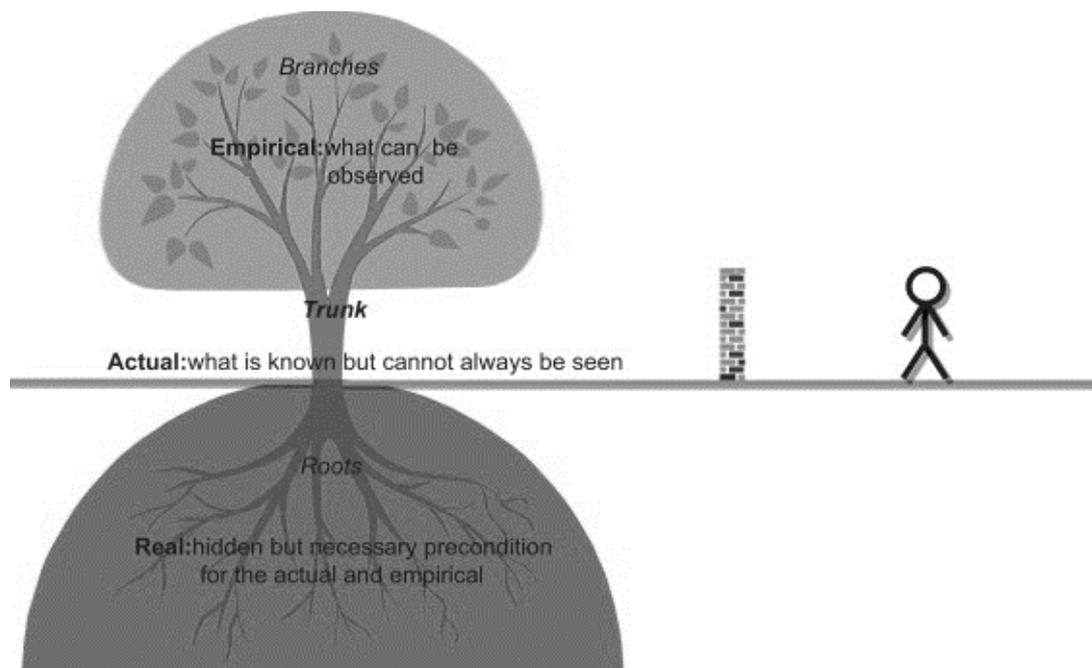
Figure 4.1. An illustration of the three domains of reality (adapted from Walsh & Evans, 2014, p. 2)[23]

The figure above illustrates these domains, with a researcher observing the social phenomenon, which is demonstrated by a tree. The researcher can observe the empirical domain (the tree

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[23] Although the context of Walsh & Evans' research is health, the illustration can be adapted to think about education.

branches) through thinking with theoretical concepts. For example, I can observe whether a teacher communicates with certain colleagues in the department or whether the teacher accounts for why certain people are included in the network. Similarly, if a teacher records his/her internal conversations in a reflective diary by stating her deliberations on exam criteria for content selection, this would be an empirical observation. The actual domain comprises the things we cannot always observe but which we know exist, based on the empirical domain observations. In this figure, the trunk of the tree may not be seen because of the wall, but we 'know' that it is there. For example, a statement about teachers forming ties with colleagues with the same subject backgrounds is an example of the actual domain observation. In the second example, it would be teachers prioritising exam criteria in selecting the content to teach. When we go deeper, the real domain is comprised of generative mechanisms that exert influences on the events we observe in the empirical domain. This is illustrated by the hidden roots. For example, a potential generative mechanism for the first example can be the performativity pressures in subject-specific attainment levels, or the way in which schools are formally organized into subject departments, which offer limited opportunities to communicate with teachers from different subjects. Similarly, accountability practices, competitive culture, and national quality assurance policy may be potential generative mechanisms for the second example. This stratified reality is imperative for my research, as the social phenomena under investigation, curriculum making, is socially and relationally constructed at different sites, and this requires a very nuanced philosophical framework to understand teachers' practices. The ultimate purpose of employing a critical realist view in my research is to offer an extensive explanation of the empirical data, to identify and explain generative mechanisms that underlie the teacher mediation of curriculum making. Returning to the kaleidoscope analogy, my critical realist inquiry is similar to the journey of investigating the hidden mechanisms (e.g., the position and the angles of the mirrors) to understand how the images emerge, which are ever-changing and context-dependent.[24]

Finally, drawing on critical realist concepts, Archer (1995) offers an analytical framework to understand how individuals make their own may through the world, as a result of the interactions with their social environment, in which reflexivity plays a vital role. This framework is referred to as the Morphogenesis/Morphostasis approach, terms first utilized by Buckley (1967); the former signifying transformation and change (which might be personal, structural or cultural), while the

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[24] I am aware that this section illustrates an overlap between ontology and epistemology, which is inevitable, as ontology becomes epistemology as soon as we talk about it. Also, according to critical realism, the nature of reality is both objective and subjective. Mason's (2002) typology, therefore, does not capture this overlap adequately. Nevertheless, her questions are still helpful to tell the story of designing this research.

latter refers to the reproduction or preservation of social systems. For example, teachers' curriculum orientations might change through research, reading or some educational events, but the social structures might still endure which inhibit teachers from transforming their practices. In this thesis, I shall extrapolate the possibility of morphogenesis and morphostasis pertaining to teachers' curriculum making practices (see Section 4.4. and Chapter 8).

Mason's (2002) third question is about the broad topic the research is concerned with, and the answer should reflect the epistemological and ontological formulations. As discussed above, the overarching aim is to understand the mediating role of reflexivity and networks in teachers' curriculum making practices. This statement acknowledges the fact that teachers' perceptions and actions can be explained through social research, as meaningful components of the social world. These both influence and are shaped by the structural and cultural constraints and enablers. To express this in critical realism terminology, the teacher is an entity holding different emergent properties (e.g., reflexivity as a personal emergent property) whilst acting as a part of a greater system (having different roles and relationships), which also have various emergent properties (e.g., exercised power of inspection). In this complex array of a system, my aim as a researcher is to provide 'thick explanations' (O'Mahoney & Vincent, 2014, p. 19) of the observable events and unobservable mechanisms, which are always fallible and always incomplete. My research questions, which are presented below, are formal expressions of the intellectual puzzle, as Mason (2002) suggested.

1. How are secondary school teachers' curriculum making networks structured and composed?

2. What are the structural and cultural dynamics in these networks and in what ways do teachers mediate these in curriculum making?

3. What are teachers' concerns and internal conversations regarding curriculum making?

4. In what ways does teacher's reflexivity (exercised in internal conversations) play a role in mediating curriculum making practices?

5. What are the personal, structural and cultural properties that emerge in curriculum making practices, in regards to the internal and external conversations?

6. In what ways does the mode of reflexivity play a role in the interplay between internal and external conversations about curriculum making?

7.   What are the generative mechanisms that underlie curriculum making practices by secondary school teachers?

Up to this point, I have outlined my philosophical framework and provided some explanation on the theoretical framework presented in Chapter 3. A summary of the conceptual framework used in this study, including its philosophical and theoretical constructs, is presented in Appendix 1. I reiterate here that these constructs provide concepts to communicate the meaning, possibilities and questions regarding the data.

4.3. Research design and activities

This section will outline the overall design of the research activities (see Table 4.2.) and methods employed, and will provide detailed explanations of each activity.

Table 4.2. Research activities that were undertaken during my doctoral research

Year 1 – 2017/2018	Year 2 – 2018/2019	Year 3 – 2019/2020
Pilot study research activity with 6 teachers from Scotland and 3 teachers from Wales • Online focus group	Main study research activities with 6 teachers from Scotland and 2 teachers from Wales: • Semi-structured interviews • Participant and non-participant observations • Participant-produced reflective diaries • Internal conversation interviews • Ego-network interviews • Completing the Internal Conversation Indicator (ICONI)	

This research was designed as a convergent mixed methods research study (Creswell & Plano Clark, 2017), which is an integrated and sequential mixed methods design. This method is commonly used in social research when a small amount of quantitative data are embedded within a largely qualitative one, which is the case for my research. Each method, which will be explained in more depth in the data generation section (Section 4.3.2.2. below), is integrated to make sense of different aspects of the social phenomena observed, and to complement each other in different ways (see Figure 4.2.). Briefly, the complementarity of different methods is employed to access different aspects of teachers' curriculum making practices. Each phase informed the subsequent phase in different ways. For example, observations helped to stimulate recall during interviews. A

summary of complementarity is presented in the diagram below, which will be explained in the following sections for each method.

Phase 1

As a preliminary stage, exploratory, facilitating interview, leading to further reading, observing active construction of curriculum documents, conversations among staff, non-participant (Class), participant (school)

Exploring internal and external conversations as complemented with the previous phases

Observations

Interview (Internal Conversation) Interview + Ego-network)

First Interview ICONI

Constructing teachers' professional profiles, conceptualisation of curricular concepts, prompting the reflective diary structure and the second interviews Dominant mode of reflexivity to be further explored

Convergent Mixed Methods (Creswell & Plano Clark, 2017)

Observations

Reflective Diaries

Phase 2

Identifying critical points and how teachers reflect on them, gaining insights into their thought and action patterns, stimulating further reading and identifying new topics to discuss

Similar to the observations in Phase 1

Phase 3

Figure 4.2. The overall design and complementarity

Another reason why I employed a convergent mixed methods design is that it offers time and space for both grasping the overall picture of quantitative patterns and facilitating an in-depth explanation of these patterns (Creswell & Plano Clark, 2017). Within a convergent mixed methods design, I employed a multi-case study approach (Stake, 2006). The main features of critical realism favour this design, due to its great emphasis on context and causation (Kessler & Bach, 2014). Considering their uniqueness and complexity, in my research, each teacher has been treated as a single case.

Although mixing qualitative and quantitative methods has attracted increased attention (Bryman, 2008), there are still enduring debates, albeit these are much less prevalent today. These debates are often referred to as 'paradigm wars' (Tashakkori & Teddlie, 2010), which argue that mixed methods research results in the incompatibility of the ontological and epistemological assumptions. Nevertheless, critical realism offers a resolution to this issue while acknowledging the limitations and affordances of each, and focuses on the complementarity to offer plausible

explanations of the social phenomena under investigation (Maxwell & Mittapalli, 2010). Because the critical realism approach provides a distinctive depth ontology (the empirical, the actual, the real domains of reality) and relativist epistemology (our subjective knowledge of the world), a mixed methods design is seen as one of the most robust choices that can be made by researchers (Hurrell, 2014). This is partly due to the belief that 'the particular choices should depend on the nature of the object of study and what one wants to learn about it' (Sayer, 2000, p. 19). It is also because critical realism holds the idea that quantitative approaches solely do not represent the complex, open and stratified nature of reality, while qualitative approaches may fail to represent some quantitative patterns. As such, my research aims to offer quantitative expressions of patterns and qualitative explanations of these patterns without making predictions about them (Hurrell, 2014).

4.3.1. Pilot study

The pilot study was undertaken during February–March 2018 after securing ethics approval (see Appendix 4) to gain insights into teachers' curriculum making practices in Scotland and Wales, to explore how teachers conceptualize curriculum and curriculum making, and to determine the factors which influence teachers' curriculum making practices. The core purposes of the study included piloting thinking with the concept of reflexivity in the context of curriculum making, and exploring how reflexivity mediates teachers' views of curriculum and their practices. Each stage of the pilot study was helpful for different reasons. For example, the recruitment stage was good preparation for the main study in terms of acquiring the expertise relating to recruitment procedures and gaining informed consent from participants. In addition, data generated from an online focus group discussion was an informative process for improving my ability to pose good and meaningful questions. The data analysis process was particularly important, as I explored whether reflexivity was a useful lens through which to explore curriculum making practices. In addition to these, the whole procedure actively shaped my iterative cycle of performing literature reviews and becoming familiar with both contexts. The conclusions and implications drawn from this empirical work demonstrated that a nuanced exploration can be achieved by employing different modes of reflexivity in curriculum research, reiterating the importance of teachers' judgments and the interconnectivity of teacher and curriculum development, and underscoring the importance of the context, time period, and support for curriculum making (Hizli Alkan & Priestley, 2019). Drawing on the empirical findings and readings, teachers' networks, in other words, external conversations, emerged as an important mediator alongside reflexivity, as the teachers often mentioned their internal conversations in relation to external ones. Consequently,

I paid particular attention to the internal and external conversations in exploring curriculum making practices by teachers.

4.3.2. Main Study

4.3.2.1. Recruiting participants

I utilized a variety of strategies, following convenience sampling procedures (Creswell & Plano Clark, 2017) to recruit participants.[25] Because my research entailed several research activities, including participant-produced reflective diaries throughout a term, the participating teachers' commitment to the research was crucial. First, the advertisement for the research (see Appendix 2) and the information booklet for headteachers (see Appendix 3) were circulated through my supervisors' networks (e.g., local authorities), after securing ethics approval (Appendix 5) in June 2018. Second, I was introduced to and made contact with the Chief Education Officers of various local authorities. They shared the information booklet with the teachers and headteachers within their networks. I needed to make an additional application to a local authority to gain ethics approval, which was granted in August 2018. Third, I was then able to contact some of the headteachers for a detailed discussion on what the research entails. I was given the names of teachers who were potentially interested in taking part in my research. Following this, I e-mailed these teachers and included the teacher information booklet (see Appendix 6). There were some cases where teachers were not aware that their names had been suggested by their headteachers, or that they had volunteered to participate in some of the research activities (e.g., one interview), but this was rare within the project as a whole. In such cases, I did not include these participants, according to the informed consent procedures. The recruitment process was particularly challenging in the context of Wales. Although some teachers registered their interest on social media, they were not able to participate due to the ongoing curriculum reform and its demands. At that time, my supervisors held a curriculum event in Wales and advertised my research. One participant, Rosy, was interested and she took part in the research. In the meantime, Karen contacted me on social media in response to my advertisement. After this process, two teachers agreed to participate, although I originally intended to recruit more from Wales.

The teachers were assigned pseudonyms to address confidentiality, anonymity and traceability issues (see Section 4.5.). The pseudonyms do not reflect any of the teacher or school

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[25] Two of my participants were former students of my first supervisor. Three participants were knowledgeable about my supervisors' work around teacher agency and curriculum making. Acknowledging this might help readers to locate the participants within the wider community of teachers.

characteristics. I present more details about the participants in the individual case summaries in Chapter 5.

Table 4.3. Overview of participants and meeting dates

Context	Participant	Subject specialism	First meeting	Final meeting
Scotland	Joanne	Chemistry	12th September 2018	17th December 2018
	Erica	History	13th September 2018	20th December 2018
	Tim	Chemistry	10th October 2018	17th January 2019
	Heather	Design and Technology	26th October 2018	30th January 2019
	Ashley	History	8th November 2018	27th February 2019
	Kyla	English	26th November 2018	31st January 2019
Wales	Rosy	Biology	14th February 2019	23rd May 2019
	Karen	Expressive Arts	15th February 2019	24th May 2019

4.3.2.2. Data generation

Data generation activities fell into three phases. In Phase 1, school observations, interviews and the Internal Conversation Indicator (ICONI), a questionnaire designed to indicate the potential dominant mode of reflexivity, were completed. The teachers produced reflective diaries during Phase 2 until my final visit to their school. Phase 3 had a similar structure to phase one, including observations and interviews. I shall unpack each in the following sections.

Table 4.4. Details of data generation in different phases

	Phase 1 (8 participants)	Phase 2 (7 participants)	Phase 3 (8 participants)
Observations (participant and non-participant)	• 8 full-day observations of the teacher and the school environment		• 8 full-day observations of the teacher and the school environment
Interviews (Semi-structured, internal conversation, ego-network interview)	• 8 semi-structured interviews (ranging from 40 mins to 88 mins)		• 8 internal conversation interviews (ranging from 44 mins to 60 mins) • 8 ego-network interviews (ranging from 41 mins to 92 mins)
Reflective diaries		• 7[26] participant-produced reflective diaries (ranging from 364 words to 2868 words)	
ICONI	• 8 ICONI completed		

Phase 1 included 8 semi-structured interviews, 8 days of observations in classrooms and schools, and the completion of 8 ICONI in total from eight teachers. I shall now explain these methods in relation to critical realism, and also how they are related, as part of a convergent mixed methods research design approach (Creswell & Plano Clark, 2017).

4.3.2.2.1. Semi-structured interviews

From a critical realist perspective, 'interviews provide one route for gaining access not only to the attitudes and emotions of informants, but crucially to richly textured accounts of events, experiences, and underlying conditions or processes, which represent different facets of a complex and multi-layered social reality' (Smith & Elger, 2014, p. 119). Through the first semi-structured interviews, I aimed to portray the teachers' professional profiles and access the

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[26] Ashley encountered a health-related issue during my research which prevented her completing a reflective diary.

contextual conditions within which the teachers acted in terms of enablers, constraints, opportunities, resources, etc., whilst accepting the subjectivity of participants; in other words, their interpretations of their world (Smith & Elger, 2014). As aforementioned, different methods were employed to complement these interviews, providing perspectives drawn from different angles to offer thick and extensive explanations of the social phenomena under investigation.

The framing of the interview guide was mainly informed by Rubin and Rubin (2012), as 'the conversational partnership' (p. 7), in which the researcher and participant work actively to construct the conversation as a joint process of discovery. However, this construction process was not perfectly equal because, I, as a researcher, focused on my research questions, although I stayed open-minded for any interesting and meaningful, relatively tangential topics. This approach was helpful to make sense of the uniqueness of each participant in their distinctive contexts. Rubin and Rubin (2012) emphasize the flexibility and unpredictability of the interview procedures as well as the subjectivity of participants, aligning with the main assumptions of critical realism. Even though this procedure allowed me to be flexible in adjusting the interview questions, I designed a topic guide which allowed me to make the gradual progression from an open framing (e.g., how did you come to this profession?) to a narrow and structured one (e.g., what are the external pressures in your school?) (see Appendix 7).

Interviews were mainly held after the observations to stimulate recall or to introduce additional prompts. However, this was not always possible, due to the schedule of the teachers' days. Quiet spaces were chosen for the interviews. They were all audio-recorded and transcribed by me. I listened to them again after a few days to generate a case summary for each participant. I consulted the first interviews after phase 3 to make sense of some of the narratives and to explore how they might relate to the teachers' understanding of curriculum. Because the first round of interviews was followed by two further phases, I always had an opportunity to follow up with some questions for clarification or exemplification.

4.3.2.3.1. The Internal Conversation Indicator (ICONI)

Data generated through the ICONI [27] (Appendix 8) constitute a part of the quantitative aspect of this research. The ICONI was developed by Archer (2008) to explore reflexivity as internal

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[27] *Margaret Archer just got back to me with her very detailed email saying 'I never put too much faith in ICONI', which I greatly agree. Though, I still think that I can use it as a sensitizing tool for myself. She also offered some tips for the interviews, such as doing the interview in teachers' own homes as there would be a lot of visual cues and clues, which unfortunately was not possible in my case. I am actually quite thrilled to receive some comments on my project from her!* (Diary, 08.03.2018)

conversation. It is a questionnaire with 13 items to identify the marked dominance of the mode of reflexivity. I utilized the ICONI to identify the teachers' potential dominant mode of reflexivity, which assisted my ongoing responsiveness and my reflexive procedures. More specifically, I used the results as a starting point, upon which I reflected, based on my empirical observations. Because the ICONI scores only increase the probability of being the dominant mode (Archer 2007), attribution of the dominant mode was finalised after analysing the interviews, observations and participant-produced reflective diaries.

4.3.2.3.2. Participant and non-participant observations

Phases 1 and 3 included observations as a complementary method, from which I generated qualitative data to gain enhanced access to the empirical domain of reality. The main reason for conducting observations was to grasp a better understanding of the contexts, which in turn assisted my sense-making process by enriching my knowledge of these contexts and also helped to stimulate recall in the interviews (Mason, 2002).

Drawing a fine line between participant and non-participant observation is difficult, and Gillham (2008) argues that no observation is non-participant if the observed are aware of the presence of a researcher. I am, therefore, conscious that my presence might have affected the observed actions or objects. However, in my study, I drew a line at my level of interaction within the research environment and also the degree to which my observations interfered with the flow of teaching. Hence, acting as an insider and participating in all activities with the teachers in the school environment, as in ethnography (Silverman, 2013), was not claimed in my observations.

I gained permission from the headteachers (see Appendix 3) to spend two full school days in each school in total, where I undertook both participant and non-participant observations. Non-participant observations were held within the classroom environment, where I sat at the back of the classroom and did not interact with the teacher and the pupils, apart from introducing myself, or if I was asked questions. I also employed participant observations through attending some meetings, engaging in lunchtime conversations, and often meeting with other teachers, if the time allowed, especially with headteachers. The data generated from these participant observations were recorded as part of my fieldnotes. The data from the fieldnotes were transferred to a Word document on the day of the observation. I relied on my notes, as I did not record any audio or video in schools. The observation guides (see Appendix 9) were helpful in guiding me where to focus as a starting point, but I always had additional instances to note. Nevertheless, I acknowledge two potential issues here: the limitations of what I can see and hear, and how I behave or am being treated (Silverman, 2013). The former refers to, for example, observing

artefacts in the corridors and hearing or observing conversations among staff (see Ball et al., 2012), while the latter relates to how I was introduced to the school members and how this relationship was maintained. In all settings, the teachers introduced me to other staff members as a PhD student, explaining my research, and the welcoming environment was maintained.

Observations were helpful for the aforementioned reasons, yet integrating these with interviews might be problematic (Silverman & Marvasti, 2008) in terms of the potential conflict between them. Because my intention was not to ensure validity but to increase the amount and range of information available and to prompt information in the interviews, this potential conflict did not apply to my research; on the contrary, it offered a rich texture of the social phenomena observed.

4.3.2.3.3. Participant-produced reflective diaries

Reflective diaries were produced by the teachers during Phase 2 (over at least 10 weeks), between my first and the final visit to the school. This enabled me to access the teachers' reflections on a range of activities during different times of a school term (e.g., examinations, inspection visits, etc.). That period also allowed me to listen to and transcribe the first interviews and perform an initial analysis with a complementary purpose in mind. I aimed to access insights into how the teachers make sense of situations (Alaszewski, 2006). Critical realism also enabled me, as a researcher, to scrutinise the data produced in reflective diaries, to access different aspects of the empirical domain, and also to examine 'what insight [the diaries] provide on realities external to the diary' (Alaszewski, 2006, p. 121). Additionally, reflective diaries were utilized as a tool in the process of identifying the dominant mode of reflexivity, which started with the ICONI. Some of the insights from the diaries were brought into the internal conversation interviews following some of the pointers in Archer's empirical research about the four modes of reflexivity.

Details about the structure and frequency of the diary entries, and the digital application within which the teachers generated their diaries, were negotiated at the first meeting. I had a suggested structure, including my aims as a starting point (see Appendix 6). I suggested using WhatsApp for generating more immediate thoughts and feelings. Digital technologies have started to emerge in the realm of reflective practice as they are accessible, immediate, and less time-consuming for participants (e.g., Motteram, Dawson, & Al-Masri, 2020). Two participants preferred to e-mail me as this was easier for them. As it is known to be challenging for teachers to remain motivated to maintain reflective diaries (Alaszewki, 2006), especially considering the busy school life of teachers, I was flexible in responding to the teachers' preferences. Additionally, the teachers were requested to keep these records private and secure and to ensure that their records were kept in

password-protected computers or phones. I used a separate phone from my personal one, where I saved the teachers' numbers using their designated pseudonyms.

Reflective diaries were produced, with entries varying in quantity and frequency among the participants (see Table 4.4). I often sent prompts derived from the internal conversation interview framework to keep the reflective diaries active. For example, I prompted the teachers on their concerns, priorities and ten mental activities (see next section). Some of these texts were unpacked in Phase 3 and were, therefore, helpful for designing the interview topic guide as a response to their experiences in Phase 2.

4.3.2.3.4. Internal conversation interviews

To explore internal conversations, Archer's (2003) suggestion of the ten mental activities was adapted for this study (see Appendix 10). Archer (2003) proposes that the point of an internal conversation interview is 'to identify inner mechanisms of thought on what is of most concern to subjects, according to their own definitions' (Archer, 2012, p. 159). As mentioned earlier, this view is supported by critical realism, which accounts for people's subjectivity and the fallibility of our knowledge.

The internal conversation interview consisted of three parts. The ten mental activities framed the first section, which was then followed by a discussion on the teachers' concerns about curriculum making. The ten mental activities, including planning, rehearsing, mulling-over, deciding, re-living, prioritising, imagining, clarifying, imaginary conversations, and budgeting were explored, and then these were further explored through asking for specific examples. Some prompts were also provided (e.g., imagining (what would happen if), as Archer (2003) suggests). As mentioned in the previous section, some of the activities were already referenced during Phase 2. The second part was related to the teachers' concerns about the curriculum, those which mattered most at that moment. Additionally, I prompted them about the trajectory of these concerns and whether they had time to think about how to address and/or realize them. This part was followed by asking about their future projects in curriculum and asking whether they had any other mental activities which were not mentioned during the interview.

4.3.2.3.5. Ego-network interviews

Following the introduction to the ego-network approach described in Chapter 3, this section will explain how the ego-network data were generated. I utilized a name generator, name interpreter and name inter-relator with visually aided methods (Robins, 2015) to generate ego-network data. These instruments (see Appendix 11 and Figure 4.3 for a brief illustration) were built upon

previously validated social network research (i.e., Coburn & Russell, 2008; Coburn et al., 2012), as well as including new items based on the research questions addressed.

The ego-network interviews began with a brief explanation of the purpose of the research activity and instructions on how to use the tools. Participants were not given a particular definition of curriculum or curriculum making and were asked to nominate people for their curriculum making network based on their own understanding of these concepts (Bellotti, 2016). This enabled me as a researcher to explore how conceptualizations of curriculum may shape the network dynamics. The name generator, in which quantitative and qualitative items were included, asked the teachers to nominate individuals based on the main question, that is: *In this term, with whom have you talked about curriculum for advice, with a question or concern, or just to talk something through about curriculum making?* Due to having limited time for interviews, I suggested starting with a maximum of 10 alters, as we would need to talk about each alter in detail. However, two participants wanted to nominate 11 alters, and I suggested starting with talking about these alters first, and, if other key actors were to be added, we could continue later.

After nominating people, the teachers then placed these names on the target (see Figure 4.3) according to their emotional closeness. The target is a visual technique where the ego places the alters, based on how (s)he feels emotionally close to them, on three concentric circles, which are titled as 'very close', 'less close' and 'not close'. The benefit of generating data using the target is to have a chance to explore to what extent and how emotional support might influence teachers' curriculum making practices. The target also enables teachers to construct and visualise their network during the interview and provides a chance for them to comment on their networks during and after the research activities. For example, Kyla said: 'Oh, this is exactly how it is, three neat components'. Also, Tim commented: 'I was not aware that these people are that important to me. I will take a picture and share it.' Additionally, the target stimulated further discussions on each alter and also on the overall network structure (Hogan, Carrasco, & Wellman, 2007).

The name interpreter consisted of questions to obtain further information about the alters and ties. Some of the questions were categorical (e.g., role), some of them were open-ended (e.g., the content of conversations), and some of them were in a scaled format (e.g., the strength of the relationship). The name interpreter asked the participants to connect their alters on the target if they knew one another, which gave a sense of the extent to which their network was connected.

1.Name generator	
2.Name interpreter	
3.Name inter-relator	
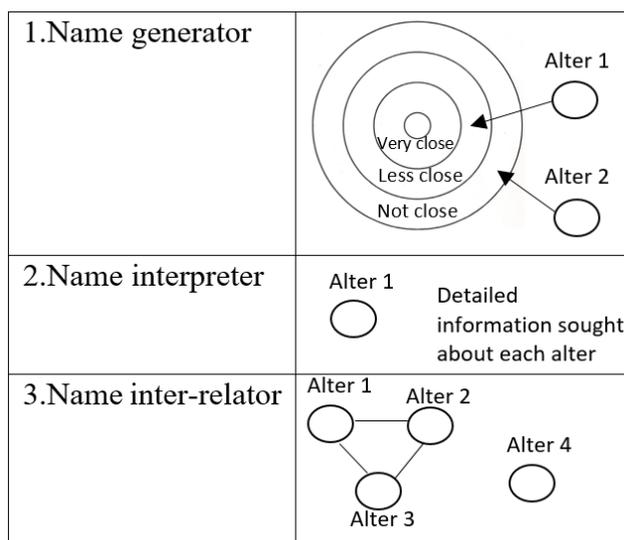
Figure 4.3. Ego-network data generation instruments

These instruments were useful, firstly because they offered an overview of the network structure, including alter and tie information, and secondly, they enabled me to generate narrative accounts of the meanings of these alters and ties, as well as in what ways the teachers mediated their curriculum making practices. Moreover, the quantitative items were helpful to compute some descriptive statistics, which were used as patterns to be explored in qualitative narratives and as starting points to discuss visualised network structures. They were also used to compare different structures and propose arguments relating to the other aspects of the research (e.g., internal conversation). Some limitations included the potential for respondent fatigue (Perry et al., 2018), which was mitigated by limiting the number of alters. Moreover, because these networks present a snapshot of teachers' perceived networks at that particular moment, there are questions around the degree of accuracy (Perry et al., 2018). Nevertheless, following a critical realist perspective, subjectively defined networks are still helpful for us to understand how they play a mediatory role in teachers' curriculum making practices.

Because this method required specialised and technical knowledge, I completed a module in Social Network Analysis to secure a sound basis of knowledge and practical skills to design, analyse and discuss an ego-network research. I had several meetings with the module coordinator to obtain advice on the structure of the instruments and data generation procedure, before piloting it. After I created the revised version, I piloted it with a colleague of mine who had worked as a Physics teacher in secondary schools and had some knowledge about ego-network research. This process provided at least two benefits for the later stages: a (former) teacher perspective (e.g., the practicality of questions); a methodological perspective on the process of data generation (e.g.,

prompting); and also, merging some items. The instruments were then amended after the pilot phase.

4.4. Data analysis

As previously mentioned, this research adopted a convergent mixed methods design and employed critical realism as a philosophical framework to make sense of data. As Creswell and Plano Clark (2017) assert, the ultimate aim of embedding different methods is to enhance our understanding of the observed social phenomena. Hence, data generated from each method were analysed individually and then merged to answer the research questions. The decision as to how to merge and interpret the integrated results was taken following a critical realist approach to data analysis as an overarching analytical process. One of the main purposes of the data analysis was to create a conceptual scheme to address the research questions in line with the philosophical positioning within which the research was situated. There are a limited number of studies (e.g., Edwards et al., 2014; Fletcher, 2017) providing substantial information about a critical realist approach to data analysis. Nevertheless, there is a tendency to suggest a flexible and hybrid data analysis strategy (Fletcher, 2017). In line with this suggestion, I have adapted Danermark et al.'s (2002) suggestion of the steps to follow during a critical realist data analysis (see Table 4.5).

Table 4.5. The outline of data analysis steps taken (adapted from Danermak et al., 2002, p. 109–110)

Domains of reality	Stages	The specific task for each stage	Examples from my research
Empirical domain	**Description**	Description of events or situations.	Generating a case study for each participant describing what I observed, what the teachers accounted for, what the ICONI indicated, how the networks were structured, and so forth.
	Analytical resolution	Distinguishing some of the components to be studied further.	Formulation of what counts as data by dissolving some of the aspects of the individual cases. An iterative process of reflecting on the intellectual puzzle.
Actual Domain	**Abduction**	Redescription or recontextualisation of the data in light of a conceptual framework, drawn from the literature and theory.	Each case was interpreted by thinking with the key theoretical constructs and a higher-order themes emerged at this stage.
	Retroduction	Clarifying the necessary conditions to create events observed.	Cross-case discussion occurred at this stage to identify why certain events might happen or not happen in specific contexts. For example, how the teachers' personal and contextual characteristics interact with each other.
Real domain	**Comparison between different theories and abstractions**	Elaborating on the explanatory power of underlying generative mechanisms that are identified as a result of abduction and retroduction.	Underlying generative mechanisms emerge in this stage to explain why teachers mediate curriculum making in different ways.
	Concretisation and contextualisation	Examining how different mechanisms manifest themselves in situations.	Formulating a mediation framework based on the analysis stages undertaken as a tool to understand how mechanisms unfold in certain contexts.

Table 4.5 illustrates the analytical journey I followed, although this was more iterative than presented in the table. There were several occasions where I re-listened to recordings, re-read the transcripts and revisited my own research diary. I shall now explain the analytical process in detail by providing a few examples from the data.

Before the description stage, I organized all raw research material, including interview recordings and fieldnotes in NVivo (a qualitative data management software), arranged into different folders. Each folder was labelled using the method (e.g., networks) I employed for individual teachers. This stage was followed by familiarizing myself with the nature and the content of the research material through (re)listening to the audio material, transcribing and reading the transcriptions several times. Mason (2002), whose methodological questions I followed in designing this research, suggests that transcriptions should not be seen as an objective record of the interviews. She asserts that they are partial, mostly because the transcriber cannot transcribe everything (e.g., non-verbal utterances) and, therefore, there must be decisions taken by the transcriber as to what (not) to write. At this stage, my intellectual puzzle, the literatures, and key theoretical constructs, operated as sensitising concepts (Patton, 2015) for description, and, later, for the analytical resolution stage.

I generated case summaries, categorising the research material by using some broad and specific indexes to illustrate where the particular type of information could be found. This was a useful strategy, considering the multistranded nature of the convergent mixed methods design. I used the data generation methods as broad indexes (e.g., observations, ego-network interview) and sub-indexes (e.g., the use of pedagogical approach, dense networks). The first case's (Joanne) indexes were used as a starting point to generate the indexes in other cases while attending to additional or much more comprehensive indexes. Quantitative data, the ICONI results, and the numerical ego-network data, were also included in the case studies. The ICONI was utilized to identify the potential dominant mode of reflexivity, as Archer (2007) indicates, the scores only increase the possibility of the dominant modes. The ICONI scores, therefore, were used for convenience. A score of 4 or above would assign the participants to one of the four categories, whichever was their highest score. Although the initial mode of reflexivity was recorded in the case summaries, it was an ongoing process to investigate the modes of reflexivity through complementing these with other data sources. Chapters 5, 7 and 8 make reference to the ICONI scores.

The ego-network analysis was informed by Bellotti (2015), Borgatti and Ofem (2010) and Perry et al. (2018). Before the analysis was performed, it was crucial to organize network data to process

it in NetDraw, a network visualisation tool in UCINET software. I created a node-list (including all ego-alter ties), edge-list (illustrating alter-alter ties), and adjacency matrix (the rows were assigned to alters and columns were assigned to the categorical variables (e.g., years of experience, subject background)) for each teacher. Categorical variables were coded by assigning numbers (e.g., Female: 1 and Male: 2). An illustrative example is provided in Appendix 12. At the first stage, each case summary included a visualisation of the network and data about categorical variables. These were then subject to different levels of analysis. For example, descriptive statistics at the ego and alter level and compositional measures at the network level were computed.

More specifically, I examined the structural characteristics, such as density, ego-betweenness, size of the network and effective size. Density refers to the degree of the connectedness of the alters in a network (Perry et al., 2018). The value of density ranges between 0 to 1, the latter indicating the highest density. For example, if all alters in an ego-network are connected, the density measure would be 1. Ego betweenness is a measurement of the centrality of egos in their network which indicates the position of the ego and shows the extent to which alters are dependent on the ego to reach other alters. The value of the ego's betweenness would be zero if all alters already connected to each other. The size of the network refers to the number of alters in the network. Effective size refers to the number of non-redundant alters to whom the ego is connected, in other words, it indicates a number of different 'pockets' of information that the ego has access to. I have offered a detailed analysis of the two cases which were situated at the two ends of these values to explore what these structural measurements may mean in the context of curriculum making.

I then looked at compositional characteristics to examine how similarity and diversity played out in curriculum making networks. This process started with the categorical variables I asked during data generation, such as gender and years of experience, and then continued with the emerging themes as a proxy to explore the compositional characteristics of the networks. After reading more about institutionally mediated ties (Small, 2017) and engaging with network researchers, I have decided to operationalize homophily differently. Rather than looking at the raw data about each variable to speculate about homophily, I looked at choice homophily (McPherson & Smith-Lovin, 1987), meaning that the choice of forming ties can be attributed to the individual's preferences. This was followed by exploring the content of curriculum making networks to identify what flows and what might be missing in the networks. The next stages in the ego-network analysis involved examining the quality of the network ties and the influence of the alters in curriculum making. First, some basic descriptive computational analysis was completed to reveal any potential patterns which were then explored in depth by drawing from mainly the network

interview data. Chapter 6 presents detailed insights about the teachers' external conversations by drawing upon this analysis.

After generating a case summary for each teacher, I started to redescribe the data through thinking with the conceptual framework (see Appendix 1). The abduction stage led to a list of emerging themes and sub-themes to illustrate a range of thoughts, meanings, and experiences, which were linked with indexes. I worked manually on an A3 page for each participant at this stage before recording the analytical journey in NVivo. I divided the paper into 5 sections, using the broad indexes, and included potential themes in each section. For example, the meanings that the teachers attributed to the concept of the curriculum was captured by using Kelly's (2004) distinction of different starting points for curriculum making. Moreover, this stage was where the dominant modes of reflexivity emerged. An extract is provided for the illustrative purpose of Joanne's internal conversation interview (see Table 4.6).

Table 4.6. Extract from data analysis

Quotations from internal conversation interview	Notes from the abduction stage
Deciding: I am able to make decisions for myself without outside input but quite often we sometimes need to discuss or debate with others and wait for somebody else to make our decisions. *Budgeting: I do have internal conversations about whether I can afford the time or whether it is worth to effort. We have had discussions recently on how much feedback you write in a piece of homework. Is it worth the time to give that individual feedback or would you better to have one of the whole-class conversations and pick up on the key points so I think I have certainly a balance of these things. If it is a time of the year where we don't have so many things going on, maybe I would write individual feedback. (Joanne – internal conversation interview)*	• Traces for autonomous mode for individual actions – collective tasks and/or hierarchical structure may impede on this • Inner talk on her concerns: feedback, a lack of time • Decision-making depending on time management and contextual factors • Traces for meta-reflexivity – self-projection

Internal conversation analysis was informed by posing a number of questions derived from related literature (Archer, 2003; Chalari, 2017). These questions included:

- What is the struggle/conflict/challenge for teachers in curriculum making that teachers are concerned about?

- What are the mental activities related to curriculum making? Do all teachers engage in the ten mental activities? Are they any other activities that inner-talks are devoted?

- Do different teachers devote their inner talk to different matters? Do different modes of reflexivity help to explain different curriculum making practices? If so, how?

- What may foster and obstruct inner talks related to curriculum making?

- In what ways are the internal conversations related to external conversations?

Overall, there were three main areas that internal conversation interviews exposed. First was the range of deliberative activities that the teachers engaged in related to curriculum making. This aspect was addressed using the ten mental activities Archer (2003) proposed in investigating internal conversations. The second was related to the teachers' main concerns and what matters to them most during the data generation period. The final one referred to the ways in which they projected current and future actions. Some of the areas were also mentioned in other data sources, such as in reflective diaries, when reflecting on in the first interviews. Because these data generation activities occurred before the internal conversation interview, I brought some themes to discuss further for either clarification or to obtain more details and examples for explaining the internal conversations in greater depth. Chapters 7 and 8 will draw upon internal conversation analysis. In this stage, I had started to note similarities and differences between cases. For example, some teachers strategically sought assessment-related advice as part of their curriculum making network, while some others did not. I then began to question what conditions might create the practices that I observed. More specifically, I explored what made the teachers act in different ways under similar conditions (e.g., the same curriculum, the same hierarchical secondary school structures, the same examination system, etc.). I drew upon Archer's (2007) personal, cultural and structural emergent properties to start the retroduction phase and to explore how these properties interacted for each person in their specific circumstances. Although all empirical chapters signpost these properties, Chapter 8 offers a detailed description. Drawing on Archer's (1995) argument that the emergent properties interact in certain ways and influence whether there is a change (morphogenesis) or a non-change (morphostasis), for example, in the ways that curriculum is mediated by teachers, I extrapolated the possibility of morphogenesis or morphostasis. A change may occur at the structural, cultural and personal level or as a combination of these by transforming or elaborating the pertaining properties (Archer, 1995). In the case of non-change, we may see the reproduction of social circumstances. This analytical separation is helpful to offer more nuanced and particular characteristics of certain ways of

curriculum mediation that may lead to different forms of change. Additionally, this helps to reveal why there might be non-change in that particular context.

As identifying underlying generative mechanisms is seen as the ultimate aim of social research following a critical realist approach (Danermark et al., 2002), some potential generative mechanisms emerged throughout different stages of my analytical journey and at the final stage. My aim was to identify the ones which have the most explanatory power. Chapter 9 provides extensive information about these mechanisms and describes how they manifest themselves in different curriculum making practices. The final stage was formulating an analytical and conceptual framework to examine the mediation of curriculum making in relation to internal and external conversations, which is adapted from Chalari (2007, 2017) and derived from the empirical data drawn from my research.

4.5. Ethical considerations

Throughout the research process, I have complied with the ethical guidelines of the British Educational Research Association (BERA) (2018) and I secured the University of Stirling's General University Ethics Panel's approval for the research (Appendices 4–5). Here I address potential ethical issues and some precautions and approaches that I have taken to minimise risks and protect participants.

Personal interviews, observation of teaching, participant-produced reflective diaries and collecting network data can potentially disclose some records about the identity of participants, their schools, and colleagues. This is an ethical consideration for several reasons. First, considering the hierarchical organization of secondary schools and the power relationships between the senior management team and teachers, the identification of teachers would put them at risk of facing challenging tensions if they were known to criticize management practices. Second, the teachers named colleagues and alters who did not directly provide their consent to be included in this research. While it is not possible to completely guarantee the anonymity of participants, reasonable steps were taken to ensure non-traceability and confidentiality. For example, participants were assigned pseudonyms, general descriptions of the school were carefully presented not to divulge unique characteristics, and quotations were sensitively selected so as not to present controversial comments or comments that would identify their schools. I was especially cautious when collecting network data; following Robins' (2015) suggestions, the names in the network were coded with untraceable identification numbers and visualisation of the network was conducted by excluding the names of the participant and their contacts.

Third, I carefully considered how much information participants were given in order to obtain their consent to participate in the research and ensured that the consent was ongoing during the project. This is because research activities require teachers to spend time and offer personal and professional insights and, therefore, they have the right to receive detailed information about the study before they make their decisions to take part. Hence, in addition to the information booklets sent to the local authorities (see Appendices 3–6), headteachers and teachers, participants were also informed about the research aims, what the research entailed, how much of their time they would have to give, and my expectations from them at each stage before the research activities commenced, both by email and in person during the first meeting. Considering the already high workload of the participants, it was particularly important to make all research activities and my expectations very clear at the beginning to help them make their decisions. Participants were also informed about the withdrawal procedures, stating that they could withdraw from the study at any time without providing a reason. Obtaining informed consent was considered an ongoing process (BERA, 2018).

Fourth, raw research data, including recordings and hard copies, as well as my research notes, included some information about the participants. Hard copies were kept in a locked filing cabinet in my locked office. Electronic data were transferred to a secure university server, the Research Drive, to which only I have access with my credentials. The Excel spreadsheet with the participants' information and their pseudonyms was also kept on the Research Drive, to further minimise the risk of identifying the participants. As for data storage, following the General Data Protection Regulation (GDPR) and University policy, all copies of data will, after 10 years following the final day of the study, be securely deleted or shredded.

4.6. Rigour and quality of the research

To ensure the rigour and quality of my research, the following steps were taken, considering the notions of transparency (Bryman, 2004), design quality, and interpretive rigour (Tashakkori & Teddlie, 2008), as they are often used in mixed methods research.

- *Transparency:* Information about participants and how they were selected, mixed methods procedures and how they complemented each other, critical data analysis stages, and illustrative examples are explained clearly throughout the thesis. Several appendices are provided as supplementary material to illustrate the steps I had taken. Moreover, quotations from participants were provided when necessary and these help to evidence and strengthen the arguments I present.

- *Design quality:* The design of the research was informed by mapping the literatures and also by conducting a pilot study. Expert views were sought about data generation instruments and these were constructed by drawing on some seminal work in this field. The ICONI is a previously validated instrument (Archer, 2007) and other instruments were constructed drawing upon related literature. Ego-network data generation was piloted before beginning the main study. Each step was designed to answer the research questions, and their complementarity was explained throughout.
- *Interpretive rigour:* Data analysis was informed by a critical realist perspective by utilizing certain theoretical constructs to make inferences about the data. I illustrated this stage by following Danermark et al.'s (2002) steps, and some of the parts were scrutinized by my supervisors. I also demonstrate my own researcher reflexivity by providing extracts from my researcher diary to make my subjectivity and sense-making explicit for the reader.

4.7. Limitations of the research

So far, I have mentioned some of the limitations pertaining to the specific methods that I used in my research. Overall, considering the nature of this study and the philosophical framework I employed, I have no claims to make empirical generalizations. In other words, findings cannot be generalized into a broader population of secondary school teachers in Scotland and Wales. Informed by the critical realist framework, I instead intend to offer theoretical generalizations (Danermark et al., 2002; Mason, 2002). In so doing, my research provides rich theoretical propositions, which explain the observable events about the questions of why and how teachers mediate curriculum making in different ways, and also proposes a conceptual and analytical framework with which to understand this mediation in different contexts.

As mentioned in the recruitment section (Section 4.3.2.1.), it was not possible to enlist a greater number of participants in Wales. Nevertheless, my research does not simply make stark comparisons between the two contexts. I am cognisant of the differences between schools, even within the same local area. Hence, I aim to present a range of contextual factors as well as individual factors and to understand how these factors interact to manifest in various curriculum making practices. In doing so, I still acknowledge that there are certain structural and cultural characteristics particular to each country, as explained in Chapter 2.

Conclusion

In this chapter, I aimed to detail my methodological journey, starting with my reflexivity and my understanding of critical realism as the philosophical framework. After setting out the research questions, I outlined and detailed the research activities, which fell into three phases. Data analysis procedures were explained by following a critical realist approach and some illustrative examples were provided from the data. I offered some reflections on the quality of my research and some potential limitations. The next five chapters will draw upon the findings of my research, commencing with the case summaries for each teacher in the next chapter.

Chapter 5. Introduction of Eight Cases

Chapter 5 Outline

In this chapter, I shall provide case summaries for each teacher, accompanied by extracts from my researcher diary to illustrate my impression of the teacher, to lay a foundation for cross-case discussions in the subsequent empirical chapters. As explained in the previous chapter, eight secondary school teachers, with different subject specialisms, participated in my research. These were recruited following a convenience sampling strategy. This chapter aims to situate each case within this research by outlining each teacher's professional background, reflexivity and networks. The first section in each case summary will include some information about the teachers' professional profiles, the contexts in which they work, their understanding of curriculum, and associated concerns. This will be followed by some notable features of their networks. Further, the reflexivity-related data will be presented briefly. The first six teachers, Joanne, Erica, Tim, Heather, Ashley and Kyla, worked in Scotland, while Rosy and Karen worked in Wales.

5.1. Joanne[28]

Joanne, a Chemistry teacher, worked four days a week at the time of the research. Her school was in an affluent area, and she perceived a positive and supportive climate amongst teachers, students and the Senior Leadership Team (SLT) members in her school. The school encouraged teachers to undertake professional development, curriculum work and trialling new initiatives and, thus, in-school relationships were perceived to be nurturing and trusting.

Her teaching career began during the 5–14 curriculum (SOED, 1993), before having a break for a few years due to a high level of stress of working in a private school. She returned to teaching after Curriculum for Excellence (CfE) was implemented in 2010; a curriculum which she perceived to be less well-resourced compared to the 5–14 curriculum. She described teaching and learning Chemistry by emphasizing the affective and social dimensions of learning, such as how students feel about the subject, learning environments and themselves, signalling the Learner-Centred ideology (Schiro, 2013).

Her understanding of curriculum reflected all the three dimensions of Kelly's (2004) curriculum making typology: content (emphasis on selection of content), product (emphasis on measurable

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[28] *Joanne seems to have great communication with her students and shows how much she cares about their feeling and learning during her classes. I felt very welcomed in this school and everybody, including the headteacher and faculty head, appeared to be very interested in my research.* (Diary, 12.09.2018)

achievement outcomes/learning objectives), and process (emphasis on the principles, values and big purposes of education). Curriculum making was mostly perceived as adapting the old practices to meet Experiences and Outcomes (Es and Os; see Chapter 2), considering what worked and what did not. Insight data (Scottish Government, 2019) and attainment levels were highly influential in this process, as were her interest in pedagogical approaches (e.g., play-based learning). Her concerns related to the curriculum were time management, a lack of collaboration at macro and meso sites, attainment levels, examinations, curriculum provision, multi-level teaching and, particularly, S3 and S4[29] curriculum making practices (in the transition from Broad General Education (BGE) to senior level).

Joanne's curriculum making network (Figure 5.1) illustrates in-school and beyond-school ties, as represented by the colour of the nodes, as well as information about the alters' professional statuses. Joanne's network exemplifies a network dominated by teachers and her immediate colleagues with a lack of ties beyond school or subject boundaries. The network has a moderate density (0.46), which can be observed from her position, which connects her colleagues to beyond-school ties.
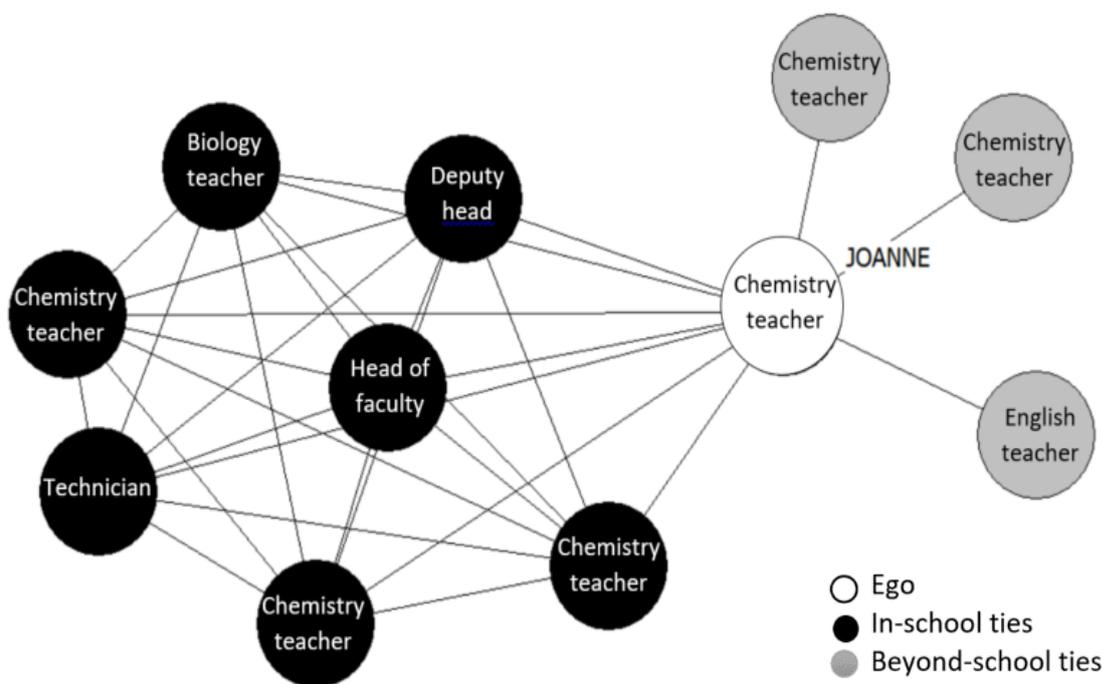
Figure 5.1. Joanne's curriculum making network

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[29] S3 is the third year in secondary schools in Scotland and is the final year of Broad General Education. S4 is the first year in senior level where students are officialy expected to start to sit for National examinations.

Joanne's Internal Conversation Indicator (ICONI) score marked the dominance of autonomous and meta-reflexivity to the same degree (5.6. out of 7). The way in which she contemplated curriculum making and her practices, for example, self-questioning and self-monitoring, illustrated her primary mode as meta-reflexivity most of the time. However, there were other times, for example, when the Insight Data (a benchmarking tool for attainment levels, see Chapter 2) made it difficult to sustain meta-reflexivity practices and she had suspended her primary mode, particularly before the exam period and during senior-level curriculum making practices.

Her internal and external conversations regarding curriculum making situated Joanne in this research as a teacher who held critical and reflective internal conversations about curriculum, but felt under pressure due to the performativity culture, so she followed some instrumental practices when required. Her voluntary and informal attempts to develop her professional network were obstructed due to time constraints and accountability pressures.

5.2. Erica[30]

Erica was a part-time History teacher, with 11 years' experience following her probationer year in the same school. The school had several facilities for subject departments and was located in one of the most deprived areas in Scotland. Erica had an emotional attachment to her school, as evidenced in her comments. She was proud of her school and felt supported in a positive teaching and learning environment.

Her concerns about curriculum included Scottish Qualification Association (SQA) arrangements, BGE assessments, accountability practices, time-management, and students' progress tracking system. She mainly prioritised meeting standards and benchmarks in her curriculum making practice. She believed History teaching was imperative, for everyone not to repeat the same mistakes of the past, and to learn heritage to appreciate the architecture and culture around us. She was interested in active learning and extra-curricular activities (e.g., field-trips) which she believed helped her to be promoted to disseminate good practices within her school.

She perceived curriculum as a way for students to obtain National Qualifications, emphasizing the product aspect of curriculum making (Kelly, 2004) and signalling the Social Efficiency ideology (Schiro, 2013), whilst indicating a specific focus on the measurable outcomes. Similar to most of the participants from Scotland, the Benchmarks and Es and Os were the planning tools used in

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[30] *Erica seems to be very proud of her school, probably because she has been there for a long time now and she is not planning to leave anytime soon. I had an impression that she is very emotional, ambitious, and very focused on her achievements.* (Diary, 13.09.2018)

designing and evaluating the curriculum. She thought that curriculum making was not recognised and praised in job interviews or in career progression.

Erica's curriculum making network (Figure 5.2) illustrates an example of the dominance of alters who were teachers with the same subject background. Her beyond-school ties were connected to some of the in-school ties. She was strategic in forming beyond-school ties to address her assessment-related concerns, especially with people linked to the SQA.
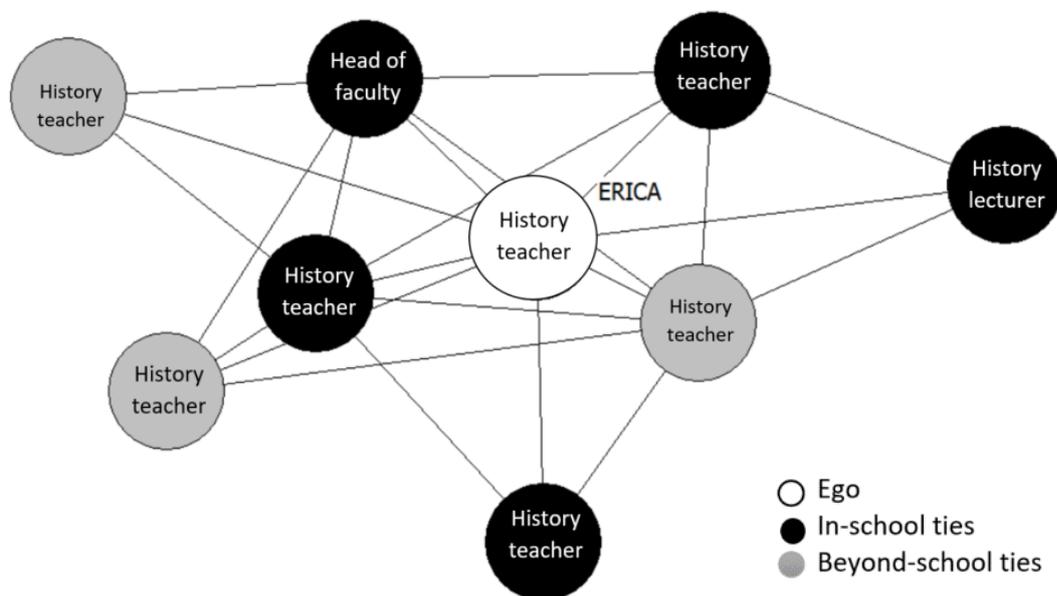
Figure 5.2. Erica's curriculum making network

The main purpose for having internal conversations was quality control, not only to meet her standards but also her colleagues' standards. The texture of these conversations was mostly instrumental. Erica recorded a 5.6 for autonomous reflexivity and the qualitative data confirmed that she primarily practised autonomous reflexivity at that time. She will be presented as an example of how the primary mode of autonomous reflexivity manifests in curriculum making practices in distinctive ways in Chapter 8.

5.3. Tim[31]

Tim, a secondary school teacher specialising in Chemistry and Biology, predominantly taught Chemistry for 30 years. He envisaged the teaching profession as an amalgamation of theoretical, active, intellectual, practical, and also unpredictable work. He also perceived his subject as a mixture of literacy, numeracy, practical thought and 'powerful knowledge' on how our world functions. He read academic research and curriculum policy documents in great detail, which was evidenced through him referencing them when relevant during both interviews and in classroom practices.

He had experienced the 5–14 curriculum (SOED, 1993), which he argued to be more knowledge-based, structured and well-resourced, compared to CfE. Even though his initial impressions about CfE were positive, he felt disappointed and frustrated with the subsequent developments, mainly due to a lack of rationale and fitness for purpose, empirical evidence, resource, and increased workload for teachers. His engagement with academic readings and scholars were philosophically satisfactory but were perceived as inapplicable to most of his school practices due to a lack of support and mixed messages between different sites of curriculum making.

He saw curriculum making as course development, which mainly involved creating the units coherently using purposeful pedagogy and pedagogical approaches supported with empirical evidence. Tim was the only teacher in this research who underlined the importance of empirical evidence in curriculum making. His understanding reflected some aspects of the three dimensions of Kelly's (2004) model, but gave more weight to the content and process by focusing on subject matter knowledge, indicating the Scholar Academic ideology (Schiro, 2013), and the process of learning.

His school, where good relationships with the students and behaviours were mentioned to be valued, was in a deprived area, although geographically very close to the least deprived areas. The school was perceived by the community and teachers to be well run for many years, referring to the academic achievements. The school had an inspection during my data generation period and Tim commented on how 'boastful language' was used to hide actual practices, which was 'gaming' the inspectorate. This was one of the conflicts he had difficulties in resolving. He was also concerned about the BGE curricula, especially the S3 curriculum, where some of the

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[31] *I am so glad that Tim participates also in the main study because his way of thinking challenges me to ask difficult questions to myself and offer a new lens to look at what other teachers say and do, and why something happens in one context and not in another.* (Diary, 10.10.2018)

aforementioned games were particularly evident; this will be discussed in more detail in Chapter 6. Working in a hierarchical system, a lack of coherence in curriculum documents and policy and a deficit model of the profession were among his concerns. After long years of experience in teaching, and being ill at one point, his future aspirations were not particularly optimistic.

Tim's curriculum making network (Figure 5.3) is noticeably different compared to others, as it includes academics and more beyond-schools ties than in-school ties. He presents an example of how a knowledgeable, research-oriented and critical teacher mediated curriculum making practices in relation to his fractured mode of reflexivity and a network with low density, low level of strength and influence, but with a high level of trust.
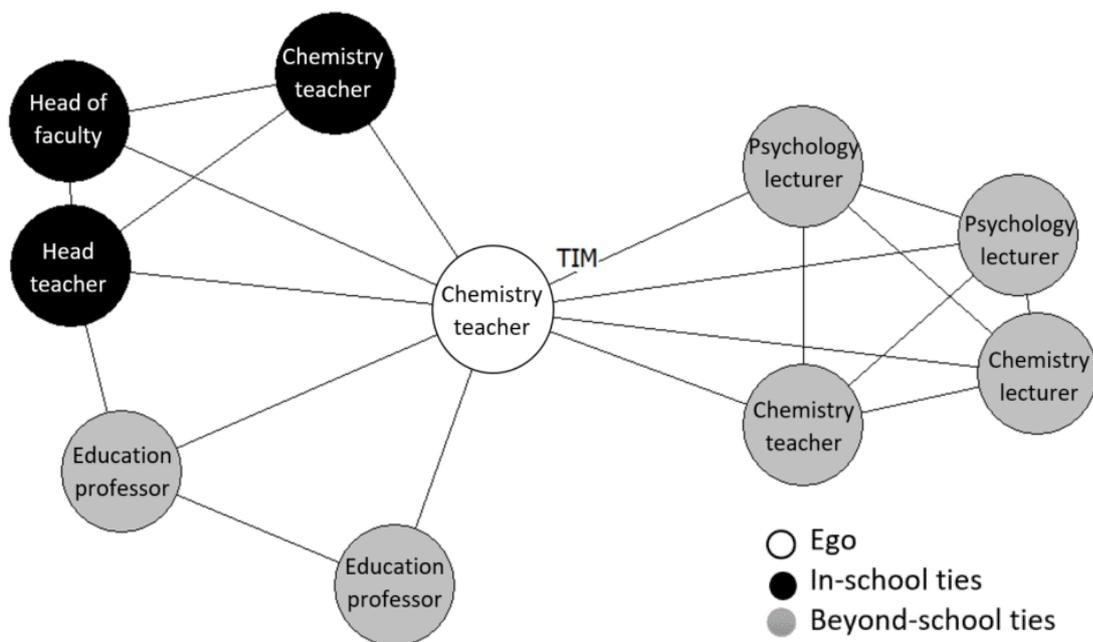
Figure 5.3. Tim's curriculum making network

Tim recorded at least a 4 and above in each category in the ICONI, having a 4.3 on the fractured mode. Because the texture of the qualitative data confirmed this result at that time, I shall draw upon Tim's case to shed light on how a fractured modality manifests in curriculum making practices in distinctive ways in Chapter 8.

5.4. Heather[32]

Heather had been working as a Design and Technology teacher for seven years and was promoted as the Principal Teacher of Developing the Young Workforce in her current school. She was doing her Master's in Education, although there was no reference to how this was linked to curriculum making in the data. The school was in one of the least deprived areas in Scotland and also had a vocational training centre, which she managed with a colleague. The school was well resourced and perceived as academically successful, according to the Insight Data referred to by Heather. Some of the relationships within the technical department and the faculty were perceived to be not very strong. In fact, there was one negative tie which is illustrated with a dashed line in Figure 5.4 below. She believed that she had not found her 'like-minded' colleagues yet.

She thought that Design and Technology subject covered several areas, which made her curriculum making practices difficult. According to her, the primary aim was to develop 21st-century skills reflecting supra and macro curriculum discourses and signalling the Social Efficiency ideology (Schiro, 2013). She considered curriculum as a vehicle to achieve this end. Because she started teaching after CfE was introduced, her only experience was of CfE and she was mostly positive about the flexibility she had in curriculum making, which suited her and students. Similar to others, she used Es and Os to start curriculum making to meet the standards. Her practice referenced a mixture of product (emphasis on Es and Os), process (considering 21st century skills as a broad vision), and content (choosing relevant content areas) aspects of curriculum making (Kelly, 2004). At the time of the research, she was concerned about senior-level curriculum planning and assessment, BGE curriculum and meeting Benchmarks (particularly S3 curriculum) and skills-based teaching. She was critical of the exam changes and a lack of communication across the stakeholders.

Looking at her curriculum making network (Figure 5.4), the majority of her alters were in-school ties and one beyond-school tie was also formed as a result of a school-related project. Thus, this network represents an example where the colleagues form the dominant component of the network and a lack of beyond-school and subject boundaries ties is observed. Some of the tensions in the department, a perceived negative relationship and a lack of collaboration, were also notable

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[32] *It was an interesting experience to navigate the interview as she seemed a bit reticent, so I had to be more directive and come up with some prompts. It is one of the moments I felt that I had limited insights about the subject itself which might influence the dynamics of the interview.* (Diary, 26.10.2018)

features of her network, which demonstrated the influence of subjective meanings attached to the alters and relationships.
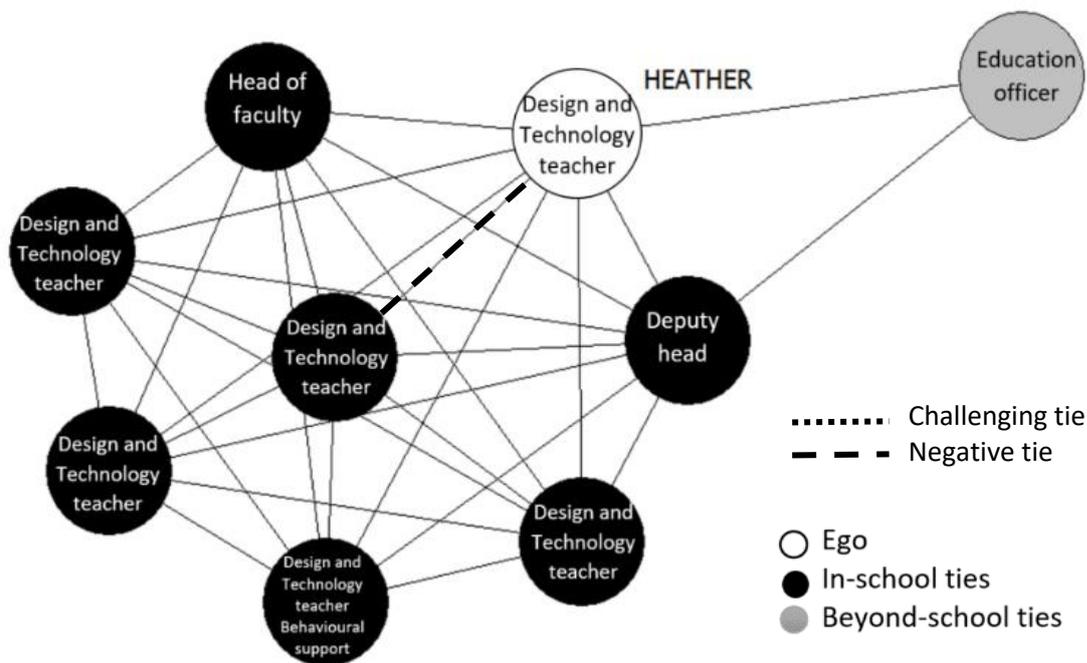
Figure 5.4. Heather's curriculum making network

Heather's internal conversations reflected her major concerns and interests, similar to others. Her ICONI result illustrated that she practised meta-reflexivity as her dominant mode with a score of 5, and her autonomous reflexivity score was 4.3 out of 7. Like Joanne, she exhibited autonomous reflexivity when the accountability pressures are perceived to be high, and the critical side of her meta-reflexivity mode was suspended at most times, due to the performativity culture of the school. Overall, her case illustrates an example of how negative sentiments attached to the alters, especially with in-school ties, may hinder curriculum making practices.

5.5. Ashley[33]

Ashley was a History teacher with nine years of experience, three of which were in her current school. The school had a reputation for establishing good relationships between students and teachers, with high attainment levels, in an area where there was a noticeable contrast in terms

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[33] *Ashley's love of history and her being proud of 'her' exam results in the assessments came across during the interview. What struck me most in her practice was the explicit use of marking scheme. Is this a result of performativity pressures? Or is it because her way of understanding of 'good' curriculum making?* (Diary, 08.11.2018)

of deprivation levels. Despite this positive reputation, Ashley perceived a negative relationship with the Head of Faculty, which had an impact on the climate in the department.

She mentioned that one of the ultimate purposes of teaching History was providing 21st century skills needed for work and life, employing CfE language and indicating a Social Efficiency ideology (Schrio, 2013). She conceptualized curriculum as a framework for teachers to come up with units of subjects for students which she enjoyed preparing. Benchmarks were the major element of that framework and she used the Es and Os less in her curriculum making. Her interest lay in the content (choosing topics/themes) and product (paying special attention to Insight Data) aspects of curriculum making (Kelly, 2004). She was also critical that promotion in schools was not dependent on how good your curriculum was, but instead, teachers were praised for engaging in whole-school projects such as field trips. She fundamentally agreed with the main tenets of CfE, although disagreed with how it has been implemented, mainly due to high expectations being placed on teachers and exam changes without perceived adequate communication.

Ashley's curriculum making network (Figure 5.5), similar to Erica's, had alters with mainly History background, having a primary purpose of seeking subject and assessment-related expertise. Even though she had beyond-school ties, including her probationer students, she had no connections with people with different subject backgrounds beyond her school. One of the important aspects of her network was the existence of a negative relationship and how it affected her job-satisfaction and her curriculum making practices. Her network was one of the least strong and trusted networks.
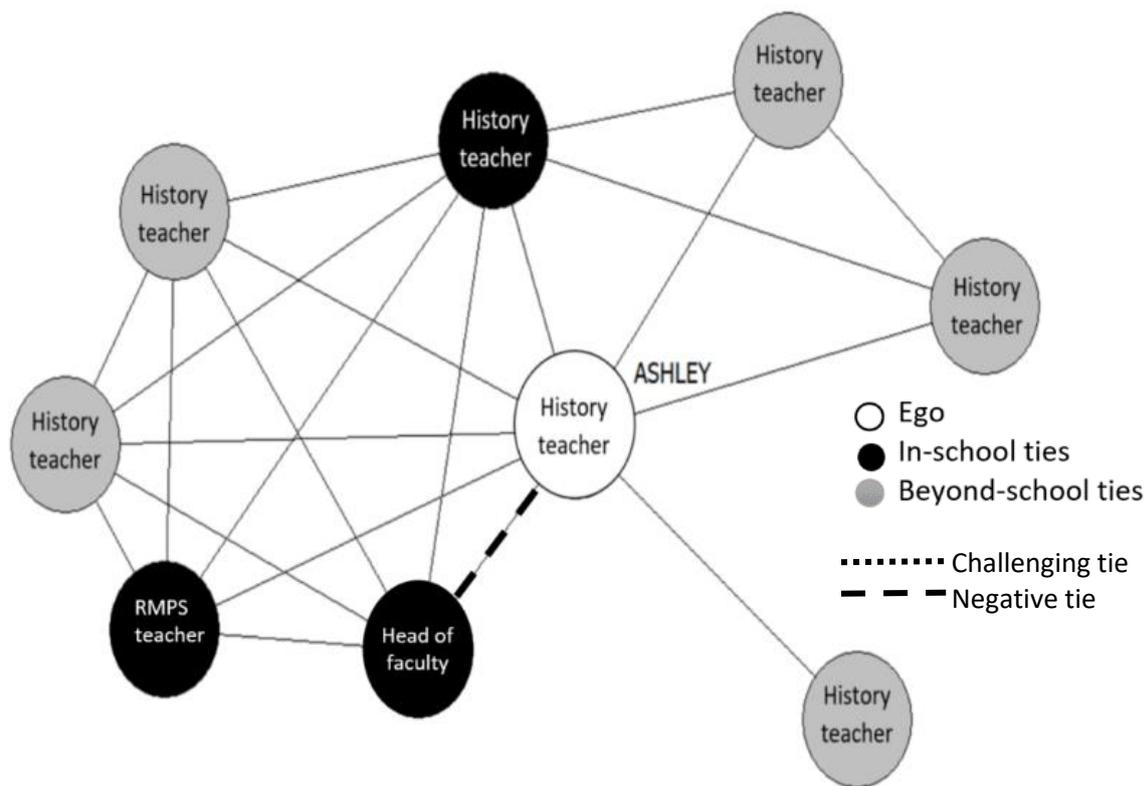
Figure 5.5. Ashley's curriculum making network

As for internal conversations, she thought that the ten mental activities were similar to the forms of curriculum making activities, and subject- and assessment-related issues prompted her internal conversations. She recorded a 6.3 out of 7 on autonomous reflexivity and the texture of her narrative signalled that her primary mode was autonomous reflexivity with some traces of fractured modality, due to the difficult events that happened during the data generation period.

Ashley's case is important for at least two reasons. It illustrated the significance of the leadership of Head of Faculty and how a negative tie can hinder curriculum making practices and potentially lead to teacher attrition. Secondly, Ashley's case was the only example where local authority support was evident, although it stayed as instrumental.

5.6. Kyla[34]

Kyla had 11 years of experience as an English teacher with a Master's degree in Education. She spent two years in her current school, with prior experience in the Highlands, where she reported

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[34] *Kyla seems to be a cheerful, eloquent, caring and knowledgeable teacher. I realized that her expectation of respect and community are not actualised in her current school, and sadly, she is leaving the profession to become a humanist celebrant. Such a morphogenesis!* (Diary, 26.11.2018)

that she felt a stronger sense of community. She commented that her current school, located in an affluent area, had a reputation for being an academic school, meaning that the attainment levels were high, which brought some pressures, including parental expectations. Her faculty had a supportive and sharing culture, however, she felt a disconnection between SLT members and teachers, as a result of a perceived lack of vision in the school and too much attention to academic achievements.

She underlined affective, cognitive and social dimensions of teaching English and was passionate about her subject. As such, she voluntarily organized lunch clubs and drop-in sessions for promoting equity, indicating some marks of the Social Reconstructionist ideology (Schiro, 2013). She explained the extent to which the performativity pressures impacted her curriculum making practices. There was another disconnection, between the national expectations she thought CfE envisaged and her day-to-day practices. Her interest in creativity in curriculum making and focusing social and relational aspects of education alongside the pressure to maintain the expected standards and attainment levels proved hard to sustain and she was considering leaving the profession. In addition to such concerns, engaging in developing the new Drama curriculum with her colleague and her lack of motivation were additional concerns that she held at the time of research.

Kyla's curriculum making network (Figure 5.6) illustrates three separate components, which she connected in her curriculum making practices. One of the prominent features of her network was six alters (out of 11) who were neither from her subject nor school. This was partly to address her interests and concerns in curriculum making through informal channels and also a need to create her own community, which she felt did not exist in her school environment. As a result, she had the lowest density in her network, enabling her to potentially access a variety of information.
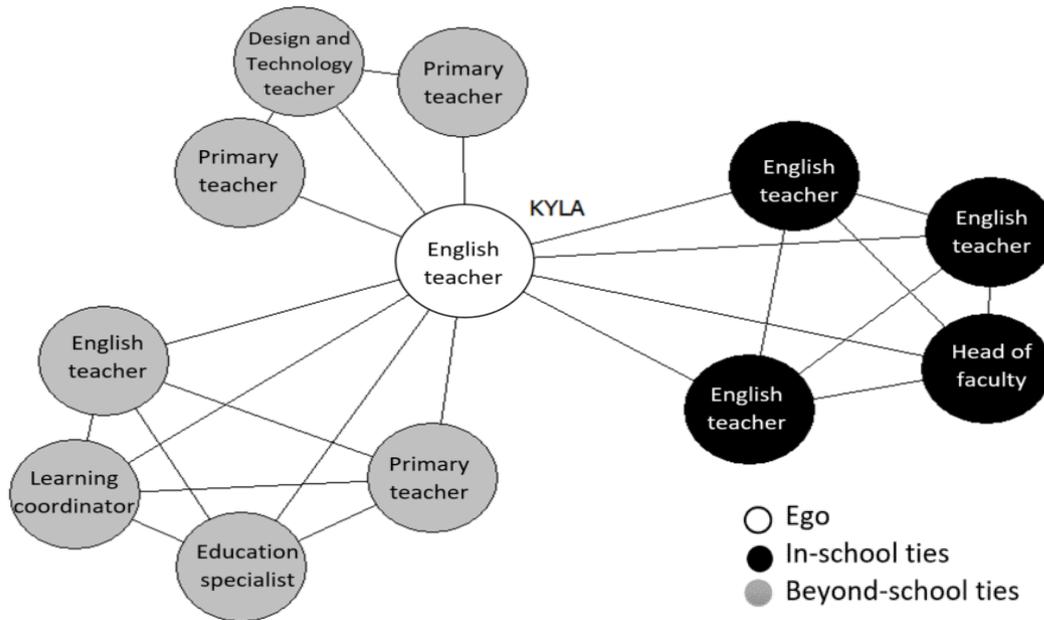
Figure 5.6. Kyla's curriculum making network

Kyla will be presented in Chapter 8 as an example of a teacher who practised meta-reflexivity as her primary mode. She recorded a 6.3 on meta-reflexivity category out of 7. Kyla's narrative and her journey as a teacher exemplifies a case where *modus vivendi* (sustainable and satisfactory level of success in curriculum making; see Chapter 3) was redesigned instead of compliance with policy and national expectations.

5.7. Rosy[35]

Rosy has been a Biology teacher for 19 years, and, during that time, held several leadership roles, such as the Head of Faculty. At the time of my research, she was the Curriculum Lead, Assistant Head and was also teaching Biology. The school was located in one of the least deprived areas in Wales. Rosy noted the non-hierarchical relations established through curriculum making and that there was a good degree of consensus on the direction taken within the school.

She felt passionate about her subject, and shared this passion with her colleagues to inspire students and make a difference. On the other hand, holding several roles brought some challenges and frustrations at times. She approached curriculum from a wider perspective and commented

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[35] *After a very long journey, I feel extremely thrilled by intensive and meaningful curriculum talks with Rosy. She is very proud of the school's ongoing curriculum work and she wanted me to offer some ideas for their future directions. For the first time ever, I was not the only one who was taking notes! This made me question how co-research would look like in curriculum field? (Diary, 14.02.2019)*

on what, why and how questions about education, and curriculum in particular. She primarily commented on the process aspect of curriculum making, more than content and product (Kelly, 2004). She paid particular attention to the students' needs, interests and their learning journeys, signalling the Learner-Centred ideology (Schiro, 2013). She admitted that this perspective was shaped significantly after the new curriculum reform through her engagement within local curriculum meetings. She had a clear idea of the rationale of the curriculum change and steps to be taken in the context of her school and she was fully supportive of the new direction in Wales.

She was mainly concerned about timetabling, mediating between the sixth form curriculum and school practices, and trying to accommodate her colleagues' needs and requests while organizing well-focused and meaningful curriculum meetings and workshops with staff members. There were times when she was proud of the school's achievements and activities, whereas some issues exacerbated her frustrations.

Rosy's curriculum making network (Figure 5.7) consisted of mainly in-school ties, while the beyond-school ties offered some curriculum-related support (e.g., curriculum adviser). Her network was the most influential compared to the other cases. Her in-school ties were teachers and SLT members from different subject backgrounds. This is an example of how a formal curriculum-related role can shape the composition of the network, especially in terms of having alters with different subject backgrounds. As for beyond-school ties, considering a lack of perceived support from pioneer schools, the local curriculum adviser was the key to bring the new information to her school.
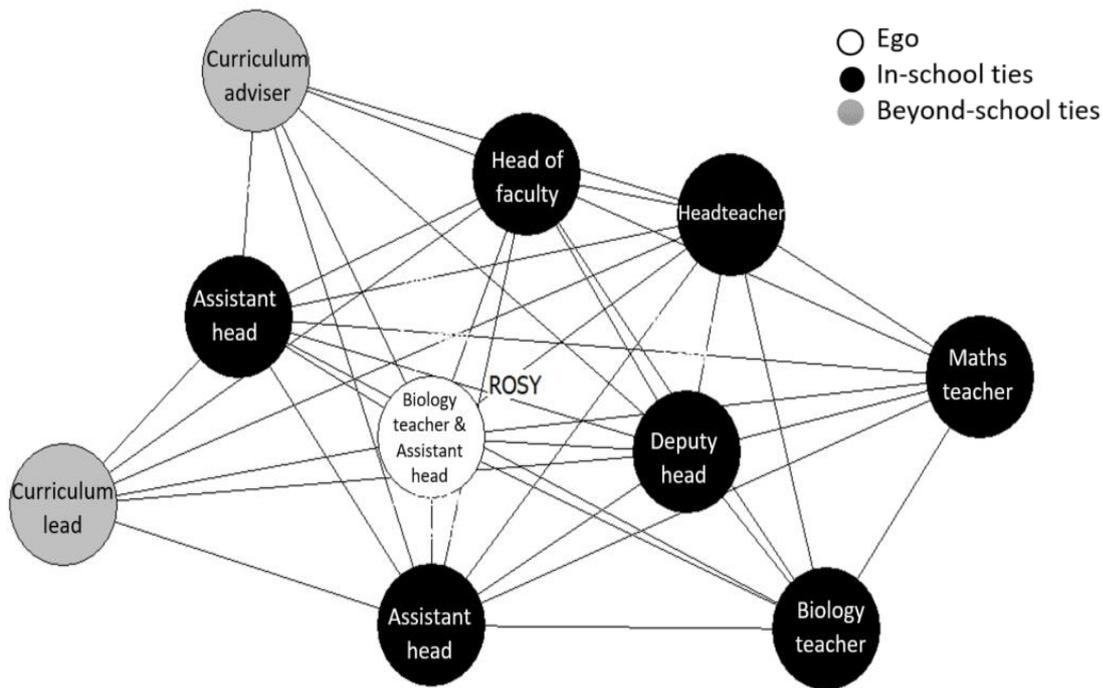
Figure 5.7. Rosy's curriculum making network

Rosy recorded a 5 for communicative and meta-reflexivity, and a 4 for autonomous and fractured reflexivity categories on the ICONI. Although a score of 4 and above in fractured reflexivity would indicate it as being the dominant mode, the qualitative data only revealed weak exercise of fractured reflexivity on specific occasions. For example, she was unable to project her actions and take any further steps when there were high levels of frustration and uncertainty. Overall, Rosy will be presented in Chapter 8 as a vignette, in which the multitude of roles with meso curriculum support may facilitate already committed school staff to an extent.

5.8. Karen[36]

As an Art teacher, Karen had been working in the same school for seven years. The school was in a rural area where the community engagement was high, for example, through festivals and school events. The school had a high reputation and achievement in Expressive Arts subjects and she felt strongly committed to developing this further. The headteacher was fully supportive and on board with the current curriculum reform, which was evidenced through their engagements in

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[36] *Karen comes across as a very passionate teacher with potential career in leadership in near future as it appears. Like yesterday, I was not the only one taking notes and asking questions. I thoroughly enjoyed such reciprocal process. She mainly asked about Finland and their system. What I find interesting is that she didn't only ask about Expressive Arts, instead she was keen to learn about whole school practices and how curriculum provision is designed.* (Diary, 15.02.2019)

local curriculum events. However, there was some significant resistance to the new curriculum within the school from some experienced teachers. This challenged Karen when organizing and disseminating curriculum information and practices.

Her understanding of curriculum had significantly changed after her engagement in the pioneer school approach (see Chapter 2), from being single-course development to a whole-school practice. She emphasized the process aspect of curriculum making by her explicit focus on whole-school development (Kelly, 2004), the learning journeys of students, and the importance of thinking differently about pedagogy and progression, which arguably illustrate the influence of the pioneer school engagement and signal the Learner-Centred ideology (Schiro, 2013). Her curriculum-related concerns involved disseminating the information about the new curriculum and the rationale for this change, and whole-school development, which required her to persuade staff members to get on board, and the lack of communication with non-pioneer schools.

Karen's curriculum making network (Figure 5.8.) spans across school and subject boundaries, including ties formed through the pioneer approach and community engagement. She commented on the effect of the nature of her subject, alongside the new curriculum reform on the structure of her network and her being strategic in drawing from her network resources. The multiplexity of ties, meaning that the alters acted in multiple roles (e.g., friend and a colleague) and to a high degree of strength and trust, were prominent features in her relatively more influential network, when compared to the others.
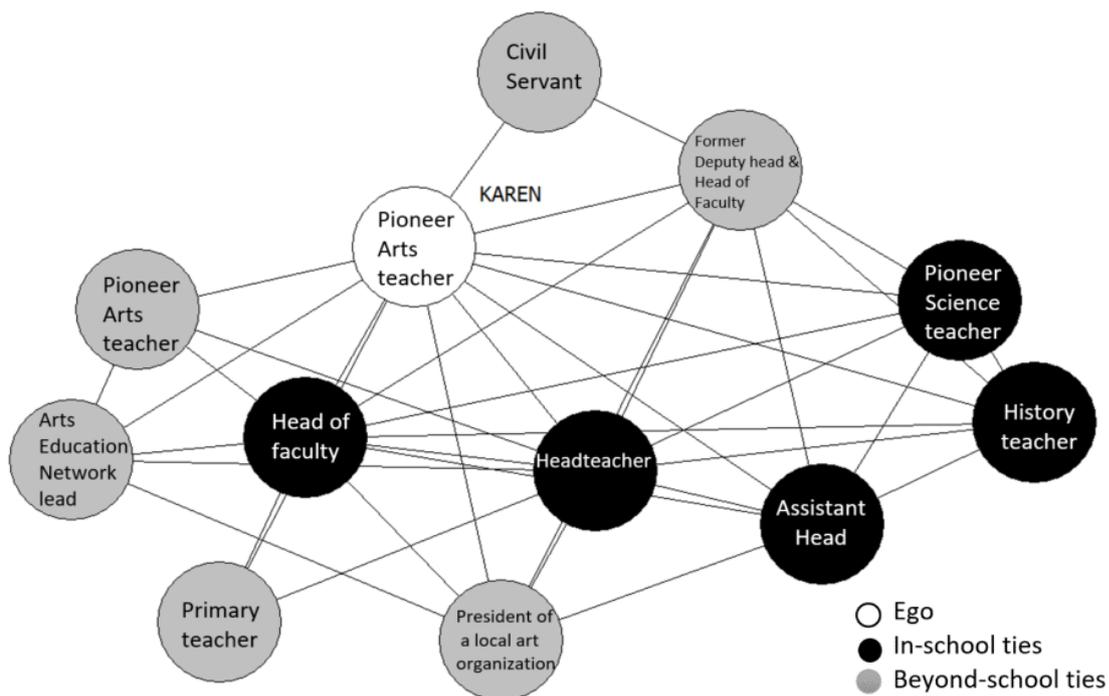
Figure 5.8. Karen's curriculum making network

Karen had extensive internal conversations, especially as a result of undertaking a formal pioneer teacher role in her school's curriculum making. She created her own space for conducting her internal deliberations, which were mostly individual exercises. These indicated her primary mode as autonomous reflexivity most of the time. She scored a 6.3 out of 7 for autonomous reflexivity and one of the lowest in fractured modality (1.75). Karen's profile and curriculum making practices offer an example of a teacher with a self-motivated formal curriculum role, a supportive SLT and a diverse network, who faces significant resistance from some colleagues in school.

Conclusion

This chapter introduced the eight teachers and presented brief summaries of their professional profiles, school context, perceptions of curriculum and potential tendencies for curriculum ideologies, associated concerns and insights regarding their networks and reflexivity. I explained how each teacher is situated in this research to provide an indication of how each case demonstrated a range of stance points, multiple ways of curriculum making, and unique contextual factors alongside some common features. I shall examine these in depth by looking at cross-case comparisons to identify the underlying generative mechanisms of curriculum making. I start this journey with offering a closer look at the teachers' curriculum making networks in the next chapter.

Chapter 6. External Conversations About Curriculum Making

Chapter 6 Outline

As outlined in Chapter 3, teachers' professional networks have been well documented, but there is still a need for a fine-grained analysis of the structure, culture and dynamics of these networks. Moreover, what these networks mean to teachers and how influential they are perceived to be in the context of curriculum making are important elements to understand the mediating role of networks. This chapter primarily draws upon the network data to address the first and second research questions:

> RQ1: *How are secondary school teachers' curriculum making networks structured and composed?*

> RQ2: *What are the structural and cultural dynamics in these networks and in what ways do teachers mediate these in curriculum making?*

I start by describing the teachers' (egos) and their connections' (alters) demographic characteristics and then explain how the networks are structured and composed. I shall then provide a rich discussion on the quality and content of relationships, as well as the influence of these alters on curriculum making. This chapter is framed around cross-case discussions, to illustrate a range of practices with a more detailed exploration of some of the cases to illuminate certain features in greater detail. A qualitative ego-network approach (Perry et al., 2018) was used to explore some quantitative patterns and meanings attached to the relationships. Apart from the network data, reflective diaries, observation and interview data were complementary, by providing additional insights on the networks.

6.1. Teachers' curriculum making networks

I start with a descriptive presentation of some of the characteristics of the egos and the alters in their networks, as shown in Table 6.1. I shall then present eight curriculum making networks; these consisted of 74 alters in total, of which 43 were female alters. Fifty-four alters had more than 10 years of experience and 37 of them were from Scotland. Less than 10 years of experience means that they only have experience of teaching Curriculum for Excellence (CfE), not the former 5–14 curriculum (SOED, 1993) in Scotland, which was frequently referred to by some teachers. The biggest component of the eight networks was classroom teachers (*n*=50), followed by senior leadership team members (*n*=9), while there was only one local adviser (in Wales) and one other staff member (Technician). This descriptive information gives some initial ideas and prompts for

further questions in analysing data. For example, we could speculate about why certain groups dominate or do not appear in the networks and what this may mean in the context of the curriculum.

Table 6.1. Demographic characteristics of curriculum making networks

		Egos			Alters in the networks		
		Scotland	Wales	**All**	Scotland	Wales	**All**
Gender		5F	2F	**7F**	32 F	11 F	**43 F**
		1M		**1M**	22 M	9 M	**31 M**
Years of experience	0–5				12		**12**
	6–10	3	1	**4**	5	3	**8**
	11–15	2		**2**	19	2	**21**
	16–20		1	**1**	9	4	**13**
	21+	1		**1**	9	11	**20**
Role	Teacher	6	1	**7**	40	10	**50**
	SLT		1	**1**	3	6	**9**
	Academics				6		**6**
	Local adviser					1	**1**
	External specialist				4	3	**7**
	Other staff				1		**1**

I now turn to discuss these connections in more detail, before exploring the structural patterns. These connections were formed in different contexts for several reasons. Figure 6.1 shows the teachers' networks (excluding the ego) with annotations to indicate the context of tie formation. Consideration of these contexts is important to enhance the opportunities to maximize the potential of the network and also identify some gaps. The majority of the ties were institutionally mediated (Small, 2017), meaning that they were formed as a result of working in the same schools. This indicates that relational states (Borgatti, 2021; see Chapter 3) offered spaces for relational events to occur, although the nature and extent of interactions varied. Besides, attending some events (e.g., the Scottish Qualifications Authority (SQA), summer school), social media

interactions, academic readings,[37] community engagements (e.g., local networks of schools and organizations), including the new curriculum arrangements in Wales (e.g., cluster school meetings), emerge as the contexts of making connections for curriculum making. Friends and family members were also present in some of the networks: people who were either teachers themselves or who could support curriculum making practices in some ways (i.e., 8C – national policy).

In summary, institutionally mediated relationships dominated the networks, whereas there were fewer people beyond the immediate school environment. This can be a potential area where curriculum making networks may be better resourced. At the same time, the teachers' social media interactions, attending self-motivated courses, meso support, and relationships with probationer students emerged as some contexts for tie formation. The specific reasons of tie formation with certain alters, what Small (2017) calls reflective activation, are important to explain here, to outline what the teachers sought from their networks. Seeking expertise was one of the most recurrent reasons, as a result of personal concerns and priorities. In addition, some cultural factors, such as having similar ideas on the curriculum reform, also played a role to influence how ties were activated. These will be discussed further in the subsequent sections.

Turning back to the structural features of the networks, Figure 6.1. illustrates that some of the networks manifest some disconnected components (e.g., Kyla's), whereas some others are more connected, even excluding the ego (e.g., Rosy). Such structural features and more will be discussed in the ensuing sections.

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[37] It appears that some ego-networks included material interactions (e.g., social media sites, articles) as well as human interactions. Following the nature of network data generation, human interactions will construe the focus of the analysis (see Tronsmo and Nerland's (2018) work, with socio-material perspective on curriculum making).
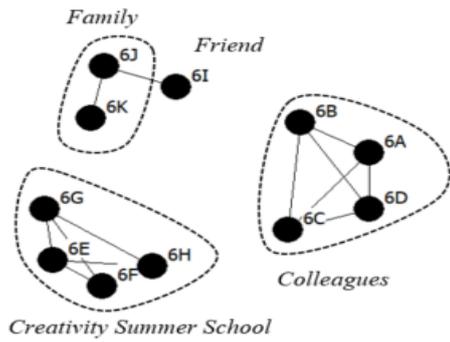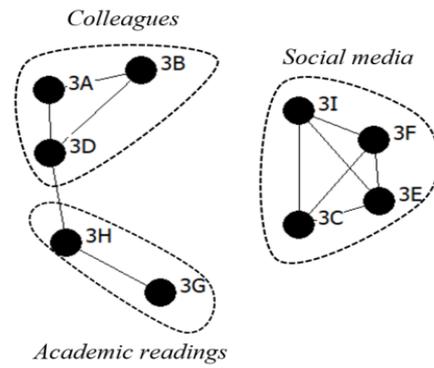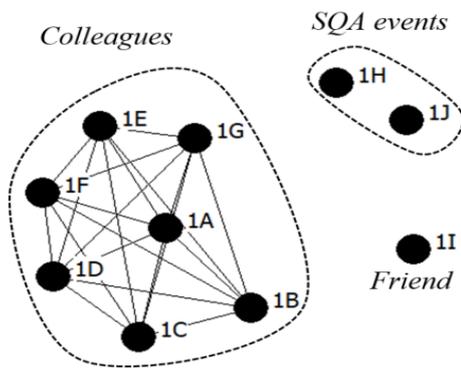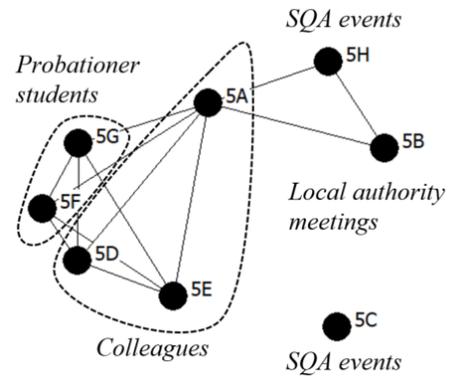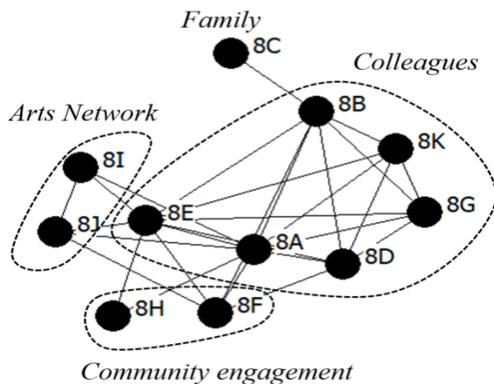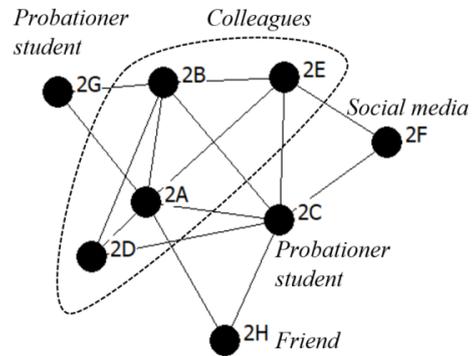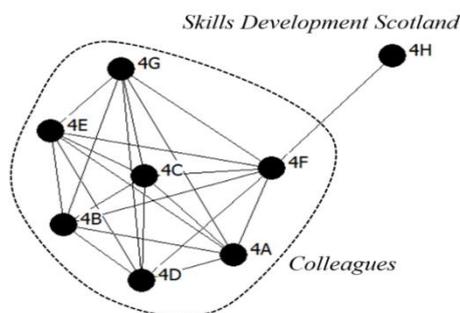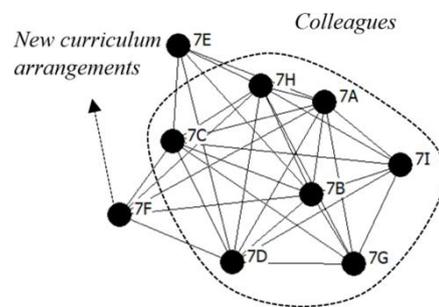
Figure 6.1. Curriculum making networks (excluding the ego) with annotations of tie formation context (the order is based on density, starting with the lowest)

6.2. Structural characteristics of curriculum making networks

In addition to density (the connectedness of the network), I looked at other structural characteristics of the networks to examine emerging patterns with qualitative data much more deeply (see Chapter 4). First, the extent to which ego is located between alters, in other words, ego's centrality, is measured through computing ego-betweenness scores in NetDraw. This is important, as higher ego-betweenness may facilitate curriculum innovation because egos might be able to connect different components with different ideas and resources (Ahuja, 2000). Second, the size of the network is included in Table 6.2, to provide more information about the number of alters in the networks. To remind the reader, participants were asked to nominate a maximum of 10 alters, due to time restrictions, but there were two cases where the teachers nominated 11 alters. Finally, the effective size was computed to examine the size of network differently, by taking account of redundancy of ties. In other words, effective size measurement will give us some information about the number of different 'pockets' of information that ego has access to.

Table 6.2 presents these values, and Figure 6.1 illustrates networks where ego is excluded. The reason for excluding ego is to see, for example, whether the network is composed of formal or informal connections or how passive or active the ego is on forming ties (McCarty & Wutich, 2005). The order of the networks reflects the increasing value of density and decreasing value of effective size and ego-betweenness.

Table 6.2. Density, ego-betweenness and effective size scores

	Ego	Density	Ego betweenness	Size of the network	Effective size
	Kyla	0.25	81	11	8.45
	Tim	0.30	47	9	6.55
	Joanne	0.46	48	10	5.8
Increased density	Ashley	0.46	22	8	4.75
	Karen	0.50	22.96	11	5.9
	Erica	0.53	11.83	8	4.5
	Heather	0.78	6	8	2.5
	Rosy	0.86	1.66	9	2.11
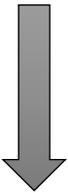
Towards the end of the spectrum, the networks become more connected and there are fewer different pockets or channels of information (referring to lower degree of effective size). I shall discuss two examples – the networks of Kyla, an English teacher from Scotland, and Rosy, a Science teacher and Assistant Head in Wales – to explore what these structural characteristics may mean in relation to curriculum making practices.

The density of Kyla's curriculum making network was measured as 0.25, meaning that 25% of possible ties in her network were evident, and 75% of them were missing. Kyla's position in the network was bridging a set of unconnected alters, offering access to different sets of information that were not necessarily evident in other components, which her comments also indicated:

> It is really nice to get a different perspective because it comes from an external agency so rather than being based in a school. (Kyla – ego-network interview-6E [Creativity summer school tie])

These different perspectives came from family-friendship ties and a summer school about creativity in curriculum. For example, alters from the creativity summer school contributed to her understanding of curriculum making in different ways:

> 6F advocates big questions. [...] A unit of work could come out from just one question, and it is so flexible that you can go a lot of different tangents. You can use for as many curriculum outcomes and organizers as you like. (Kyla – ego-network interview)

It appears that her position in-between a set of unconnected alters contributed to her own sense-making process in a reflective way.

> 6I is finding difficult going from planning one lesson at a time to thinking of a bigger picture, that we talked about. I am giving advice to him and finding ways to articulate what I am trying to explain to him. I am re-evaluating it for myself. (Kyla – ego-network interview)

At the other end of the spectrum, Rosy's network had a density of 0.86, indicating a higher level of connectedness of alters, as only 14% of potential ties were missing. As can be seen in the visualisation of her network excluding ego, there is still one complete network in which everybody is connected, unlike Kyla's, where we can see three distinct components. The majority of the ties were school-based relationships, and there were two ties formed beyond her school. This dense network enabled Rosy to disseminate information to her school, effectively and quickly related to

the new changes, in order to create a consensus and move things forward. This was timely and important in the context of Wales, as dense networks may encourage orientation towards change (Moolenaar et al., 2011) and support consistency, as was the case for Rosy.

> We knew what's coming and we wanted to be ready and try a few things. […] Curriculum is about the people, staff and students. I want to please everyone. It is about managing people and keeping them informed and on board about the changes. (Rosy – first interview)

Since the alters in Rosy's network were mostly connected to each other, the value of ego-betweenness and effective size is much lower than Kyla's, indicating that Rosy's curriculum making network may be in a disadvantageous position in terms of drawing novel information from other parts of the network. The formal curriculum reform timeline and the way in which it operates at the school level might be a potential explanation of this:

> I had connections with academics last term, and I should perhaps have more chat, but you are just so busy and getting on with it, you kind of do not have time. (Rosy – ego-network interview)

Overall, I can argue that dense networks can contribute to creating a consensus and making sense of different aspects of the curriculum and potentially enable a feeling of a team satisfaction (Borgatti & Ofem, 2010), which positively mediates curriculum making, as was the case for Rosy. However, there might be a limitation in terms of drawing different sets of information, which would nurture and support curriculum making. Of course, as mentioned, the timeline of data generation also matters. Kyla's network was in a strong position of drawing novel information from unconnected alters, which created spaces to fulfil different needs related to curriculum making (e.g., creativity in the curriculum, emotional support).

My argument here is that these structural characteristics take us to a certain level in understanding who is involved in curriculum making and for what purpose, yet it stays partial. The teachers' roles also shaped how the network was structured, as Rosy held different roles, including being a curriculum lead, which required her to oversee curriculum making at the school level, which was not the case for Kyla. Another individual difference was related to the state of mind in terms of the teaching profession. Kyla was planning to leave the profession soon. This was one of the reasons for forming ties with alters from the creativity summer school, as she could feel a sense of community with people who were similar to her for talking about her frustrations. This echoes what März and Kelchtermans' (2020) research suggests, that informal and beyond school

ties have vital importance for teachers' practice. In contrast, Rosy felt engaged with the new curriculum reform and wanted to move things forward with her school staff, with whom she shared the mission and vision. That suggests that, alongside their roles in their schools, their priorities and concerns, as well as their attitudes towards curriculum reform, within their structurally and culturally different contexts are important when making sense of these structural characteristics of the networks. These individual differences are related to personal emergent properties, which will be explored throughout the empirical chapters and presented as a summary in Chapter 8.

6.3. Composition of curriculum making networks

This section is concerned with the compositional characteristics of the networks, more specifically with the identification of potential proxies for similarity and/or diversity in the networks. The ego-alter similarity is important to understand networks in terms of tie formation, maintenance and activation (Perry et al., 2018), as well as tie strength (Reagans, 2011). For example, some research suggests that teachers who are similar in age (Reagans, 2011) or are similar in terms of physical proximity (Spillane et al., 2017) are more likely to be connected. Nevertheless, a closer look at the ties is needed to speculate about homophily, in other words, alters obtaining the same characteristics as the ego. For example, there might be a dominance of female or male teachers in certain subject departments across the schools. Hence, as mentioned in Chapter 4, homophily is operationalized as choice homophily (McPherson & Smith-Lovin, 1987), thinking of how the similarity differs from what would be expected if the particular category was irrelevant, rather than using the raw numbers. Following this operationalization, I shall first start with contemplating on the proportions and then continue to reference the teachers' perceptions of these ties. This will be achieved by comparing and contrasting the cases to contemplate similarity and diversity in curriculum making networks under each category. The similarity proportions of some of the similarity proxies are computed and presented in Table 6.3.

Table 6.3. Proportions of similarity in different categories in ego-networks

Ego	Gender	Years of experience	Role	Same subject only	Same school only	Same school and subject	Not same school or subject
Joanne	70%	20%	80%	50%	70%	30%	10%
Erica	87.5%	37.5%	**87.5%**	**100%**	37.5%	37.5%	**0**
Tim	77.77%	33.33%	**33.3%**	44.4%	**33.3%**	11%	33.3%
Heather	**37.5%**	**0**	75%	62.5%	**87.5%**	**50%**	**0**
Ashley	**100%**	12.5%	50%	87.5%	37.5%	12.5%	**0**
Kyla	45.45%	**54.54%**	81.81%	45.45%	36.36%	36.36%	**54.54%**
Rosy	66.66%	22.22%	44.44%	**33.33%**	77.77%	22.22%	11.11%
Karen	45.45%	27.27%	54.54%	36.36%	45.45%	**9.09%**	27.27%

Gender and years of experience similarity were found to be as a result of involuntary tie formation, more specifically, how the schools were formally organized into subject departments as opposed to being a deliberate choice in curriculum making. Hence, I shall examine the composition regarding the role, subject background and context, as these offer much substantial contribution to the discussion of similarity and diversity in curriculum making networks. Nevertheless, a brief description to illustrate the involuntary tie formation is helpful here to give a flavour of the process of data analysis.

Looking at Heather's case, we see 5 male alters and 3 female alters, and the subject background itself seems to be a reason for forming ties, as male Design and Technology teachers outnumber the females in the department and Scotland in general (Scottish Government, 2018). Likewise, an expected similarity, that is, the dominance of female alters and female probationer students in Ashley's department, may partly explain the perfect gender similarity in her network. By looking at the proportion of the male and female teachers in these departments, we would expect Heather to have heterophily and Ashley to have homophily related to gender in their networks (considering that the biggest component is composed of colleagues). One important finding related to gender heterophily in Heather's case is the fact that there was a negative tie, which stemmed from gender-related attitudes.

He (4C) is a bit of a bully of females. He would undermine me in front of parents and students. […] Professionally we are okay. I don't think I benefit from working with him. (Heather – ego-network interview)

Labianca and Brass (2006, p. 597) defined negative ties as a 'set of negative judgements, feelings, and behavioural intentions towards another person'. This connection, with a negative meaning attached, hindered how Heather benefited from the network. For example, even though Heather and 4C designed and taught the same course and had frequent communications, because of this perceived negativity, it was ranked as a weak relationship with a low level of trust and influence in curriculum making. This finding suggests that we should be looking at how egos perceive themselves, the properties of the network, and the boundaries of the subject structures in schools, to make meaning of gender homophily (Coburn, et al., 2013). This implies the importance of the relationality aspect of networks (Donati & Archer, 2015).

Similarly, the teachers' roles shaped the years of experience homophily. For example, the networks of Rosy, a member of the senior leadership team herself, and Karen, a pioneer teacher requiring connections with the SLT, consisted of alters who were particularly the most experienced ones. All of these individual and structural characteristics will be combined as emergent properties in Chapter 8. Hence, years of experience may not always be a strategic indicator of forming ties in curriculum making networks, but it will be shown that the lack of experience can impact on the quality of the relationships.

6.3.1. Role similarity

Six broad categories were identified after analysing the qualitative network data: teachers, senior leadership team (SLT) members, academics, local advisers, external specialists and other staff members. A minimum of two and maximum of three different roles were identified in the networks. The network of Erica and Tim (see Table 6.4.), the two examples of the greatest homophily and heterophily in relation to alters' role, construct the initial step for a cross-case discussion.

Table 6.4. Role similarity – Tim and Erica

Erica's network	Tim's network
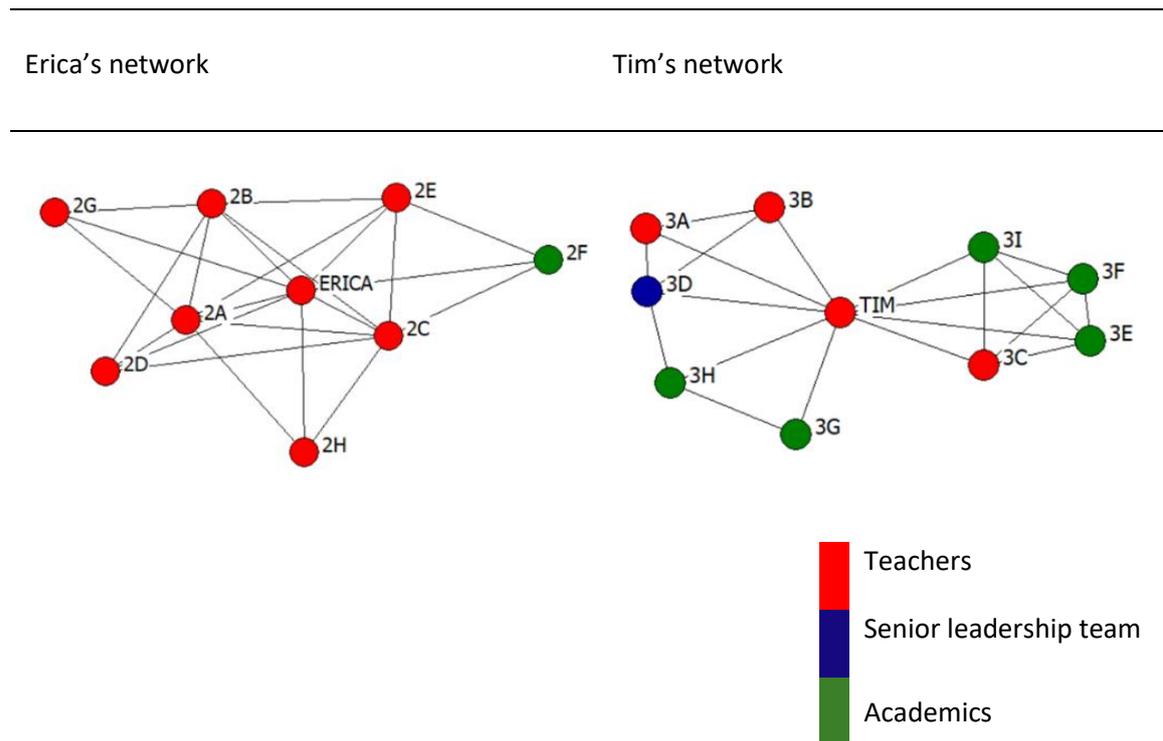
Tim's network consisted of five academics, a senior leadership team member, and three teachers. Because the majority of the alters were academics, this network stands as being unusual, considering the other networks in my research and related literature (Carmichael et al., 2006). This is partly related to the lack of ego-network research in curriculum studies, which would show both formal and informal ties. Tim deliberately sought research evidence behind curricular decisions and intended to have philosophical conversations about curriculum policy and change and, consequently, connections with academics were formed. Such heterophily, which does not indicate a diversity as five of them are academics, can promote independent thinking (Borgatti & Ofem, 2010), yet the content of such conversations being complementary or contradictory is essential to understand how such heterophily mediates curriculum making (Anderson, 2010; Kelchtermans, 2006). It was observed that even though there was a degree of intellectual satisfaction in such conversations, and a change in his own thinking about curriculum and related concepts, such conversations were found to be difficult to apply in his daily practice and context due to structural constraints (e.g., accountability practices) and a lack of consistency between different sites of curriculum making. I shall offer a more detailed account of Tim in Chapter 8, where I look at the interplay between his reflexivity and networks.

In contrast, Erica's curriculum making networks consisted mainly of teachers from the same subject background, indicating a high degree of homophily. Such subject-specific conversations

with teachers were at the heart of Erica's curriculum making practices, including one academic. An inherent assumption of having research-based conversations with an academic who engages with research, which was the case for Tim, was not observed in Erica's network. What that alter brought to the network was more on the subject content and material resources (e.g., free books). This finding was evident in Erica's narrative on the content of the connections rather than the structural characteristics of the network. This emphasizes the importance of taking a qualitative network approach, to get finer details of the exchanges in and meanings attached to networks. Erica was mostly concerned about qualifications, marking and assessment-related changes, and therefore she was strategic in addressing such concerns and seeking support from her network. Hence, teachers' curriculum making orientations (Deng & Luke, 2008; Schiro, 2013) might also offer insights to understand the mediating role of networks in curriculum making, which will be discussed where relevant.

6.3.2. Subject background similarity

Although subject background was not included in the categorical items in the name generator, I realize this is important during data analysis to understand the composition and dynamics of the networks. In fact, it is one of Schwab's (1983) commonplaces for deliberations on curriculum making. From a network perspective, Spillane (2005) argues that teachers' subject backgrounds can affect the structure and culture of teachers' interactions. A recent study (Crick et al., 2019) also showed that this difference can influence the content and direction of taking decisions in curriculum making activities.

Table 6.5. Subject background similarity – Erica and Rosy

Erica's network   Rosy's network

◯ Same subject   ☐ Different subject
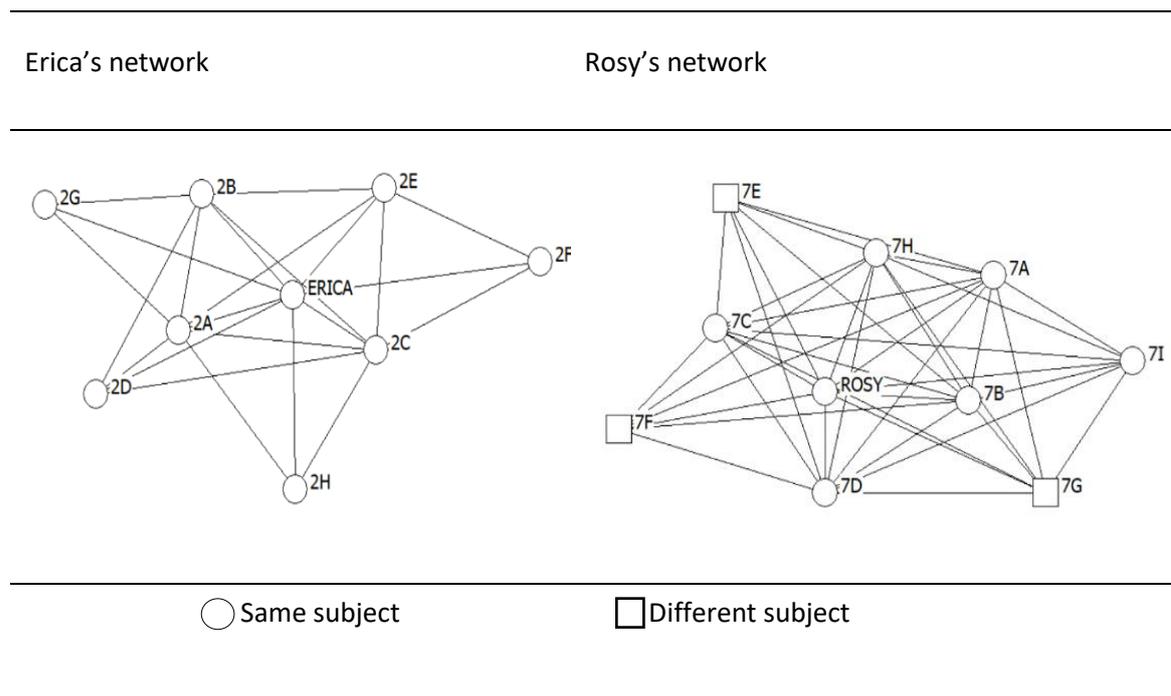
Table 6.3 summarizes the similarity scores for subject similarity (in Section 6.3). It appears that Erica, a History teacher, was only connected to the alters who had a History background, whereas subject background heterophily, as well as diversity, is observed in Rosy's network (see Table 6.5). I shall discuss this pattern in relation to the egos' social contexts and personal factors.

Firstly, Rosy had a curriculum lead role, whilst being an Assistant Head and a Biology teacher. Such positions with leadership roles required her to oversee and lead curriculum making at the school level, which meant that she had conversations with teachers from different subject backgrounds. Additionally, there was a reconfiguration of subject department structures in her school in line with the new curriculum reform. This change required teachers to work with others under Learning Development teams, which consisted of different subject teachers. This responsibility enabled Rosy to have overarching ideas of what each Learning Development team was doing. This type of departmental organization or a curriculum-related role was not the case for Erica. Erica's concern was mostly around attainment levels. The cross-case discussion overall suggests that the subject background homophily in curriculum making networks should be considered in relation to different emergent properties, such as personal concerns, priorities, and additional roles; and how schools are formally organized to subject structures and the nature of the subject itself, which will be discussed in more detail in the next section.

6.3.3. Context similarity

The final category of the compositional characteristics of the networks is context similarity, in other words, having connections in and beyond the school environment. Previous research suggests that teachers tend to connect with geographically close connections (Coburn & Russell, 2008) and that schools infrastructure has a potential to enable interactions in schools (Spillane et al., 2017).

Table 6.6. Context similarity – Heather and Rosy

Heather's network   Tim's network

Bigger nodes are in-school ties and smaller ones are beyond school ties.
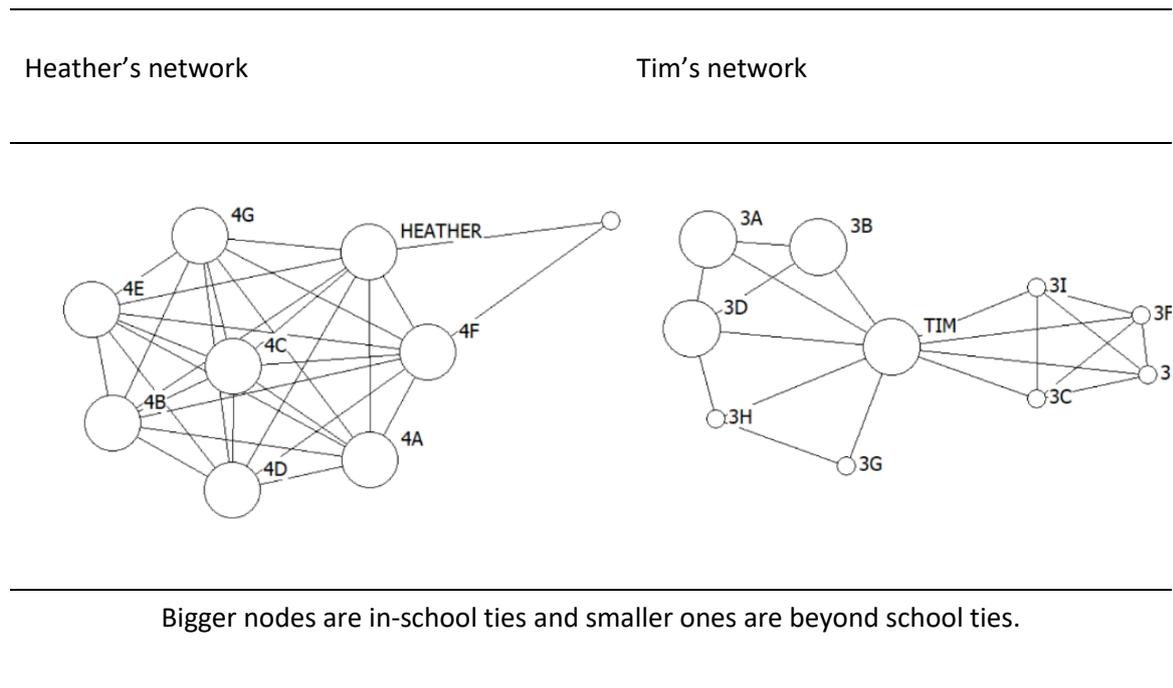
I shall discuss Tim and Heather (see Table 6.6) here, showcasing the two ends of the spectrum in the degree of context similarity. Tim was connected to more alters beyond his school, dominantly, compared to the other seven cases. Beyond-school ties can be utilized as a bridge to access a new network (Anderson, 2010), which was observed to be the case for Tim as previously discussed in the role similarity. He was in a strong position to draw new and non-redundant information (Daly & Finnigan, 2010) to his school practice. Yet, as illustrated earlier, such information was either perceived not to be applicable or conflicted with the school level and national expectations and practices. This exacerbated his feeling of frustration and hindered his curriculum making practices.

> Vision is cheap; vision is a great thing. Anyone can stand there and give a great vision. If I want to translate vision into reality, I need to invest in x, y and z. They invest x, and they hope teachers to fill y and z. They are falling off from the bus, and they just can't cope with it. (Tim – ego-network interview)

What we see differently, based on the context similarity, is that Heather's network had only one alter (4H) beyond her school, which was somehow still connected, as they worked on a project together with the school. 4H was from the Skills Development Scotland, and Heather had some concerns as to whether their priorities were different and whether they had their own agenda. Spillane (2005) argues that ties in and beyond school ties also depend on the subject matter. This view was echoed by Karen:

> The nature of my subject area [Arts] is also about networking. From when I was in university, you know with galleries and stuff; it is quite a social subject. Many things we do is usually outside of the school. (Karen – ego-network interview)

In summary, the teachers' concerns and priorities, which are also mediated by structural and cultural factors (e.g., frequent changes in exam papers), have a significant influence on the role homophily in the curriculum making networks. For example, a teacher may be in a position of drawing upon an extensive range of information from different expertise and beyond school ties, as was the case for Tim, which then may not necessarily foster curriculum making practices. It is a complex interplay of different factors, such as the dominant mode of reflexivity, which is related to how we project our actions, based on our concerns in our unique contexts, that plays a substantial role in this (see Chapter 8 for more details). Overall, I have argued that meanings attached to the ties, the alters' subject background, roles, and context similarity are meaningful proxies to explore the structure and composition of curriculum making networks (See Figure 6.2).
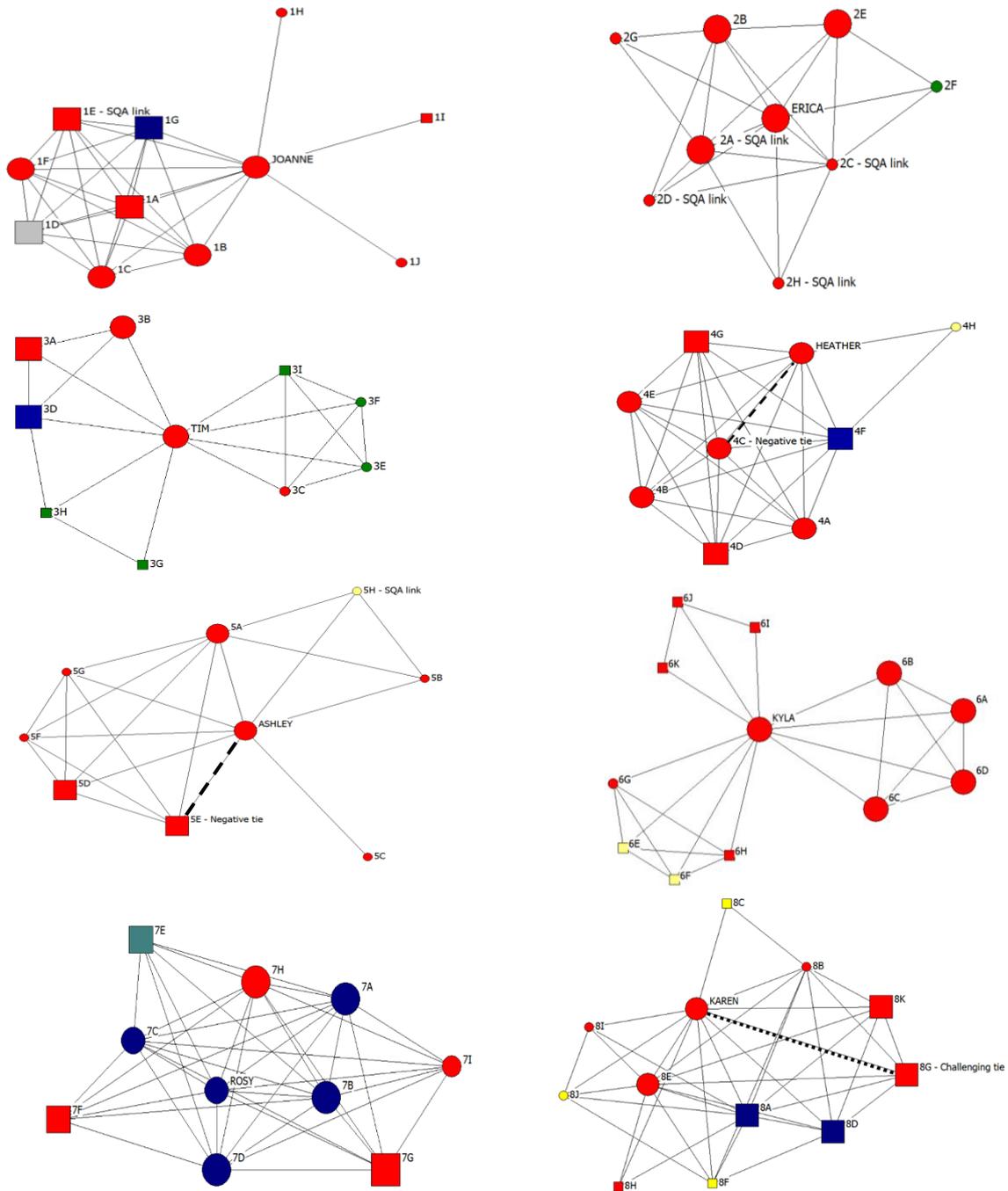
Figure 6.2. Curriculum making networks with role, context and subject background including negative and challenging tie information

6.4. Quality of curriculum making relationships

I now turn to discuss the four indicators; strength, trust, frequency of communication, and emotional closeness, to theorize about the quality of curriculum making relationships. These indicators are often utilized in the literature to discuss teachers' relationships (Atteberry & Bryk, 2010; Coburn et al., 2013; Kolleck, 2016). Nevertheless, the current literature often overlooks the subjective meanings attached to these indicators. In order to address this gap, I commence by explaining a range of meanings attributed to these indicators and then demonstrate some quantitative patterns regarding the degree of each indicator. I conclude this section with a discussion on a range of implications of the quality of relationships in curriculum making as the emergent properties that relationships hold.

6.4.1. Strength

The strength of relationships has been established as one of the influential components in the enactment of a reform. For example, strong relationships may influence the degree of the exchange of complex information (Daly & Finnigan, 2010). On the other hand, Hargreaves (1994) argues that strong relationships might not necessarily indicate a collegial sense or purpose. Teachers can be more dependent on each other due to performativity culture, which is defined as contrived collegiality, and that was evident in my research.

First, it is important to establish how strength is subjectively perceived by the teachers. Strength meant sharing similar beliefs about education, possessing expertise or something depending on the degree of multiplexity (meaning that alters acted in multiple roles, e.g., friend and a colleague) of relationships, the frequency or intensity of communication. There were some examples where sharing the same beliefs about education, or having expertise in a particular area, something that was actively sought, were perceived as being explanations of strong relationships.

> We have a very good working relationship. We have the same principles when we make courses. (Ashley – 5A – 10)

In some other cases, the multiplexity of relationships was perceived as being an indicator of strong relationships. This was also evident in other research; that professional relationships and friendship often overlap (Spillane, 2007, as cited in Penuel et al., 2009), and that beneficial work relationships may develop into stronger relationships (Borgatti & Foster, 2003). This reiterates the importance of looking at relational events more closely to interpret the meaning of relational states (Borgatti, 2021).
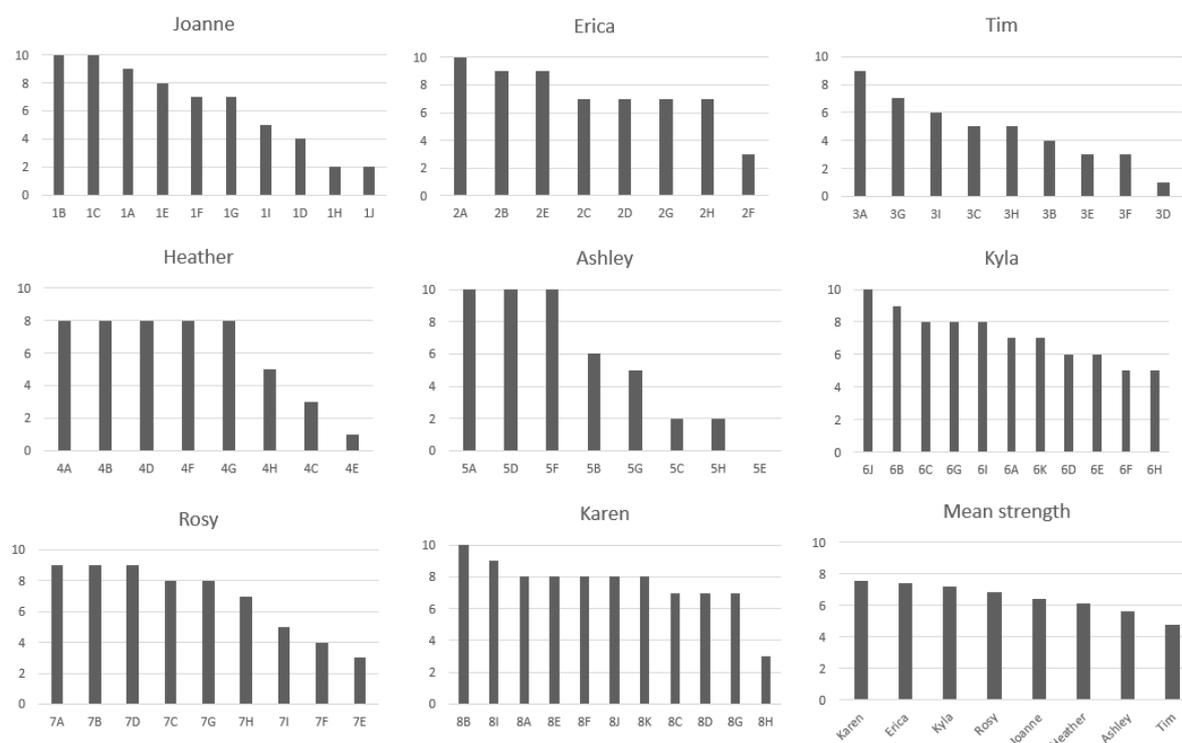
Figure 6.3. The degree of strength of relationships

As shown in Figure 6.3, there was a mixture of strong and weak ties in each network with a varying degree. The mean strength of all 74 alters in eight networks was 6.4 out of 10. The number of strong ties (higher than the average degree in that specific case) was greater than the weak ties in some of the cases (e.g., Karen and Erica), whereas the opposite was observed in others (e.g., Ashley and Tim). Some weak ties acted as novel connections, where they brought new information into the network (e.g., 7E, local curriculum adviser, in Rosy's network). In contrast, some weak ties were attached to negative meanings and consequently obstructed curriculum making practices. For example, 5E in Ashley's network, her head of the department, was the weakest connection in her network, and Ashley stated that:

> This is a tricky relationship. She does not even know what I teach. She can give me no advice or any tips about improving the curriculum […] She is a Modern Studies teacher, so she goes to Modern Studies meeting, but she never comes to our meeting. That's why it is the first year ever that I understand why people are leaving. If I could just to move a job now with 40k, I would leave today; that's how I feel. (Ashley – 5E – Strength: 0 out of 10)

The impact of the head of the faculty being from a different subject background was evident in some of the other cases, too. A contrasting example was in Joanne's network. 1E, the head of the faculty, was one of the strong ties, and Joanne expressed a potential difference to Ashley's case in the following quote:

He (1E) is in a different subject, which is useful as he has the overview of Sciences and gives advice on how things fit together in a more systematic way […] He very much trusts us. (Joanne – ego-network interview)

Hence, the strength of ties is dependent on the complex web of interactions and how an individual perceives them in relation to their concerns. It is crucial to investigate the underlying reasons for strong and weak ties in these relationships to unpack the emergent properties that the relationships hold. Evidently, such weak ties, as those in Ashley's network, with that level of frustration and perceived lack of support in the departments, can obstruct curriculum making practices.

6.4.2. Trust

Trust is one of the critical ingredients of successful education reform (Atteberry & Bryk, 2010; Brown, Daly, & Liou, 2016). Figure 6.4 shows the ranking of trust for all alters in the eight networks. The average degree of trust was 7.9 out of 10.
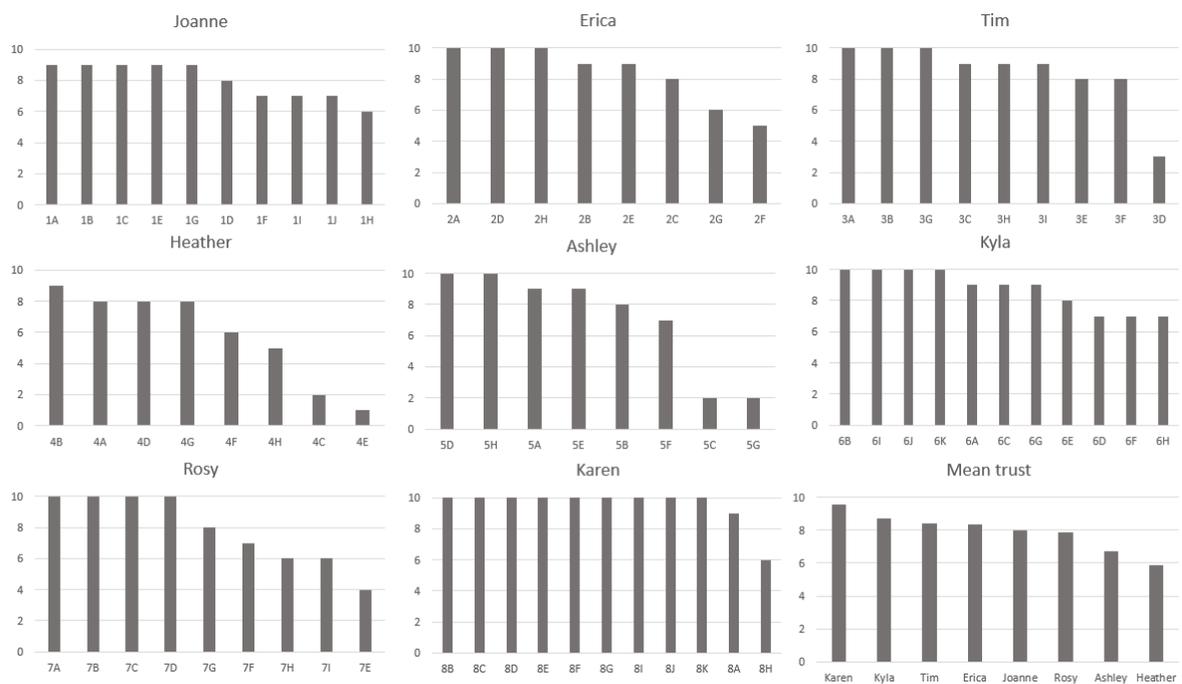
Figure 6.4. The degree of trust of the relationships

A range of interpretations of trust was evident. For example, trust was referred to as having the expertise which one seeks for, as a consequence of frequent and intense communications, or as something to build in years of knowing each other. This is where the qualitative account is crucial to delve into such meanings. The areas of expertise that the teachers sought also varied from

assessment and/or content to pedagogy. The following quotes from Ashley and Erica are examples of trusting the assessment-related expertise:

> She is marking for years in SQA. She is in the national qualifications support team. I take everything she says about SQA (Ashley – 5A – Trust: 9 out of 10)

> She is a marker and in the verification team. If she said this is the right thing to do, I would not question. (Erica – 2H – Trust: 10 out of 10)

Such statements indicate that trust may also result as a consequence of the structural pressures and potentially a lack of communication between the SQA and teachers. Hence, I argue here that a trusted relationship, even if it may facilitate the exchange of complex information (Daly & Finnigan, 2010), needs to be approached with a caveat. Strong professional relationships with a high level of trust may not necessarily be designed for collegial purposes. Different factors (e.g., performativity culture, accountability practices) may result in teachers being more dependent on each other. The foci on the assessment and exam criteria in the networks may also limit the boundaries of curriculum making and the opportunities that the network would offer. In fact, it could be a consequence of a narrow understanding of curriculum, too. For example, Erica's perspective and insights often highlighted preparing for getting qualifications, indicating the Social Efficiency ideology (Schiro, 2013).

> I: What does curriculum mean to you?
>
> Erica: Mostly for us, it is a setting a way to SQA. For looking at qualification classes (S4-5-6), the curriculum is based on Scotland, Britain, Europe and the wider world. We have a selection of Scottish units and as a department, we decide which one we are looking at. For S4, we are looking at National 3-4-5 qualifications and so they are looking at migration and empire. […] We are stuck to the curriculum. We have to make sure they meet all the criteria so that they can gain the qualification. (Erica – first interview)

The degree of trust, as an emergent property of the teachers' relationships, is not static, and some structural change has the potential to foster the level of trust by, for example, by enabling an opportunity to develop professional relationships over some length of time (e.g., Kyla with 6A – new Drama curriculum) or by seeking different areas of expertise for whole-school practices (e.g., Karen).

This section reiterates the significance of the interconnectedness of different factors to explain trust as evidently one of the strong and meaningful elements in curriculum making. The teachers' understanding of curriculum, and their curriculum orientations, the culture in their networks, as well as the accountability practices, appear to dominantly shape the level of trust in curriculum making networks and how this is transformed into actions.

6.4.3. Frequency of communication

High frequency is often seen as one of the indicators of strong relationships in a combination of other indicators, such as emotional closeness and the level of trust (Brown et al., 2016). In this research, I analyse this as a separate proxy to explain what makes high- and low-frequency contacts and the ways in which curriculum making practices are mediated accordingly. Table 6.7 below demonstrates the frequency of conversations and the number of alters each teacher communicated under the associated scale. The average frequency of communication was fortnightly, considering all 74 communications in the eight networks.

Table 6.7. Frequency of communication

Ego	Daily	Weekly	Fortnightly	Monthly	Twice a term	Once a term
Joanne			2	6	2	
Erica	1	2	2	1	1	1
Tim		5	2	1		1
Heather	2	4		2		
Ashley	2	2	3			1
Kyla	1	5	1	1	3	
Rosy	2	4		2		1
Karen	2	4	1	2		2

Some of the alters were at least weekly contacts, while others occurred once or twice in a term. This variation can be explained by a range of factors. First, proximity, which refers to being geographically close, is one of the repeated reasons for high-frequency contacts in the literature (Coburn & Russell, 2008; Spillane et al., 2017). Colleagues in the same department or in the school, or friends and family members who were easy to reach and talk to, were amongst the most frequent contacts as part of formal routines (e.g., department meetings) as well as informal routines (e.g., lunchtime conversations). There were some contrasting examples in terms of talking with colleagues less frequently and talking more often with the beyond-school ties. For example, Tim was in contact with five alters in his network through social media, while he had only three alters from his school and, with two of them, he communicated weekly. This illustrates that proximity may not be the only reason for explaining regular curriculum talk, but there are

also personal interest and daily habits to be considered, as Tim was mainly interested in seeking research evidence through social media interactions and reading articles. As mentioned previously, in Ashley's case, the perceived negative climate in the faculty inhibited having more frequent conversations with those in close proximity.

Some structural factors created spaces for more frequent curriculum talk with existing connections. Rosy and Karen gave some examples of how a new curriculum reform may increase the frequency of communication in that respect:

> The people I talk most in the school not the senior management people at this time because I started to think whole school approach in terms of curriculum and they have the overview already. (Karen – 8A – ego-network interview)

> Curriculum is in now our agenda every week. Especially timetabling. […] She is a Maths link, so we talk about double lessons. (Rosy – 7C – ego-network interview)

These provide an example of how a new curriculum reform can facilitate both the frequency and content of the teachers' conversations, which potentially can change the culture of the school for more innovative curriculum making practices (Coburn et al., 2012). On the other hand, some structural factors, such as having a high number of part-time teachers, may result in organizational difficulties for curriculum conversations to happen frequently. For example, a mixture of part-time and full-time staff members working in the same school also had an impact on some organizational curricular decisions in the context of Wales.

> We are looking at lots of different possibilities about collapsing days, collapsing weeks, maybe looking at the whole day. It is becoming so complicated organizing and sorting timetable. The biggest problem is the amount of part-time staff we have. 6th form is mixed, and we cannot manoeuvre. It becomes such a task that we said no, we are not changing the timetable now. (Karen – ego-network interview)

Overall, similar to the previous indicators of the quality of curriculum making, the insights I present here reveal the importance of having a deeper understanding of the personal, structural and cultural factors and resources that the teachers possess with respect to the degree of frequency of communication in curriculum making.

6.4.4. Emotional closeness

An affective dimension of the teachers' formal and informal relationships is explored here as one of the features of the quality of relationships. Some research argues that strength, trust and frequency of communication can indicate the degree of emotional closeness (Reagans, 2011; Roberts, Dunbar, Pollet, & Kuppens, 2009). Similarly, Johnson (2003) argues that highly trusted alters are perceived as being emotionally closer. Making direct causal links is not possible, nor intended here; however, explaining how this dimension was perceived in relation to curriculum making, and the ways in which emotional closeness shapes the teachers' practices, will contribute to our understanding of teachers' networks.

```
        Not close
      Less close
    Very close
      EGO
        30
      26
    18
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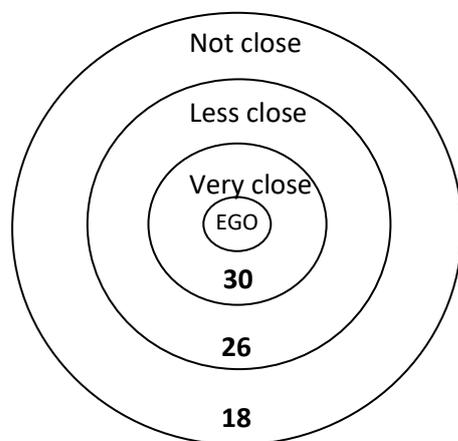
Figure 6.5. The number of alters in each concentric circle indicating emotional closeness

The networks consisted of a mixture of close and distant connections (see Figure 6.5). Thirty alters were placed in the 'very close' concentric circle (41%) and 18 alters were nominated as being emotionally not close (24%). Some teachers had more alters in the closer circle (e.g., Joanne and Rosy), whereas others had more alters in the two outer circles (e.g., Tim and Kyla). Three broad factors influenced emotional closeness: multiplexity, frequency, and intensity of communications. Starting with the first factor, multiplexity, this involved alters who were characterised as a good friend and a colleague, or a family member and a former colleague at the same time.

> She (8B) is my mother-in-law and previous head of art, also a very good friend. We can talk about everything. She can give me perspectives of a family, friend but also as a previous role of head of art, it is a complex relationship. It makes me even to look and think in a more complex way. (Karen – ego-network interview)

Alters who were in the outer circle were mostly novel connections, where the frequency and intensity of communication were not as high as the ones in the inner circles, similar to the

aforementioned findings. In the context of the curriculum, emotional closeness, which is fostered through higher frequency and intensity of conversations, plays an important role for the generated network to be fulfilling and beneficial, especially from novel connections. Further, this dimension is especially important when it comes to revealing emotional support in the network, which I explain later.

6.5. Content of curriculum making networks

Curriculum making networks included a variety of topics from content and assessment-related conversations to managerial or curriculum policy for achieving different purposes. As an overview, Table 6.8 summarizes the main topics of the curriculum making conversations. These are: content (e.g., subject-matter knowledge); managerial (e.g., day-to-day practicalities); pedagogy (e.g., instructional strategies); assessment (e.g., marking scheme); curriculum policy (e.g., new curriculum demands); emotional support (e.g., coping mechanisms); and academic research (e.g., recent academic articles). Table 6.8 also illustrates the number of alters nominated for having a conversation on each of the topics. Most of the alters were nominated more than once. Some of these topics were evident in all of the networks (e.g., content related conversations), whereas some of them were explicitly construed a particular teachers' networks (e.g., Erica – assessment-related conversations). It was also interesting to see how few nominations (8) there were regarding academic research related conversations, of which Tim had 5 alters nominated.

Table 6.8. Content of the eight curriculum making networks

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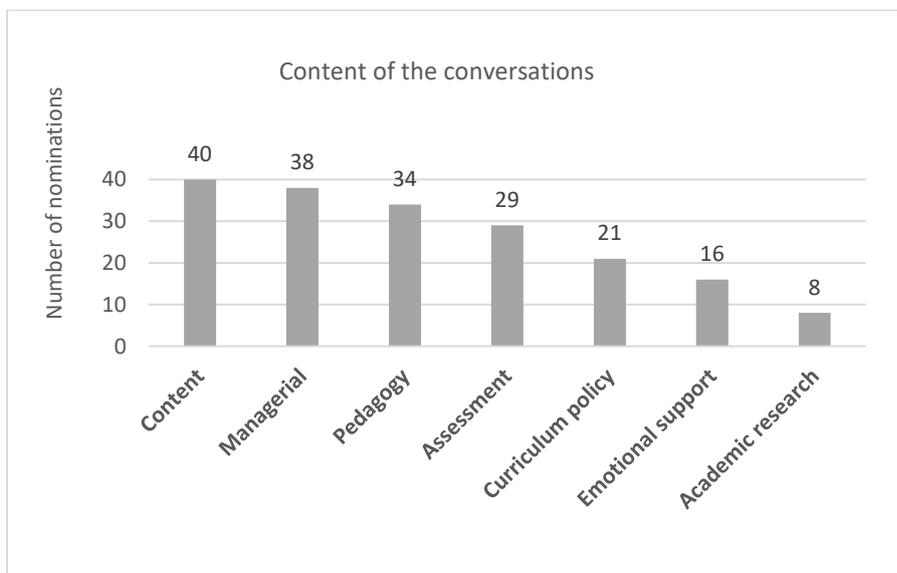
Different purposes, such as advice-seeking and obtaining material or emotional support, have construed the purpose of these conversations. Previous research has examined: information-seeking networks (Meredith et al., 2017; Tuomainen, Palonen, & Hakkarinen, 2010); advice networks (Baker-Doyle & Yoon, 2011; Coburn et al., 2012; Geeraerts et al., 2018; Woodland & Mazur, 2018); and emotional support networks (Reagans, 2011). The depth and breadth of conversations, as well as what is (or not) available to the teachers through these conversations, should be argued in relation to curriculum making in different contexts, to identify some enablers and constraints in their contexts as a result of their positions in the networks.

6.5.1. Advice and information seeking

There were four sub-themes for advice-seeking in curriculum making through external conversations: the topics or issues related to the subject-matter knowledge, exams, students and whole-school practices. For example, subject-specific content was sought in the networks, primarily when the connection could provide complementary insights into the teachers' practices.

> We have a different specialism. Her focus is on the acting and performing side and mine is about the technical side. Lovely balance. […] I would go to 6A for Drama (Kyla – ego-network interview)

This also illustrates how new curriculum projects (i.e., the introduction of drama curriculum for Kyla) have a potential for facilitating access to expertise and offer a space for collaborative work, which was also discussed as a facilitator of trust. One of the most recurrent advice-seeking topics was related to assessments, such as marking processes, qualifications, and meeting the Benchmarks (in Scotland). These pieces of advice were sought from other teachers, usually those with formal or informal links with the SQA.

> SQA still did not clarify. It was October before they clarified the extra two marks where they come from. […] 2D would clarify the conclusion for us when the marks have changed […] 2H is a marker and in the verification team so when we were doing outcomes, she was checking the courses and outcomes and decide if it is National 4[38] standard. She visits different schools. She is an inside link in the SQA. (Erica – ego-network interview)

A contrasting approach expressed by Tim, who did not seek advice on assessments, still underlines the impact of such changes and perceived lack of communication on curriculum making practices:

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[38] National 4 is a national examination usually taken in S4.

> When something comes from SQA now, I take some time and wait and wait. I see if they adapt or adopt. I don't worry about it too much. My curriculum sense-making tends to come when I see how [it] is assessed, which is worrying because that can take two years. (Tim – first interview)

This exemplifies how personal factors shape advice-seeking behaviour in similar contexts (see Chapter 8). The data from the two teachers in Wales revealed a different approach to this issue, reflecting a collective perspective. One reason might be related to the timing of the research activities in both contexts, where Qualifications Wales had not yet released details of the new examination system, and where there was a recent change to some of the examination papers in Scotland.

> It is now no point to worry about GCSE and A levels as we don't know what's gonna happen. Estyn and the Welsh Government are not worried either. We are not the only school going through this process. (Karen – first interview)

This explains that, apart from personal factors, the ways in which curriculum principles are set and the timeline of curricular decisions at the national level equally influence how the teachers seek advice through curriculum making practices. For example, Titley, Davies, and Atherton (2020) argue that the situation in Wales could lead to the second phase in curriculum making practices, where performative pedagogical decisions would be made after the introduction of assessment and qualifications processes. This is, in fact, similar to what Smith (2019) observed in Scotland in the context of the History curriculum and how teachers selected content based on instrumental purposes.

6.5.2. Material support

Similar to advice- and information-seeking, the teachers sought material support through their content, assessment and several managerial-focused conversations. For example, the latter would include arranging laptops and sharing sitting plans or worksheets. This was particularly the case when the teachers worked in the same department and shared classrooms. In addition to these, though less frequent, educational research such as academic articles were also available in some networks. This indicates that resource networks can have a material and an intellectual focus in relation to the teachers' interests, concerns, curriculum orientations and what is available in the network.

> Because he (6G) is so new, he has really recent input from research findings, having just gone through that process. Sometimes you can become quite distant from it when you do day-to-day school. I do try to keep up with it, but it is time. (Kyla – ego-network interview)

> CfE is not fit for purpose, not resourced properly. […] CfE is a data desert. They (academics in his network) have research evidence behind it, so I like to listen to that. (Tim – ego-network interview)

In the context of Wales, it appeared that the new curriculum reform played a role in facilitating the structure and culture of the material support networks. For example, Rosy shared all the resources to inform about the new curriculum policy as well as teaching resources within her school, and to enhance the quality of curriculum making, which proved to be less likely in some cases:

> 5F is the only person I give all my resources. I don't do this with everyone. But because she is really good at making resources as well. She sends hers to me as well […] And I do sell my resources on Times Educational Supplement (TES), which are really popular. (Ashley – ego-network interview)

Reciprocity was also mentioned in some other cases. One potential explanation of the difference between individual and collective sense of curriculum making was a competitive culture:

> Some teachers would not like to share their courses. I can understand their view. If you are going to judge me every year on my exam results, why would I help someone else? It is also a part of the accountability agenda. (Tim – first interview)

6.5.3. Emotional support

Advice- and information-seeking and obtaining material support through networks were evident in all of the eight cases, whereas evidence of an emotional support network was not always observed across cases. Emotional support in curriculum making consisted of conversations about coping mechanisms, frustrations and supporting each other's mental health and wellbeing. Not surprisingly, the alters nominated as being very close were mostly included in this group. The teachers who had emotional support networks highlighted the value of multiplex connections and having shared concerns about curriculum.

It is quite good therapy to talk with 6B. I think we think the same way in a lot of frustrations in our school, the things we enjoy, and we love taking part in. We are quite similar. (Kyla – ego-network interview)

Overall, there were only 16 nominations from 74 alters with whom the teachers talked about emotional support in curriculum making. Given that emotional support was closely linked with other indicators of the quality of the relationship (Johnson, 2003), there needs to be greater emphasis placed on examining opportunities to expand this sub-network.

6.6. Influence of curriculum making networks

In this final section, I shall discuss the extent to and the ways in which the alters in the curriculum making networks were perceived as being influential. This was examined using the teachers' subjective rankings of influence on the three domains: sense-making; decision-making; and practice. Sense-making has been one of the critical indicators of a successful curriculum reform (Pietarinen et al., 2019). A second important indicator is that of decision-making regarding curriculum-related activities, and the final domain is practice, signifying the classroom- or school-level enactments. Table 6.9 illustrates the average degree of influence of the network in each domain. It appears that, overall, Erica's network was the most influential, whereas Tim's and Heather's networks were the least influential when compared to others.

Table 6.9. The degree of influence of the networks
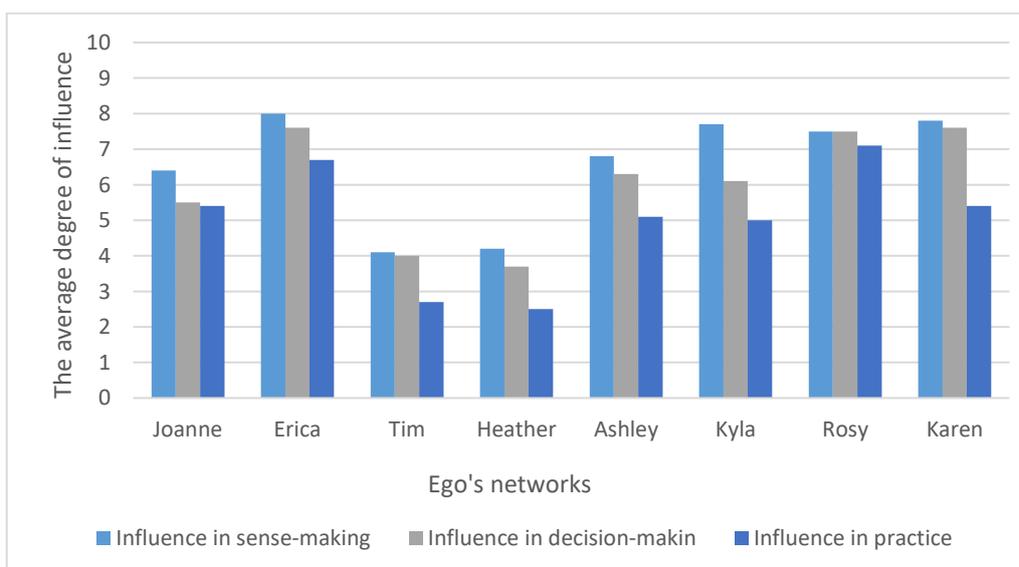
In order to make inferences, I examined the quality of the relationships to identify any patterns. Table 6.10 combines the average degree of influence of 74 alters with the indicators of quality of relationships to illustrate some patterns. The reference points (e.g., 6 for the degree of strength)

were decided according to the average degree of the indicators. An emerging trend is that there is a high level of influence on the three domains of curriculum making (sense-making, decision-making, and practice) when the relationships are stronger, more trusted, and emotionally close. The frequency of communication did not appear as a strong mechanism to understand the patterns of the variation. This is also due to the average frequency being fortnightly. The alters who were communicating daily were most influential on the three domains; above the average. But this pattern was not consistent when the ego had less frequent connections. For example, the degree of influence of alters who were communicating twice a term was also above the average. Some potential reasons for that were discussed in the frequency section (e.g., shared interest). Now, I shall explain each domain, providing some examples from the individual cases to offer a more in-depth understanding of these patterns.

Table 6.10 The average degree of influence by the quality of relationship indicators (6.6, 6.1, 5.0, respectively)

Quality of relationship indicators
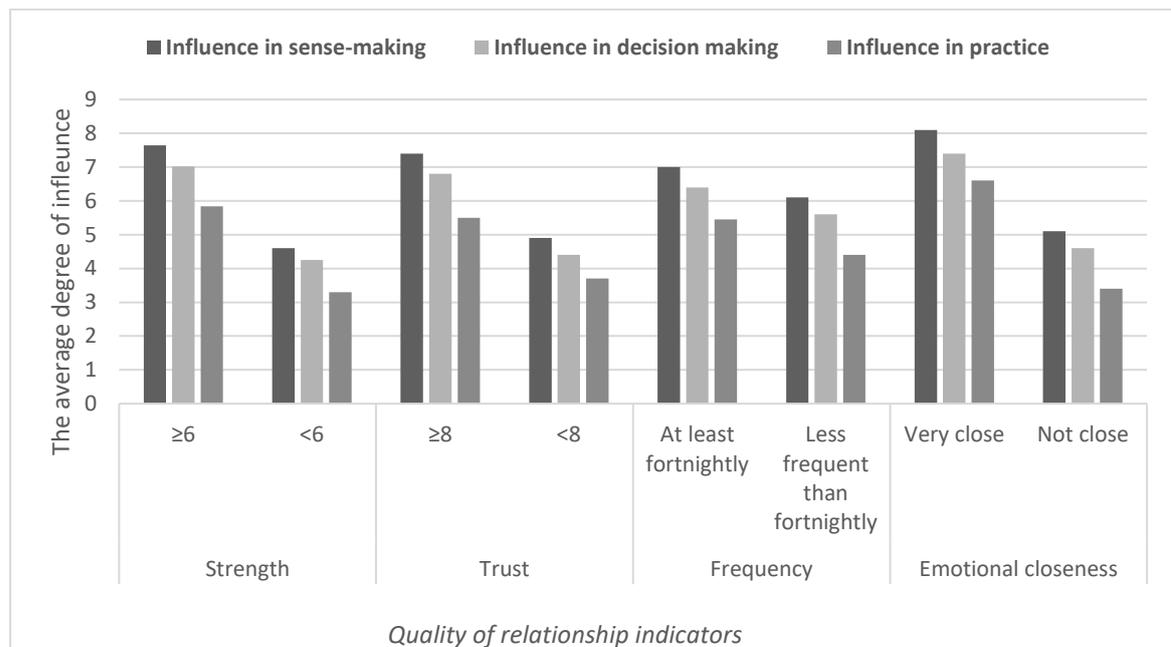
6.6.1. Influence in sense-making

First, sense-making was understood in different ways. Some teachers referred to it as being for clarification, whereas others perceived it as a way of building knowledge together by drawing on different expertise. There were some disagreements on the view that having the same subject expertise was one of the essential elements in sense-making. Based on that variation, the way in which the teachers ranked their influential alters also differed.

Seven out of 10 just because we have different backgrounds. There is less connection there I think. (Kyla – ego-network interview)

Looking at Table 6.9, there seems to be a relatively strong influence of alters, except in the cases of Tim and Heather. There was only one alter in Heather's network, 4E – a colleague – who had no influence, as it was her first year in that school and there was not an opportunity to work together until then. Other alters were influential to a varying degree. For example, we see relatively more influence from alters in Erica, Karen, Kyla and Rosy's network, when compared to the others. These patterns are important in helping us to question what makes these alters more influential and what this says about curriculum making.

As previously illustrated, the teachers' concerns and priorities played a role in the degree of the influence alters had. For example, having a link with the SQA was repeatedly mentioned as a reason why some alters were perceived as being more influential on sense-making compared to others, because the teachers were concerned about assessments and performativity pressures. These alters were also highly trusted, due to the expertise they possessed and how they facilitated conversations, especially those that were assessment-related (e.g., Erica, Ashley). Some teachers (e.g., Kyla) reflected on their own practice and felt more comfortable talking about curriculum making, especially to the alters beyond her school. Others felt that alters from different subject backgrounds were less influential, as there was a perceived lack of connection. Overall, one of the explanations of why, for example, the networks of Erica, Karen, Kyla and Rosy's networks were much more influential than Tim's and Heathers' is how their individual factors interacted with the structural and cultural factors. This will be explored in more depth in Chapter 8.

6.6.2. Influence in decision-making

Tim's and Heather's networks were less influential compared to others, similar to their examples in the previous section. The average degree of influence dropped in this indicator, except for Rosy's network, in which case it stayed the same. The number of alters who had no influence was also greater compared to the ranking of the influence in sense-making. Tim, Heather and Kyla were the ones who had alters with no influence.

The notion of expertise and the subject area emerged as one of the main reasons for a higher influence in decision-making. The teachers who were in favour of having SQA links for sense-making highlighted a similar factor in this domain. The more alters were knowledgeable about the assessment procedures, the more they were likely to be nominated as influential in decision-

making. What emerged differently here than in sense-making was revealed to have an emphasis on the teachers' professional judgements as a potential explanation of a lower level of influence:

> He (3G, an academic from social media – 2 out of 10 on decision-making) enlightens me and makes me think wider. I like the contrary view to make me think and convince me but I have differences on opinion as a practitioner so I don't act always. (Tim – ego-network interview)

It was also evident that the formal organization of schools also affected the extent of the influence of some of the alters in curriculum making. For example, head of departments and senior leadership members were influential due to their leadership positions.

> Nine out of 10. Ultimately he makes the decisions – not 10 though as there are always things that I don't fully agree. (Karen – ego-network interview)

Overall, curriculum making networks were less influential on decision-making, compared to sense-making. There was a tendency to become more selective regarding how the ideas make their way through sense-making to making decisions.

6.6.3. Influence in classroom practice

A similar trend continues here regarding Tim's and Heather's networks being less influential when compared to others. The overall degree of influence is lower for each network in this domain compared to the previous two. The teachers ranked some alters as being more influential due to perceived similarities and differences, in terms of their subject background, teaching styles and ideas about education, their contextually dependent interests and priorities, as well as the structural enablers and constraints. The effect of personal communications, which was particularly evident in the quality of relationships, seems less important to the degree of influence when the conversations were perceived as being meaningful (e.g., applicable in day-to-day practices), in line with their teaching philosophy.

> Nine out of 10. It is odd that in person to person, I do not know her very well. But she has a huge influence in my practice. I think we are because talking so much about how important creativity in education so it becomes quite close. (Kyla – ego-network interview)

Based on the empirical data, I argue that the SQA, and therefore assessment practices within a performative system, acts as a proxy to explain the degree of influence as well as subject background, shared concerns and context similarity or diversity. These proxies manifested

differently for each teacher. Hence, how the teachers projected their actions based on their concerns and priorities is important to investigate; in other words, their reflexivity, is crucial in explaining these patterns, an issue which I shall address in the next chapter.

Conclusion

This chapter explored the structure and composition of the curriculum making networks of eight secondary school teachers. I discussed the importance of examining individual, structural and cultural factors to better understand a range of dynamics of curriculum making networks. This chapter provided insights to enhance our understanding of who was included in the curriculum networks for what purpose, the quality of relationships, what flows in these networks, and how influential the alters were perceived to be in curriculum making practices. The next chapter will draw upon the internal conversations to understand the role of reflexivity in the ways in which the teachers mediate their way through curriculum making.

Chapter 7. Internal Conversations About Curriculum Making

Chapter 7 Outline

In this chapter, my focus shifts from external conversations to internal conversations, while acknowledging that they are neither two distinct entities nor fully intertwined. I shall address the third and fourth research questions:

> *RQ3: What are teachers' concerns and internal conversations regarding curriculum making?*
>
> *RQ4: In what ways do teachers' reflexivity (exercised in internal conversations) play a role in mediating curriculum making practices?*

As indicated in the previous chapter, there is always a 'human finalisation' (Donati & Archer, 2015) through personal reflexivity, in the ways in which we 'deliberate about ourselves in relation to the social situations that we confront, certainly fallibly, always incompletely and necessarily under our own descriptions' (Archer, 2007, p. 15). I, therefore, have three key objectives in this chapter. First, I shall identify a range of curriculum making related concerns. Second, in relation to these concerns, I shall discuss different social situations; in other words, different structural and cultural factors that the teachers confronted. Third, I shall portray a variety of internal conversations in the teachers' own descriptions about a range of matters related to curriculum making through Archer's (2003) ten mental activities, drawn from her internal conversation theory. While reflective diaries and internal conversations comprised the main data sources, the other data sources, such as observations, complement the data analysis and its presentation here.

7.1. Teachers' concerns about curriculum making

As discussed in the previous chapter, personal factors play an important role in how the teachers form their curriculum making networks, what they talk about and how influential the networks are perceived to be in their practices. It is therefore important to explain these personal factors, such as what the teachers care about most, what their priorities are, how their interests come into play, and what concerns them. To achieve this, three broad themes will be explored to illustrate such factors, all of which reveal different conflicts, struggles, and appreciations, and therefore paint a picture of what matters to the teachers with respect to curriculum making. These themes are: pedagogical ideals and/or realities; lack of support; and the new curriculum for Wales. The final section does not include the teachers from Scotland, although there are some cross-case

discussions; it nevertheless provides helpful insights to shed light on a variety of concerns that the teachers might have in the context of a new curriculum reform.

7.1.1. Pedagogical ideals and/or realities

In this section, I shall explain a variety of pedagogical ideals of the teachers and the ways in which they became a concern, a struggle or a conflict. All teachers who participated in my research aspired to do their best for their students in ways they consider effective. Different pedagogical beliefs, ideals and practices were evident, which in turn initiated different deliberative activities. Kyla was mostly concerned about the new Drama curriculum, in which she could bring her interest in creativity to curriculum making practices. Similarly, Karen, who was interested in the whole-school approach, and Rosy, with her priority of making the cross-curricular links through an interdisciplinary approach, were both able to project their interests into curriculum making practices in some ways. In fact, Karen's ultimate curriculum-related question was, '*What can other subjects bring into mine?*' These present an example of when personal interests and priorities align with the national/organizational curriculum policy/practice. There were also some contradictory examples.

Erica perceived herself as an advocate for active learning, and most of her internal conversations were related to this area of interest. In her words, she was '*the trip wife'* of her school; a way of describing her passion for active learning in her context. Her understanding of active learning is illustrated in the quotation below:

> Erica: There is a push now for active learning and I am totally supportive of this.

> I: Can you talk a bit more about what active learning means to you in your practice?

> Erica: Anything that gets the child involved in their own learning and taking responsibility whether that is a group task, whether that is taking them out and to get the movement, whether that is doing games and tasks where again they are up and moving around not sitting for 50 mins reading from a textbook and being bored. […] So for me it is an enrichment to show them [students] that there is a bigger picture rather than sitting in a classroom. (Erica – internal conversation interview)

Active learning is implied as a constructivist form of pedagogy in CfE documents to be applied at all stages (Scottish Government, 2010). Nevertheless, such a conceptualization would be argued as reflecting only one dimension of active learning, which is getting students physically active,

while not considering other dimensions, such as cognitive and affective dimensions, as Drew and Mackie (2011) highlight. However, Erica's main concern was having difficulties in applying this approach in senior classes, due to the need to prepare for National Qualifications examinations.[39] This indicated a conflict between her interest in one pedagogical approach and the way in which the examination system is structured, where there was a compromise to some degree. Erica was not alone in feeling that way, in this study and elsewhere (Craig, 2012; Crocco & Costigan, 2007). For example, Joanne was mulling over how she could transfer play-based learning approaches into her practice, which appeared to be difficult at senior level classes (S4-S5-S6). Tim disagreed with the suggested pedagogical approaches (e.g., active learning, interdisciplinary learning) advocated in CfE and presented a strong argument about examination pressures and his personal pedagogical beliefs (i.e., cognitive science of learning).

Interdisciplinarity was another common theme that concerned some teachers in different ways. There were two contrasting ideas: one being interdisciplinarity as an add-on to an already intensive workload, and the other being interdisciplinarity as a way of organizing and enacting the curriculum. For example, as mentioned previously, Karen and Rosy perceived interdisciplinarity as being an important component of the new curriculum in Wales. For example, reconfiguring subject departments into Learning Development teams can be evidence of this in Rosy's case. Conversely, Tim felt that there was not adequate time to develop an interdisciplinary curriculum and sufficient communication about the ideas about interdisciplinary learning in CfE at the beginning of the reform. He sought such information and research evidence behind these ideas from his external conversations, but did not obtain convincing answers as to how to apply these under performativity pressures. Consequently, he decided not to aim for interdisciplinarity in his curriculum making practices any longer. This suggests that there may still be a lack of conceptual, curricular, pedagogical and operational support in the context of Scotland, as Humes (2013) has emphasized.

Erica and Ashley, both History teachers, approached this from a different angle. They both stated that enacting a good curriculum is neither praised in promotions structures nor in job interviews. This is also related to their instrumental way of perceiving and enacting social practices, and ultimately their primary mode of reflexivity (see Chapter 8). They shared similar perspectives regarding curriculum making, such as perceiving curriculum as a tool to prepare students to obtain qualifications. Subsequently, what we saw was a shift amongst their concerns at the senior phase, from practice at Broad General Education (BGE) around ideals of active pedagogy, into a practice

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[39] Please see for further information: https://scqf.org.uk/interactive-framework/

where marking schemes would be a significant mediator in curriculum making. This also demonstrates an example of how the judgment of teaching impacts teachers' perspectives of curriculum making as well as their wellbeing at times:

> I am focusing on qualifications because this is how we are measured and I am accountable as well. […] I am more stressed around exam times. (Heather – first interview)

> Higher courses are bread and butter. That is what you are judged on. In August, we come back from summer and they will tell how well we did. (Erica – internal conversation interview)

Such concerns not only played a role in the curricular decisions at the senior level, but also in BGE in Scotland. One of the most recurrent concerns was about pedagogical and assessment-related decisions made in the design of S3.

> My main concern is that CfE is supposed to be the broad general education to the end of S3. But they are picking a subject in S3 and being encouraged to keep that subject in S4. So they start their qualification in S3. I can see the logic because we are accountable for something but that's not what we are supposed to be doing. The tension here is about what you believe is right and what is actually happening. Sometimes I don't have a say. I have just got to do what I have been told really. You are basically preparing them for the test then you are not giving the broad general education. (Heather – internal conversation interview)

Raffe (2008) explains this tendency for the endpoint dictating prior provision and termed it 'downwards incrementalism' (p. 30). This was evident in my research; the focus of content selection in some of the S3 courses, sometimes S1 and S2, too, was to increase student uptake in S4. This reflects the struggle and pressure for raising the attainment levels in Scottish schools, which, as Croxford (2010) states, would then challenge underperforming teachers and departments. Consequently, teachers found different ways of mediating this situation. For example, Joanne mentioned that they tried to *'teach the most exciting part and make sure it is not so difficult for that level if it puts off some students'* in S3. Tim said it was one of his biggest worries about curriculum making:

> I always feel S3 are the worst taught classes. When inspectors come out, we are told the week before and made some S3 material with taking off National 4 and National 5 because

we cannot have that. So a lot of people spend a lot of time relabelling the content. (Tim – internal conversation interview)

The teachers felt under pressure, due to several expectations, including, but not limited to: performativity culture as discussed above, the increased workload in different areas of curriculum, and having very limited time and sometimes a lack of motivation to meet all of the expectations. Tim described this situation with a 'Jenga' metaphor by saying: '*Just one thing to collapse and the person gives up*', which was the case for him (see Chapter 8).

Another concern was the structural change of departments in secondary schools in Scotland. The head of subject departments no longer existed, which was perceived as a pressure on the teachers' time and resulted in extra workload in curriculum making. Although Joanne experienced trusting relationships in her faculty, she was still unhappy about the Head of Faculty being from a different subject background:

> As we no longer have heads of department and only a head of faculty, the unpromoted Chemistry teachers have had to produce the Chemistry review (this would normally be completed by the head of department) dealing with all the recently published Insight data for the senior classes and highlighting what has gone well this year and what hasn't. This has been very time consuming and took up most of our Chemistry meeting on Tuesday along with the science meeting on Thursday and my Wednesday lunchtime, too. (Joanne-reflective diary)

Similar tensions were evident for all of the teachers in Scotland, except in Erica's school, where the head of faculty had a History background, which was seen as a contribution to her curriculum making practices. As mentioned in the previous chapter, Ashley argued that the head of faculty would develop the curriculum in his/her own subject area, and would not be interested in other subjects in the faculty. Moreover, Ashley thought that the head of faculty would not be aware of how much effort she put into curriculum making. Apart from time-related concerns due to the change in departmental structures, Tim described this issue as '*losing the subject curricular expertise*'. These concerns occurred partly as a result of a perceived lack of emotional and organizational support from the heads of faculties. I also argue that this is also dependent upon how the subjects in the faculties are conceived to be integrated. For instance, Erica and Ashley, both History teachers, had different opinions on the possibility of the contribution of the subject matter knowledge of Modern Studies, History and Geography in their faculties. While Erica saw the potential benefits, Ashley did not mention these.

Overall, it was evident that the teachers shared some of the concerns, as well as having different ones, although they differed in the description of their concerns and projecting their actions based on them. Some took a more instrumental approach, whereas others were more critical of the demands of curriculum reform. Modes of reflexivity are powerful tools to explain these differences. Before discussing the distinctive ways of mediation of curriculum making in the next chapter, I shall examine a perceived lack of support that consequently shaped the teachers' concerns and actions in the next section.

7.1.2. Lack of support

In Chapter 6, I explained different supports that the teachers obtained through their curriculum making networks (e.g., advice, emotional, etc.). In this section, I examine support by looking at structural and cultural enablers and/or constraints as perceived by the teachers. I shall start with concerns related to structural factors, such as the organization of macro and meso curriculum making and the lack of communication between key actors.

There was a common criticism of the lack of support for curriculum making at these sites, especially amongst the teachers in Scotland. Tim, Joanne and Ashley were particularly concerned about this, even emphasizing different aspects of the issue. For example, Joanne, who worked as a marker in the SQA, highlighted a lack of collaboration between schools in Scotland for curriculum making.

> At the SQA meeting today, I asked a couple of Chemistry teachers who work in different parts of Scotland and how they put their S3 Chemistry courses and whether they share the load with other schools. Both of them said they wrote their courses themselves. I think this must happen in almost every school which seems like madness. Such a lot of duplicated work. [...] And you can tell that none of these things [conversation with other people to collaborate] happens through formal channels. The sharing is all as a result of wee conversations we have when we get out of our schools and meet others. (Joanne – Reflective diary)

This quotation indicates the importance of beyond school connections and meso support to enable collaborative curriculum work. Similarly, Tim pointed out that the whole system lacked efficiency because the capacity of curriculum making by teachers was perceived to be not utilized effectively. He added about the need to question the quality of this capacity:

> Tim: What wins or is adapted is what is first. That could have been then a de facto what Scotland uses.
>
> I: Can you think of any suggestions to tackle this?
>
> Tim: I am too tired to think about any suggestions. (Tim – first interview)

Such internal conversations, which did not lead to any continuous purposeful actions for Tim, were evident throughout the research. These will be examined in relation to the fractured reflexivity mode in the next chapter. A contrasting example was mentioned by Ashley, where the local authority organized an event to gather History teachers together to work on new Higher Courses. Although the local authority arrangements were not received as being adequate in terms of time and material support, that space enabled the teachers to talk further about curriculum making after these formal meetings. This demonstrates that meso curriculum support can in some ways facilitate relational events, so that teachers can develop relational states for further conversations and collaboration to happen (Coburn et al., 2013; Woodland & Mazur, 2018).

In micro curriculum making, institutionally mediated relationships may need detailed exploration as the collaborative curriculum making might be superficial; as was evident in Heather's case.

> We are working together but some people plan what is easier for them rather than what is best for the pupils. At the end of the day, we would split the work. You do this and you do that. Department does not do a collaborative work. […] I was telling to my partner, I did not find my people yet. I like working collaboratively, they hate it and they say nobody likes working collaboratively. (Heather – internal conversation interview)

Rosy's and Karen's networks are important to consider here in drawing some insights, as the new curriculum for Wales underlines that kind of collegial support within and beyond schools (Welsh Government, 2017a) through cluster meetings, local curriculum advisors, and pioneer schools approach. To start with Karen, she was a pioneer teacher for Expressive Arts and was seconded for curriculum making at the national level for two days a week. This process enabled her to engage with several experts, pioneer teachers both in her subject and in others, in the meetings in which there were conceptual, academic and practical conversations about curriculum making. The support included providing the expertise (e.g., curricular and subject expertise), a space and time for explaining the rationale of change (at the early stages), the current practices and some trials (at the later stage) in schools. She also highlighted the space and opportunity that they had for initiating innovative approaches and taking risks.

It is the case of reassuring the school, things may not work. Estyn [the Inspectorate] knows that it is the case. They are part of the pioneer group. It is getting schools to realize that it is okay to make mistakes. (Karen – first interview)

This final remark was also one of Tim's main concerns, when it comes to meso curriculum support. He argued that there was a disproportional response to teachers making mistakes and *'teachers can be blamed for anything.'* Rosy, from a non-pioneer school, commented that such trials happen 'in-house', rather than receiving some support from pioneer teachers. Karen's statements supported this claim that the meetings in clusters proved to be difficult. The frequency and intensity of the communications between pioneer and non-pioneer schools in Wales have been criticised elsewhere, too (e.g., Arad Research and ICF Consulting, 2018).[40] I shall present how this was perceived from Karen's and Rosy's standpoints. To begin with Karen, she admitted that communication with non-pioneer schools was not at the level that she would like it to be.

We don't really have a cluster group. We have got a school which is quite far. Unless we feed back through Twitter chats, there is not really an engagement. That is a worry. (Karen – first interview)

Apart from proximity-related issues, there is also the possibility of reluctance to, or disengagement with, commencing the curriculum work in some of the non-pioneer schools.

We had the headteachers meeting and 8A [headteacher] asked me to present the new curriculum. They could pick and choose from different sessions. None of them came to mine. Those schools are not pioneer schools and I will feed back to the Welsh Government. They don't see it as a priority. (Karen – first interview)

Another perspective in Wales was from Rosy's school, a non-pioneer school. The senior management team members, including Rosy, were all interested in the curriculum work and they attended regional meetings about the new curriculum. Rosy mentioned that:

I attended a curriculum update for Heads and SLT this week – 3 hours session. [The regional advisory service] are running sessions to inform us of the changes to the curriculum. The first part of the session was informing staff of the changes to the curriculum. There was nothing new and really would have only benefitted staff if there

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[40] The full report can be found here: https://gov.wales/sites/default/files/statistics-and-research/2019-06/180712-formative-evaluation-pioneer-school-model-summary-en.pdf

had no understanding of the curriculum. However, I found this reassuring as we are already well on our way to planning the new curriculum. (Rosy – reflective diary)

This demonstrates that non-pioneer schools had a chance to be part of ongoing curriculum reform events. What facilitated this engagement was mainly the regional advisory service's support, which may not happen elsewhere at the same depth and breadth, as well as motivated senior leadership with readiness for change, as Rosy's case showed. Thus, meso curriculum making is too multidimensional and relational. For example, the existence of support mechanisms may not be actualised, due to the reasons I mentioned and potentially more. This is important, as curriculum making is an ongoing process, and therefore there will always be a need for such support to leverage the quality of micro curriculum making practices.

A similar potential support mechanism in Scotland – fairly new at the time of the research – were Regional Improvement Collaboratives (RICs). These were not mentioned in any of the data sources in the context of Scotland. Four organizations thought to be related to curriculum making were Education Scotland (ES), the Scottish Government, local authorities (only one), and the SQA, to varying extents. There was an agreement amongst the teachers from Scotland on the lack of communication between the SQA, the Scottish Government and teachers themselves. Erica and Ashley, who had emphasized the product aspect of curriculum and reflected the Social Efficiency ideology, were particularly concerned about this, which therefore resulted in them seeking support to obtain some instrumental help through some of their connections, as shown in the previous chapter. This lack of communication mostly involved assessment-related changes and was reflected in internal conversations.

> They [SQA] will send some materials in July but they will not show an example paper by November so we will teach like blind […] 5A [the closest colleague] marks for Advance Higher so she will get the information from there. That's the information that you get when you are a marker. That's not fair in Scotland, although they won't admit that. (Ashley – internal conversation interview)

This fairness aspect was a repeated concern, as having links with the SQA was deemed to inform curriculum making practices, which potentially created some gaps in terms of making sense of the exam-related changes. This flags a critical element of the perceived support mechanisms in Scotland; an emphasis on attainment levels and pressure on teachers, as a result of accountability practices, may result in an unbalanced impact of assessments in education. This was mainly

because the SQA was seen as a steering mechanism and as being detached from teachers' practices, needs and concerns.

ES was another organization perceived to provide limited support for teachers. Tim argued that the language they used in their website indicated their understanding of support as challenging teachers. The common concern was mostly related to the inspections they carry out in schools and the way schools were doing 'gaming exercises'.

> Another conflict in my head included the gaming involved with HMIE. We were given 'Help Sheets' by SLT and warned what they would and wouldn't like to see in lessons. If this had been so crucial, why not communicate this years ago? There was an internal conflict in the instructions given us not to 'approach nor communicate' directly with HMIE during an observation. I ignored this due to my experience of inspection 4 years ago when classroom pedagogy was not reported fairly. (Tim – reflective diary)

So far, I have set out the teachers' pedagogical ideals, and conflicts that are often inescapable in teachers' collaborations (Achinstein, 2002), and a lack of support in different contexts as a cross-case discussion. I shall now turn to discuss particular concerns identified by the teachers in Wales to illustrate what questions, possibilities and practices a new curriculum reform may bring to teachers, through internal conversations.

7.1.3. The new curriculum for Wales

Here I draw upon only the context of Wales for two reasons. First, although I offered some examples from Rosy's and Karen's narratives in the previous sections, some particular contextual factors need to be examined. For example, curriculum provision has been a major discussion point only in the context of Wales, which was required to consider the reconfiguration of the subject departments. Secondly, Rosy and Karen were both engaged with macro curriculum making practices to a varying degree and capacity, and none of the teachers in Scotland had a similar experience. It is important to expand on such engagement to illustrate how the same actors might traverse between different sites (Priestley et al., 2021).

I shall start with some of the personal factors of Rosy and Karen in relation to curriculum making practices, some of which will be later discussed as personal emergent properties. First, they took self-motivated curriculum-related roles; Rosy as a curriculum lead, and Karen as a pioneer teacher. They were both engaged with the progress of the curriculum work (as evidenced through their attendance to meetings and their narratives about the new curriculum), while Karen had a more

insider perspective through pioneer schools meetings. They believed that the change was needed and both agreed with the vision of the new curriculum. These personal beliefs and commitment to the work they had been doing proved to be important, especially when it came to getting all the school staff on board, which was one of the fundamental concerns for both of them. This, in fact, played an important role in how the change progressed in the two schools. It appeared that this was a challenging task for both Rosy and Karen.

> It is not just me getting on with it. [...] Some staff feel overwhelmed but they've got to get on board. I know the majority of people will be on board. That is our job to support and taking them onto a journey. (Rosy – first interview)

> The biggest thing is for us to give time to staff to read it [the new curriculum drafts] [...] I think certain members of staff are in certain parts of their career when it all kicks in, they will be retired. [...] There will be resistance. It needs to be eased in. (Karen – ego-network interview)

The above-mentioned resistance played a major role in micro curriculum making and led to a delay in progress, compared to Rosy's school. Such resistance is well documented in the literature. For example, März and Kelchtermans (2013) stated that curriculum implementation is very much dependent on the congruency between teachers' current practices, beliefs and values, and the curriculum reform. In this respect, Karen felt slightly anxious and was concerned about the way in which the new curriculum would be perceived by the staff, which was reflected in her internal conversations.

> Will they really fully appreciate or understand the whole concept of this? Or are they just going, 'Ok, we have got this curriculum, what do we need to follow?' Is it going to affect their pedagogy? Or how can I influence that? Do I really want to influence that? Because I really want them to develop their own. Or can I facilitate it in a way that actually I am pushing them to their limit? (Karen – internal conversation interview)

She acknowledged that she had not updated the staff as much as she thought she would for two reasons. The first was about the intensity of the workload, and the second was that she did not want to confuse them by presenting them with several drafts. She preferred to take cautious steps to address certain reservations.

Additionally, curriculum provision was a concern, especially for Rosy, as she had the sole responsibility for timetabling. She felt frustrated due to the uncertainty in meso curriculum

making (e.g., budget, 6th form curriculum) and the change in staff working hours throughout that term.

> Throughout the week, I had many moments of feeling that this job was not for me. At times, the pressure and responsibility were overwhelming. The time taking to plan the curriculum is huge and has impacted on my work-life balance (or lack of it). Every time something new comes to light, for example, a staff member drops down to 90% instead of 100% or trying to fit in a new subject in year 12, the staffing hours for all staff needs to be revisited – this takes a considerable amount of time. (Rosy – reflective diary)

Karen was also concerned about timetabling, yet she was not responsible for managing it. One of her struggles as a pioneer teacher was related to the national level expectations of the Expressive Arts Areas of Learning and Experiences (AoLEs).

> That word 'consistency' bothers me. Why does it need to be consistent? Is it in terms of terminology? Is it in terms of how specific or broad they are? Which will cause major problems. […] I don't know what they are looking for when thinking of consistency. (Karen – internal conversation interview)

The conceptualization of consistency has been also a point for discussion in some research undertaken in Scotland. For example, Hayward and Hutchinson (2013) suggest that the conversations between teachers, policy-makers and researchers, as was happening in Wales to some extent, should occur to tackle the risk of assessment being the driver of the curriculum by interrogating narrow definitions of consistency or standards. Moreover, Karen suggests that such conversations need to be carefully organized to mitigate a lack of clarity. If not, there might be a risk of raising mistrust.

> They then have suggested that some of the *What Matters?*[41] statements are flowery. The problem you are getting then is 'Have they already decided what they want?' (Karen – internal conversation interview)

I have mapped out some concerns which emerged as a consequence of the new curriculum reform that were reflected in Rosy's and Karen's internal conversations. The teachers' engagement in self-motivated curriculum-related roles and cultural factors in their schools seem to generate

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[41] These statements include the 'big ideas' in each Areas of Learning and Experiences in the new Curriculum for Wales. See for Expressive Arts: https://hwb.gov.wales/curriculum-for-wales/expressive-arts/statements-of-what-matters/

different concerns and shape how the change progressed. Now, I shall continue to establish the teachers' internal conversations by drawing upon the ten mental activities (Archer, 2007), which are related to their major concerns, to explain the ways they manage to navigate their way through curriculum making.

7.2. Internal conversations about curriculum making

As mentioned earlier, internal conversations are the internal dialogues considering ourselves in relation to our concerns, and priorities to act upon; and through these conversations we exercise reflexivity (Archer, 2007). Archer (2007) fundamentally argues that, even though we all have these internal conversations to make our way through the world, they are not universal. Instead, they are contextually dependent, meaning that they are not static and can change depending on a variety of reasons. This is particularly important in curriculum research, as the better we understand why teachers act in certain ways, the more targeted support can be provided for effective and sustainable curriculum making practices.

All teachers in my research confirmed that they had internal conversations related to curriculum making, albeit varying in frequency and intensity. Some factors (e.g., curriculum reform) fostered their internal conversations or sometimes resulted in inconclusive and frustrating internal dialogues. The place and time for having internal dialogues also varied. For example, Karen found her 'physical head space' while commuting every day alone, whereas Rosy had internal dialogues especially before meeting with people.

My access to the participants' internal conversations happened on different occasions. For example, some teachers revealed their internal conversations explicitly during teaching (e.g., Tim), some of the internal dialogues were accessed through reflective diaries (e.g., Rosy), and the majority were from internal conversation interviews as well as from a combination of different data sources. The teachers' quotations have been selected to organize the following sub-sections of this chapter, considering how representative and helpful they are to convey the messages of the teachers' internal conversations on curriculum making. Thus, the sub-headings within sections will include a range of mental activities to indicate the focus. This is also because 'the key feature of reflexive internal talk is silently to pose questions to ourselves, and to answer them, to speculate about ourselves, any aspect of our environment and, above all, about the relationship between them' (Archer, 2007, p. 63). I believe they represent the way in which the teachers speculate about themselves and the interplay between different factors, which is helpful for (re)contextualising internal conversations in curriculum making.

7.2.1. 'I organize chaos'

Erica's quotation above underlined the complex process of curriculum making by teachers through engaging in different mental activities. These included, but were not limited to, content selection, arranging whole-school activities, timetabling, multi-level teaching, and assessment. From this perspective, curriculum making proved to be particularly challenging in the context of Wales, as it felt as though *'Every day, there is something new'* (Rosy). In the following sub-section, I shall present examples of some of the ten mental activities, such as planning, deciding, budgeting, prioritising and clarifying, which formed the teachers' internal conversations.

Planning

All of the teachers indicated that they engaged in this activity, for example, when organizing learning activities, and thinking about curriculum provision, departmental practices, and time allocations. The type of questions ranged from meeting the Benchmarks (Scotland) to thinking with big ideas about curriculum. An example for the latter was that Joanne was planning to make the content relevant and challenging for students, to address some prominent global issues, such as the climate crisis.

Besides day-to-day lesson planning and organizing their annual timetable, what made the teachers perceive some of the planning as 'chaos' lay in the influence of other factors, which affected their planning and therefore their internal dialogues. One of the most recurrent issues was the number of part-time teachers, which made time allocation difficult, for example. This was particularly evident in the context of Wales because, at that time, Rosy and Karen were working on curriculum provision, as mentioned in the previous section.

> It is very challenging as you are trying to meet the requests of staff in teaching their first subjects, coverage of the curriculum, getting the right staff in the right place, working in the sixth form of consortium and timetable part-time staff (1/3 of staff are part-time). (Rosy – reflective diary)

Additionally, staff turnover meant that the teachers had to plan for unexpected circumstances such as teaching in a different subject or at different levels.

Budgeting

One of the recurrent questions appeared in the internal conversations was; '*Do I have time and money for this and/or is it worth my time and money?*' (Joanne). This was evident in, for example, deciding on the detail of feedback to be given students, which depended on the time of year

(Joanne), or decisions about weighing up the pros and cons of actions relative to students' learning while promoting equity (Kyla).

> I mean definitely, I do have internal conversations about whether I can afford the time or whether it is worth the effort. For example, how much feedback I write in a piece of homework, is it worth the time to give that individual feedback or would I be better to have one of a whole class conversation and pick up on the key points so I think I do certainly a balance of these things? If it is a time of the year where we don't have so many things going on, maybe I would write individual feedback. (Joanne – internal conversation interview)

Some teachers commented on the monetary aspects of budgeting in organizing learning activities. For example, Erica and Ashley both commented on the lack of budget available in the school. Erica considered this as an obstacle for active learning, which was her fundamental pedagogical ideal, especially in relation to Broad General Education (BGE). While Ashley felt a lack of motivation to overcome this budgetary problem, Erica sought instrumental support through some enterprising activities, such as selling Scottish tablet (sweet baking products) to organize an extra-curricular activity. Similarly, Karen felt confident about accessing the budget through her network.

> I am very good at budget. If I need to find money, I will. If the school does not have the money, I will find a grant out there. […] It is about being resourceful as well. […] I would go to the potters and I would say, 'Look have you got any that you are not using, can we have it?' […] I think it is because of the nature of my subject [Art], 450 odd kids in this school, can you imagine the connections? So it is all about building relationships. (Karen – internal conversation interview)

This illustrates how different teachers took different stances towards a similar problem and projected their actions. What makes this difference is partially due to their modes of reflexivity; relational goods (Donati & Archer, 2015) emerge from their networks and the social context in which they work (see Chapter 8).

Deciding

In organizing such complexities, all of the teachers felt that internal conversations related to deciding that was focused on what is best for the students and their learnings. Some teachers (Ashley and Erica) found it easy to come to a decision, while others mentioned how much time it took to consider the pros and cons of a situation.

I tend to be quite indecisive. Most recently, I just had it temporarily because of staff shortages. And we had real issues with behaviour management within that class so I was trying to create a curriculum that was going to be engaging and challenging and allowed if necessary for independent learning. That was a bit tricky. (Kyla – internal conversation interview)

Sometimes, this decision-making activity was also related to managing requests from the senior leadership team.

I: What about internal dialogues about deciding?

Heather: I had one today. I needed to decide what is best. I had an appointment with B&Q [a retailing company] to get resources for the vocational training centre. Headteacher wants me to attend the year of the young people celebrations in the castle. What should I do moment. So If I go to the castle, I would not learn much and probably it would not benefit me. But Headteacher is asking so you are kind of … A bit torn. I thought about it overnight. I then decided that I can call B&Q to ask if they can rearrange. I ask 4D [a strong and trusted relationship] if he can go on behalf of me to B&Q so he will. I know that we need free stuff. (Heather – internal conversation interview)

Hence, seeking help from the networks was one way of concluding internal conversations. This was particularly evident when deciding on curriculum provision for Rosy. This will be discussed later in relation to communicative reflexivity.

Rosy and Karen, as mentioned before, had time and space devoted to curriculum making, which was not the case in Scotland. Thus, some teachers in Scotland argued that their internal conversations about curriculum making have become very frustrating. Hence, they had to make decisions based on cost-benefit analysis or starting to say no to things, which required to prioritise something over.

Prioritising

Internal debates regarding prioritising had been influenced by some structural and personal factors. In Wales, Rosy and Karen had to prioritise the 6th form curriculum when making curricular decisions, for example, and therefore Rosy's internal talks included some references to that.

When I have started timetabling, you get the 6th form first because we are tied. (Rosy – internal conversation interview)

Another example of a structural factor is the changes in SQA exams in Scotland, which triggered internal conversations on what to prioritise in curriculum making practices.

> We prioritise brand new Highers coming in. We still not perfected the new Highers this year. For BGE, we can't prioritise this at the moment. […] If we don't change BGE course now, no one is going to die, nobody falls an exam; but, if we don't change Advance Higher course, kids gonna fail. (Ashley – internal conversation interview).

Exam classes have been also a priority for Heather in terms of allocating her time because she felt accountable for that. Because the lack of time had been a concern for all of the teachers, Tim was particularly critical of spending extra hours for curriculum making, which was perceived not to be resourced properly at micro, meso and macro sites. Amid all mixed messages in the system, as he saw it, he prioritised students' learning and said no to things that he disagreed with.

As for teaching in multilevel classrooms (e.g., teaching students who will sit National 4 and National 5 qualifications in the same classroom), it felt challenging to allocate sufficient teaching time for students from different levels. Thus, there was a variety of internal debates while the teachers needed to prioritise. For example, Joanne felt very unhappy spending half an hour for only one National 4 student in the class, while spending the other half with 19 students, mainly due to a lack of learning assistants. She then initiated a sixth-year peer-mentoring programme prioritising the equity for all students' learning. In contrast, Ashley assigned a task for National 5 students. while she was teaching to Higher students.

Clarifying

Timetabling, Rosy's major concern, triggered some internal conversations when she was first trying to clarify things for herself and later to her colleagues about the potential changes.

> I do that [clarifying] all the time. Again, timetabling, you look at it, as there can be clashes between staff and certain pupils. You try to sort it what days they are off and they are working. Sometimes, they [teachers] have gotta teach slightly different subjects and you are trying to think what issues it may rise. I have a list of people for tomorrow['s] meetings that I will have a chat [with], as they will be affected by changes. […] So I clarify first why it is happening and if he has the skills and what I can do to support them. (Rosy – internal conversation interview)

The new reform-related changes prompted such internal debates for both Rosy and Karen, especially before meeting their colleagues, as they felt that they should get everybody on board

to make the changes happen. Clarifying was therefore perceived as essential to organize such a complex array of changes.

7.2.2. 'Are we all reinventing the wheel again?'

As discussed in the previous chapter, the teachers formed various connections to satisfy different needs and sought a range of expertise and support. There was a common concern in Scotland about a collective culture for curriculum making. A lack of meso curriculum support was seen as a prominent reason, which in turn prompted some internal conversations amongst the teachers. Here I shall present two examples from the ten mental activities in this section. These are mainly related to the collaborative aspect of curriculum making.

Mulling over

As underlined in the first part of this chapter, a lack of collaboration has been one of the common concerns. Joanne, as mentioned before, was concerned about curriculum making being a duplication of work and she was mulling over this through her internal conversations.

> I do probably dwell upon problems. Actually, the conversation we had earlier about SQA meetings that I went to, so I ended up speaking some of the people there about curriculum. That was because I was dwelling upon an issue in my own school and I was thinking here is a chance to ask others. […] Because I was mulling over a long period of time. Hanging over me for a few months perhaps. There are still things which I am sort of mulling over and waiting for opportunities to explore them further. (Joanne – internal conversation interview)

Joanne was not the only one who conducted her internal conversations on this issue and needed external conversations to finalise her internal deliberations. This was similar to Rosy, as discussed earlier. Tim and Ashley also argued about the lack of collaboration, but in fact, had different opinions on the culture of sharing. Ashley shared her resources only if the relationship was reciprocal, whereas Tim shared his all resources, whoever requested, because of his core beliefs about education.

> Some teachers would not like to share their courses. It is part of the accountability agenda. If you are going to judge me every year on my exam results, why would I help someone else? But I have a wider view. All children deserve good teaching. (Tim – first interview)

Although both Joanne and Tim mulled over the same topic, the texture of their internal deliberations was not the same. Tim acknowledged the systemic pressures (e.g., accountability practices) on teachers and had been critical of not having time and space for curriculum making, yet he did not contemplate the instrumental benefits of selling the resources. In contrast, Ashley too argued on the same issue while indicating a propensity for selling her resources on a website. One of the important contributions of my research is the argument that practising different modalities is profoundly important to understand why we observe such differences. This will be discussed further in the next chapter.

Clarifying

This mental activity was mostly devoted to making sense of the change and potential issues related to disseminating information to colleagues. I shall particularly focus on sense-making, as it is related to the feeling of reinventing the wheel again, which was particularly evident amongst the teachers in Scotland.

The teachers raised some questions while trying to clarify some issues in their heads, such as: *'What do the benchmarks mean?'; 'What do I have to achieve?'; 'Is there any checklist to decide at which level the student is?'; 'Do I know what they talk about in this meeting?'; 'Am I right in thinking …?';* and *'Right, this is what I know and this is why I need to do it, so let's move on?'*

It was evident that internal debates related to sense-making were extended to external conversations sooner or later. This indicates, first, the importance of examining the interplay between internal and external conversations, and second, the significance of support mechanisms in change management, sense-making and making decisions. This aspect of change was what concerned the teachers most, and also shaped internal and external conversations, as demonstrated in their networks.

> I tend to mull things over and go out and talk to others to help me clarify. (Joanne – internal conversation interview)

> I do a lot of that especially when something changes. I talk to 2A and 2B [her closest colleagues]. (Erica – internal conversation interview)

There was a perception of curriculum making being a 'duplicated work' as Joanne wrote in her reflective diary. Ashley made a similar argument, drawing on the only local engagement in the six networks of the teachers in Scotland.

I: How much does 5B influence your sense-making from 0 to 10?

Ashley: Not very high to be honest, 2. It is a shame, it should be much higher. If we could have in-service days, we could be sharing because we are reinventing the wheel all of us. (Ashley – ego-network interview)

This quotation points to an area where schools and local authorities can shape teachers' practices by creating opportunities for teachers to create sustainable and satisfactory curriculum making practices.

7.2.3. 'Are we making a quilt, with lots of ill-fitting clothes in here?'

Curriculum making is a complex web of enactment (Priestley & Philippou, 2018) and Tim's quotation above captures this complexity. Several domains need to be taken into account (e.g., pedagogy, assessment, curriculum purposes) and, as mentioned earlier, some teachers felt lonely and unsupported during that process at times. The ten mental activities were all mentioned under this theme, but four of them will be discussed here together to indicate the integration of these activities with each other.

Clarifying, Deciding, Imagining, and Rehearsing

Tim retrospectively revealed his internal conversation about the time when CfE was first introduced and provided an example of a curriculum making exercise.

> In those days, my internal conversation was 'look, I need to do all these things?' I would look at principles, which I cannot recite now, and looked at the Science documents, and there were 7–8 principles like what should happen in Science, and they were like enquiry, investigation, activities, reports, etc. My initial thought was how do I do all these things now? All I knew then was, we would write a topic and then we would try to put a bit of enquiry, debate, a bit of research. How do I populate it then? I would then take our current courses and pop all the stuff in and take all the stuff that seem to disappear. And pop more stuff in, and then, 'Oh, we need some research, enquiry', and that was a bit of, making a quilt with lots of clothes, and I was not convinced that all fit in together. (Tim – internal conversation interview)

As shown above, Tim found it difficult to rationalize such complex integration, which was different compared to the previous habits of curriculum making. Because there was a perceived lack of support to clarify, he decided to keep some of the old practices and utilize the new reform language in documentations. Such practice resonates in other internal conversations as well.

Except for Kyla, all of the teachers in Scotland acknowledged the ways in which they used the Benchmarks and Experiences and Outcomes as a starting point for curriculum making. Ashley, who also followed a similar process, was rehearsing in her head as she was making the course, unlike Heather, who had only a plan on how the lesson would go. Kyla, after the creative summer school, which felt like a milestone in her pedagogical approach, focused on the big ideas.

> He [6F – an education specialist from the creativity summer school] advocates a big question. So starting with something that is either from you or from the kids themselves. And that unit of work could come out from just this question and it is so flexible that you can go a lot of different tangents. You can use it for many curriculum outcomes and organizers as you like. (Kyla – ego-network interview)

This also indicates the potential of networks to change the texture of internal conversations, and subsequently how a person imagines a different possibility of making a curriculum. Additionally, the mode of reflexivity that teachers practice also explains these differences as well as how these former curriculum making practices may trigger a certain modality. For example, in Tim's case, I argue that these unsatisfactory experiences and a lack of support might play a role in forming a fractured mode of reflexivity (see Chapter 8).

7.2.4. 'What would happen if we pull the curriculum apart?'

The question in this sub-heading was drawn from Joanne's interview and it was being actualised in the context of Wales in many ways, where the teachers were required to consider different questions and possibilities of making a curriculum. In fact, the first introduction of CfE felt similar to some of the teachers, as an opportunity to imagine education differently. Hence, imagining, as one of the ten mental activities, will be the major theme to discuss internal conversations of the teachers in this section, in addition to mulling over.

Imagining

The internal conversations of Rosy and Karen, from Wales, had the aspects of 'imagining' of the ten mental activities related to the new curriculum.

> Especially now with the new curriculum because nobody really knows so it is open to more imaginative outcomes. […] I always think whole school now. I'd like to see the bigger picture. What I would start to our planning session is, right what does a 16-year-old Expressive Arts student look like? When I first started, it is like, what we are doing this term? And not thinking in a much broader sense. (Karen – internal conversation interview)

Another imagining activity related to curriculum making in the context of Wales, was related to curriculum provision.

> Going back to timetabling, you look at it from the view of students, staff and also from curriculum development side, and you are planning the content and skills, so you are thinking of what it will all look like? Are they going to see the links between subjects? (Rosy – internal conversation interview)

The emphasis on cross-curricular links and interdisciplinarity was also a concern of Joanne, but she felt that this was not achievable in her context.

> I sometimes imagine what would happen if we pull the whole thing apart and start over again in terms of interdisciplinary learning. There is so little of it. It is so difficult and it is seen as an add-on. You want to be authentic but it is so difficult to organize. So part of me thinks, just pull all things apart. But that is not gonna happen. (Joanne – internal conversation interview)

I argue here that Joanne was inclined to imagine different future possibilities, but that this was hindered by potential structural and cultural factors, such as a lack of motivation among staff or perhaps the difficulty imagining what interdisciplinarity looks like in curriculum making. This brings us back to the discussion of providing meso curriculum support to teachers. Teachers' networks provide a good place to start identifying some opportunities, for example, to provide required support or enhance already established connections. Tim underlined this by stating his internal conflicts, regarding how to imagine interdisciplinarity in a classroom context when there was not any satisfactory explanation, which required a piece of empirical evidence, and examples of day-to-day practicalities. What we see in Erica's case is a similar example of how structural pressures can influence internal conversations:

> I: What if there are no exams or marking schemes, what would you do at the senior level in terms of curriculum making?
>
> Erica: It depends on what the people at the top are telling. If it was me making the judgement, well done, you get the Higher A. You could plan the course to give the opportunity to show me how you should have a Higher A. We can video, document to provide any evidence. (Erica – internal conversation interview)

As the quotation illustrates, there is still a trace of the influence of performativity culture and the feeling of being held accountable. These are some signs of underlying mechanisms that are not directly observed through teachers' empirical actions (see Chapter 9).

Mulling over

The introduction of a curriculum reform could open up spaces to make intended change happen (Kirk et al., 2018), depending on different factors, such as the intensity and pace of the reform (Wallace & Priestley, 2017). In response to this claim, Ashley gave an example of her internal debate about the former History curriculum just before CfE was introduced.

> When I first started, we had History Christianity. I thought: 'Oh, this is awful and we can't be teaching this to kids. No wonder History numbers are terrible. But I have been here for only a month so I can't say this aloud.' And then all the Benchmarks came out and it was absolute luck. They did not match so we had to change. I brought in a new course. Benchmarks have allowed to change happen, which has been good for updating things. (Ashley – internal conversation interview)

Nevertheless, as Ball (2003) indicates, this change did not always lead to making a success of themselves; in contrast, it may result in internal conflicts and resistance as evidenced in other cases (e.g., Tim) as discussed previously. What Ashley's case might present is that perceived need and motivation to create a new course are essential elements to make change happen. Sustaining that motivation had proven to be difficult. She felt demotivated during the last interview, due to several reasons, not least because of a lack of praise and support from her faculty, which I shall turn to discuss in the next section.

7.2.5. 'How would I know if I am a good enough teacher?'

Joanne's quotation is linked to Stenhouse's (1975) idea that curriculum development and teacher development should be considered and enhanced in tandem. Hence, the teachers conducted their internal debates about curriculum making regarding the ways they reflected on their teacher self. Re-living, prioritising and imaginary conversations will be the focal areas, where I present some examples of the teachers' internal conversations in this section.

Re-living

There was a tendency to re-live the cases, where the teachers felt there was more to be done but they were not able to do, or where the teachers felt that things had been a concern for some time. As pointed out earlier, teaching in an area where the teachers did not hold the expertise

stimulated their internal conversations. For example, Heather, a Design and Technology teacher, talked about a Health and Wellbeing lesson that she was expected to teach.

> I re-live health and wellbeing lesson every week. It is the worst part of the week. I think this week was a good week because I wrote the lesson. If it is not like how I teach, it just seems clunky and I don't think I am motivated so kids are not motivated. It is falling apart. Personally, I don't think it works because the links are broken. It is never a smooth lesson. I get miffed at myself because I really should prepare my own lesson for it. I know that it will be better but there is a course that the school wants to do. It is easier to just to follow it. You could create your own and then I am giving myself lots of extra work. If I don't do it, I feel guilty and I should have done it. Oh, dilemma. (Heather – internal conversation interview)

In the mediation of the school expectation and her negative experience, such a dilemma prompted more internal debates on what to prioritise at that time, so Heather concluded that creating that lesson, even though it felt frustrating to re-live this, was not on her priority list. Joanne also relived a lesson to consider the quality of her teachings.

> I might think back through the way that I taught something and what happened and whether it was successful. For example, within the third-year course, we have looked at fracking. One year, we had a big event in the hall and we had half of the class debating for and debating against. They made a really great event and lesson. I did the same thing next year. They were not as confident in public speaking and did not take the topic, and it was not also in the news as much that year. […] I was really reliving the thoughts which have an impact on how I deliver the lessons. (Joanne – internal conversation interview)

Re-living was not always considered a helpful thing, especially if the focus was on the things with which a person is dissatisfied. Sometimes, the teachers did not even find the time to relive, as Karen said, *'It is like go, go, go.'*

Prioritising

One of the repeated concerns was the lack of praise and intolerance of mistakes, especially in the context of Scotland. This, in turn, played a role in what the teachers thought should be prioritised, mediated by personal, structural and cultural factors (e.g., modes of reflexivity, accountability pressures, and performativity culture). Ashley, for example, stated one key reason why curriculum

making was not a priority for her any longer: a lack of praise for creating good lessons and enacting a good curriculum.

> You can be teaching a course which is printed in 1992 or you can make a new course every year to fit the needs of your kids and you are still getting paid the same. My Head has no idea how much effort I put into curriculum development. Absolutely none. This is demotivating. They do not even value it enough. (Ashley – internal conversation interview)

> Results day in August, my favourite days when the Insight data comes out. They are insane, amazing. No one ever comes to say well done. If you are doing a working group [extra-curricular whole-school activities], you are told. (Ashley – first interview)

In addition to these, she also believed that there was no need to change her practice as 'her' exam results showed a high success rate (70%). As illustrated in her ego-network, having a link with SQA would be a reason to consider a change in her practice, as she prioritised the exam results as a prominent indicator of her success. A similar issue, also raised by Erica, as shown previously, was that curriculum making was not praised in job interviews. These insights may indicate the importance of extrinsic motivation for some teachers, as a stimulus to curriculum making practices. Moreover, the autonomous mode of reflexivity may explain why these incentives were prioritised in curriculum making practices (see Chapter 8).

Imaginary conversations

The people with whom the teachers had imaginary conversations included inspectors, senior leadership team and other staff members. Kyla highlighted the importance of seeking other perspectives in her curriculum making through such imaginary conversations.

> It is really bizarre because sometimes I find myself doing it [imaginary conversation]. It is sort of processing for me trying to consider other perspectives. I think because it is really easy particularly planning for the curriculum to become very selfish and think this is what I would like to do and stop forgetting it is thirty other people with you in the classroom. (Kyla – internal conversation interview)

The existence of Insight data also initiated some internal debates. For example, Joanne was asking '*Who did I do a particularly good job of teaching?*' and '*Who didn't do that well and was there anything at all I could have personally done to impact on their attainment?*' Such questions then stimulated some internal debates on to make a decision:

The only main area we are unhappy with this year is the Advanced Higher attainment which is lower than elsewhere and we know this is due to some students who stop working when they are given unconditional university offers and they fail the exam due to putting in no effort. So now we need to consider how we can attempt to make these students keep working, or whether we need to tell them they are not allowed to take the course if they stop working because if they didn't sit the exam then our data would appear far more favourable. (Joanne – reflective diary)

It is important to underline the impact that Insight data has, both on how the teachers' internal conversations were shaped and how they projected their actions accordingly. As discussed earlier, in Ashley's case, this emerged as one of the key drivers of curriculum making practices in Scotland.

7.2.6. Other mental activities

The aforementioned activities were familiar to all of the teachers when having internal conversations about curriculum making. Ashley perceived them as stages of curriculum making. At the end of the interviews, I asked them whether there were any other mental activities associated with internal conversations about curriculum making. Most of them thought these ten mental activities captured their internal conversations about curriculum making well. However, Kyla, for example, suggested that she was 'puzzling out', especially when designing learning materials to fulfil the whole range of needs of her students, while making them engaging and challenging. Similarly, Heather described how she was 'having lots of doors open', when thinking about curriculum and how quickly she just switched and opened new ones in her head through her internal dialogues. Further, Joanne asked some agentic questions related to curriculum in her head:

How much influence can I have? Who has got the power to take the curriculum in a different direction? Maybe I have that kind of internal conversations. For example, would it be appropriate for me to make suggestions … That comes to a lot in my internal conversations (Joanne – internal conversation interview)

This aspect of agency is indeed fundamental to address in this study to explain how teachers, as reflexive agents, navigate their way through curriculum making practices in the contexts where different structural and cultural properties emerge and interact.

Conclusion

In this chapter, I examined a range of the teachers' concerns and internal conversations regarding curriculum making. Three broad themes about the teachers' concerns (pedagogical ideals and/or realities; lack of support; the new curriculum for Wales) were explained in depth to illustrate how personal, structural and cultural factors may interact in the mediation of curriculum making through a range of internal conversations. This chapter built on the previous chapter about the teachers' external conversations by giving some rich insights into why the teachers formed certain connections or why some of them were more influential, for example. One of the core aims of this chapter was to illustrate how the teachers took different stances towards similar concerns in their social contexts and projected their actions differently to achieve a satisfactory and sustainable *modus vivendi.* The chapter also underscores the importance of looking at the interplay between internal and external conversations as their complementary or contradictory nature shapes how teachers navigate their ways through the curriculum. By drawing from Chapters 6 and 7, I shall now examine the interplay between these conversations to understand better how the teachers mediated their social and relational curriculum making practices.

Chapter 8. The interplay between internal and external conversations

Chapter 8 Outline

This chapter provides a nuanced analysis of how different patterns of the interplay between internal and external conversations may be observed in people practising different modes of reflexivity, in the context of curriculum making. In the first part, I shall bring together personal, structural and cultural emergent properties that were signposted throughout and derived from the network and reflexivity analysis as a basis to understand the interplay. In the following section, which is the core of this chapter, I shall examine the four modes of reflexivity by drawing upon four vignettes; the curriculum making practices of Rosy, Erica, Kyla, and Tim, to illustrate distinctive features and social practices pertaining to each mode. Building upon the previous chapters, thereby, I shall address the fifth and sixth research questions:

> *RQ5: What are the personal, structural and cultural properties that emerge in curriculum making practices, in regards to the internal and external conversations?*

> *RQ6: In what ways does the mode of reflexivity play a role in the interplay between internal and external conversations about curriculum making?*

This chapter brings together the teachers' internal and external conversations to offer a conceptual and analytical framework, which is adapted from Chalari's (2007, 2017) work on a mediation theory. The discussion here will establish a foundation on which to identify the underlying generative mechanisms of curriculum making presented in Chapter 9.

8.1. Emergent Properties

This study is predicated upon the understanding of the social world as an open system (see Chapter 4). People's agentic properties interact with the social structures and culture in which they are embedded, and which exhibit their own properties (Archer, 1995). All these properties are emergent, signifying that they embody their causal powers, but are contingent upon the activation of these powers (Edwards, O'Mahoney, & Vincent, 2014). This section presents a collation of the previously signposted personal, structural and cultural emergent properties, to illustrate the development of the analytical framework to examine curriculum making as relational phenomenon. A summary of these properties identified in my research is presented in Table 8.1 below.

Table 8.1. Emergent properties in curriculum making

Emergent Properties	Themes from empirical data
Personal emergent properties (PEPs)	Reflexivity; relationality; a sense of a self-motivated formal curriculum-related role; concerns, interests, beliefs and priorities about curriculum; curriculum orientations; discourse on curriculum and education; personal commitment, motivation and values.
Structural emergent properties (SEPs)[42]	Curriculum reform demands; organization of the subject departments or faculties, and schools; accountability practices and performativity pressures; material availability; structural features of the teachers' networks (e.g., strength, density); meso site support.
Cultural emergent properties (CEPs)	Instrumental and affective attachments to the subjects; cultural features and dynamics of the teachers' networks (e.g., diversity); organizational culture; ideas about curriculum and curriculum reform.

8.1.1. Personal Emergent Properties

I shall present the teachers' personal emergent properties (PEPs) by drawing upon reflexivity and network analysis. These properties enable or constrain the teachers' social actions in different ways, which I shall examine through the vignettes. To begin with reflexivity and relationality, these properties refer to the relations between relationships to underline individuals' embeddedness in the complex web of interactions. Moreover, a sense of their self-motivated curriculum-related roles; concerns, interests, beliefs and priorities about curriculum; curriculum orientations; discourse on curriculum and education; and personal commitment, motivation and values are amongst the PEPs identified in my research.

The nature of these properties is dynamic, and not all of them are activated at all times by individuals (Archer, 1995). This would depend on the mediation of the structural emergent properties (SEPs) and cultural emergent properties (CEPs). Hence, there is a constant interaction amongst them in relation to the individual's internal and external conversations. I have given some examples in Chapters 6 and 7 by explaining the properties and how the teachers acted in relation to these (e.g., Tim's research related external conversations following his interest in academic articles). These properties are of importance to achieve a *modus vivendi* in a professional sense

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[42] This section includes practices (i.e., things that happen) and structures alongside properties to capture all emergent themes pertaining to the structural factors outlined throughout the research.

which is satisfactory and sustainable for teachers. Reflexivity and relationality, more specifically, the modes of reflexivity and relational goods and evils, amongst all the others, appeared to be the most powerful generative mechanisms, in the sense that they had the most explanatory power to understand why the teachers acted in certain ways. Each mode of reflexivity will be examined here, but an overall discussion on the modes of reflexivity and relational goods and evils as generative mechanisms will be explained in Chapter 9.

8.1.2. Structural Emergent Properties

This section captures both institutional and relational structures as a whole, which constitute SEPs (Elder-Vass, 2008). Archer (1995) posited that these properties are defined in a material sense and include institutional structures, social systems, roles and distributions. Some of these properties were imposed upon the teachers (e.g., curriculum reform demands) to guide their practices, whereas some of them (e.g., establishing strong ties) were created by the teachers themselves through social interactions. There is a linkage between these properties with the individual (Elder-Vass, 2008). For example, the organization of subject departments in the school may be complemented with a dense and strong network of individuals to establish timely needed mission-aligned practices, which was the case for Rosy. This study showed that structural emergent properties included curriculum reform demands; organization of the subject departments/faculties and schools; accountability practices and performativity pressures; material availability; and structural features of the teachers' networks and meso curriculum support.

The SEPs are experienced differently by individuals in different contexts. While some of them enable, others may constrain teachers' curriculum making practices. For example, curriculum reform demands may encourage teachers to engage with other stakeholders outside of their school, while other teachers might experience this as a constraint, in a context where there is a lack of understanding and support related to the demands of the reform. Thus, these properties interact and influence how teachers generate and mediate internal and external conversations, for example, in the ways in which teachers deliberate about their concerns or their interactions with other alters in their networks. Synthesis of some of these properties will be discussed as generative mechanisms, namely, national and organizational context, in Chapter 9.

8.1.3. Cultural Emergent Properties

The properties identified here are different from simple personal beliefs. Instead, they are collective, and escape their makers in ways that highlight the relational and social dimensions of

curriculum making practices. Similar to the personal and structural emergent properties, the cultural emergent properties (CEPs) enable or constrain teacher mediation of curriculum making. The teachers' internal and external conversations evidenced a range of ideational and also relational properties, such as: instrumental and affective attachments to the subjects; cultural features and dynamics of the teachers' networks (e.g., diversity); organizational culture; and ideas about curriculum and curriculum reform.

Identification of these properties is an essential step to understand how teachers mediate curriculum making practices in relation to the complex interplay between internal and external conversations. As Donati and Archer (2015) state, 'mediation is always required, otherwise, both structural and cultural properties are held to operate mysteriously but nevertheless as hydraulic forces' (p. 170). The following analytical and conceptual framework (Figure 8.1.), which is named the *curriculum mediation framework*, was produced to illustrate a way of exploring teachers' curriculum making practices in relation to internal and external conversations (see Chapter 4 and Appendix 1 for an explanation of the concepts in the diagram).

Potentiality of Morphostasis/Morphogenesis

Dissatisfaction/Satisfaction

Conflict/Indifference/Complementary
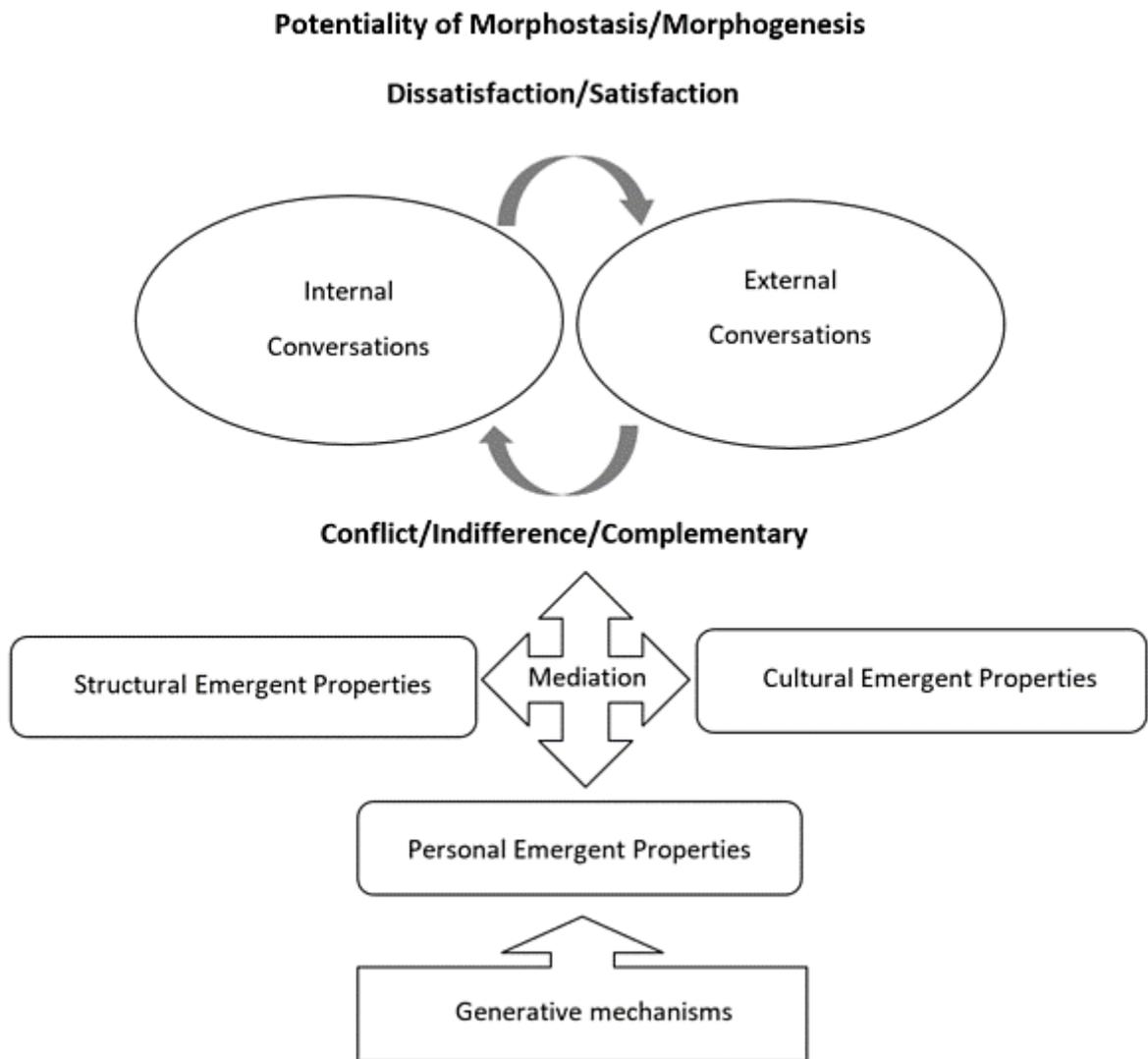
Figure 8.1. A curriculum mediation framework – an analytical and conceptual framework to examine the mediation of curriculum making in relation to internal and external conversations

As the diagram shows, the emergent properties are mediated by the teacher through the interplay between internal and external conversations. Generative mechanisms that are unseen and unobservable at the empirical level underlie this process. The argument is that distinctive patterns of decisions and stances towards projecting actions can be observed in teachers' curriculum making practices when they exercise different modalities. I shall now present possible ways that the mediation can be experienced in different modalities, based on the empirical data and drawing upon Chalari's work (2017).

8.2. Modes of reflexivity and curriculum making

This section illustrates how different modes of reflexivity engender a range of curriculum making practices and how the teachers take different stances towards the structural and cultural circumstances. For this purpose, I shall use the curriculum mediation framework to explain what each domain includes and how they contribute to different decisions and actions taken by the teachers. To achieve this, I shall present a vignette of one teacher who exhibited strong features of a particular mode of reflexivity at the time that the research took place. It is important to re-emphasize that we all practise different modes of reflexivity at different times and in different contexts, although one dominant mode at any particular time may effectively shape how we navigate our way (Archer, 2012). Moreover, our social interactions may develop or trigger certain kinds of modes as well. Hence, these modes should not be seen as fixed and static. Instead, they are dynamic personal emergent properties.

Internal conversations will be explored initially, as they are depicted as primary processes which mediate the effects of structure upon agency (Archer, 2003) in connection with external conversations. A range of examples of the interplay between these conversations will then be offered, drawing from the mediation of the personal, structural and cultural emergent properties that I shall reference using their acronyms (PEP, SEP, and CEP, respectively). I have attempted to identify a curriculum making pattern for each modality to synthesize a summary of associated orientations and practices. This section will include mostly the teachers' own words, and some of the key themes and features regarding the mode of reflexivity will also be described.

8.2.1. Communicative reflexivity – curriculum making as dialogic-consensual practice

To recapitulate some insights regarding communicative reflexivity (see Chapter 3), internal conversations of people who exercise communicative reflexivity require completion and affirmation through external conversations before they take action (Archer, 2012). When practising communicative reflexivity, concerns tend to be resolved interpersonally, which indicates a high influence of alters (dialogical partners in Archer's (2003) words) who are usually similar and familiar.

In this study, none of the participants exhibited strong features of communicative reflexivity as their only dominant mode at that time and in their contexts. Rosy, however, had illustrated some elements of communicative reflexivity in some cases while she was overseeing the school's curriculum making activities, with some features of other modalities at times. The contribution of using the ICONI was to indicate that her scores for the four categories were 4 and above (see

Chapter 5), which meant that she was potentially exercising different modalities at that time, having communicative and meta-reflexivity as equally primary influences, but with shifting modes of reflexivity. This section demonstrates a range of social and relational practices, which I term *dialogic-consensual practice*[43] to reflect the nature and dynamics of micro curriculum making practices associated with communicative reflexivity.

As a highly experienced Biology teacher for 19 years with several leadership roles, Rosy held the responsibility of being a curriculum lead in her school. Besides this role, she was still teaching as well as being part of the Senior Leadership Team (PEPs). This self-motivated curriculum role (PEP), which intensified her internal and external conversations, was one of the milestones in her career, which shaped how she perceived and conceptualized curriculum. This indicates the importance of creating potential relational states (e.g., the curriculum advisor role) which are supported by ongoing relational events (e.g., local curriculum sense-making events) (Borgatti, 2021) in the context of curriculum making. Rosy commented that she had a more holistic idea of the curriculum after the new curriculum reform, by emphasizing the importance and place of pedagogy and her big ideas of how and why certain things are taught in schools, as well as the structural elements, such as timetabling and school infrastructure (PEPs+CEPs). This change was reflected in her internal conversations, which were devoted to the whole school curriculum making and curriculum provision, especially timetabling. At that stage, these conversations were not individual exercises, as in the autonomous mode of reflexivity. Instead, these internal deliberations needed to be completed and confirmed by external conversations in a dialogic way to lead her courses of action and reach consensus. Her external conversations were mainly intended to seek reassurance, resolutions and confirmations relating to her personal concerns (SEP+CEP). These curriculum making patterns are captured as dialogic-consensual practice. As explored in Chapter 7, her concerns included keeping staff informed about the curriculum reform, and also happy and content about timetabling, which required intensive and frequent dialogues with people inside and outside of the school to lead her actions.

> During the week I met with the Head to discuss the possible options for year 12 next year. Some difficult decisions need to be made regarding what options will run. Some options may not be offered in the consortium due to a lack of resources and funding. The Head contacted the Council to inform of this and we are waiting for a response. Until decisions

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[43] *I notice that she uses 'we' as many times as 'I' when explaining curriculum making practices. I have tried to bring the conversation back to her curriculum making practices a few times, but I now realize that actually this is a fruitful thing to demonstrate how personal and contextual factors may influence the relationality of curriculum making.* (Diary, 14.02.2019)

are made, I cannot move any further with the creating the option blocks – this is frustrating (Rosy – reflective diary)

Such hierarchical system and resource-related constraints (SEPs) were not the only factors that affected her practice; conversations with staff who held different requests, expectations and needs (SEP+CEP) were also something Rosy needed to consider to proceed with the curriculum work. Hence, in a way, a combination of the social environment and her role arguably activated some elements of communicative reflexivity. Some of her PEPs also contributed to this activation because, as a person who did not like confrontations, she tried to accommodate everybody's needs.

> Once they will get the timetable, I will have lots of visitors at my door. I will consider every request and look at everything. I am not one of these people to say, 'Oh no, yeah I will try to sort it,' and just put it on one side. I will try to sort it every query and issue but if I can't solve it anyway, I will say my hands are tied and I have tried my best. (Rosy – internal conversation interview)

Rosy was deliberating on these issues and concerns and asking reassurance before she took any steps forward with the curriculum-related work. Relying on staff meetings to make sure that nothing was overlooked was particularly evident in her case, and, as Archer (2012) indicates, this as a common feature of this modality. Her reflective diary evidenced the intensity of her planning and clarification exercises for the staff meetings to explain the new curriculum (SEP) and lead the workshops. She also emphasized the collegial culture of her school (CEP), in a context where meso curriculum support was perceived to be informative and helpful (SEP):

> After training, I feel like, OK, you have all the information required now you go ahead and do. The change is so dramatic and different so it is a challenge to engage others and not to scare people and make sure that cross-curricular responsibilities are met. […] We don't have any hierarchy in the curriculum. I am the curriculum leader but how we all make good sense of curriculum will determine how we will be successful all together. (Rosy – first interview)

What mattered for Rosy at that time was to take the schools' curriculum forward together with the colleagues in her school, with whom she constructed a dense network with a high level of strength and trust (SEPs) and with a relatively high level of influence, especially on her practice (CEP). All staff members had access to new resources, such as *What Matters?* statements and links to the new sites about the new curriculum. This engagement was further facilitated through

curriculum workshops (SEP+PEP). Hence, there is a potential for Rosy to transform the pedagogical practices and structural features of the school. This illustrates how the organizational context and the relationality (relations between relationships) may trigger how teachers orient their actions and ultimately their dominant mode of reflexivity. There were ongoing discussions about curriculum making in the department (CEP), where the need to supplement internal conversations with external conversations intensified (Archer, 2007).

> I have a list of people for tomorrow['s] meetings that I will have a chat [with], as they will be affected by changes. You are trying to have conversations about potential issues which may arise and you know, as what they think. (Rosy – internal conversation interview)

The ways in which she handled the curriculum work, by engaging in interpersonal dialogues, getting confirmations to reach consensus, as well as drawing novel information from the local curriculum expert, made her feel both proud of and, at times, frustrated, with the work of the school. As Archer (2007) describes, within the communicative reflexive mode, there is a tendency to maintain relational goods, which are unpacked later (Section 9.2.1.), and, in their dense networks, even this requires some level of self-sacrifice for the ego. This was observed in Rosy's case, when she was spending evenings and weekends working on the curriculum work.

> Throughout the week I had many moments of feeling that this job was not for me. At times the pressure and responsibility was overwhelming. The time taking to plan the curriculum is huge and has impacted on my work-life balance (or lack of it). (Rosy – reflective diary)

This quote has some signs of a potential tendency towards the development of fractured reflexivity. I would argue that, in the case of imbalance between her concerns and the contextual characteristics within which she was situated, the interplay between her internal and external conversations would exacerbate her frustrations and potentially disable her from projecting her actions. She tried to align her subjective orientations with the objective circumstances by exercising communicative reflexivity (Archer, 2007), where she felt that the effort she was putting in was recognised and appreciated by her school. She gave an account of some of her internal deliberations on the reasons for doing this job, a way of self-interrogation often observed in the meta-reflexivity mode:

> Rosy: Do I want to continue this job? A regular one. Why on earth I am doing this? It is getting harder and harder. Your time is the most valuable resource. That's not only my position I am in – teaching is so consuming in many mays. You do have a break

but it is constantly there. I have felt like that for a long time. I kept going higher and higher. We will see.

I: What makes you stay in this job then?

Rosy: I think for me, I have worked so hard so I would be disappointed by myself and that is what it comes down to I can't have that. You keep going and going. It has been a conversation, should I go back to teaching Biology, should I do a different career path. You have your days then and think, 'Oh, I love this job,' and you need those days. (Rosy – internal conversation interview)

One of those days was an in-service training day she organized about the school's new curriculum plan, where a consensus was achieved and she felt a sense of pride. In turn, her confidence in the curriculum work was boosted. The reactions of staff reassured her work and provided the incentives that she needed (CEP). There was some evidence of cultural change in the school, in the ways in which the meetings were structured and the kinds of questions she both asked and was asked about curriculum (e.g., conceptual level inquiry instead of an audit approach) (CEP) and also some structural change in the departmental organization (SEP). For example, subject departments no longer existed, and they were reconfigured as Learning Development Teams in line with the new curriculum (SEP). These could be seen as potential structural and cultural morphogenesis in the context of curriculum making. Rosy's case also illustrates that teachers may activate different modalities in a time of rapid curriculum change, especially if they hold multiple formal roles that require different practices. The diagram below includes some of the elements in each domain to illustrate a possible way of a teacher's mediation of curriculum making with the effect of communicative reflexivity.

A potential of morphogenesis - Satisfaction

Internal Conversations

Internal conversations for planning to take the curriculum work forward and clarifying the steps for the self and her colleagues

Conclusive with external input, needs reassurance through dialogues, seeking for consensus

External Conversations

Seeking reassurance and confirmation before taking actions especially on curriculum provision

Satisfactory and complementary discussions to her concerns and priorities

Complementary

SEPs
A dense network (mostly with colleagues) with strong and trusted relationships, curriculum reform demands, timetabling, 6th form curriculum, meso curriculum support

Mediation

CEPs
Highly influential network, curriculum related pedagogical and technical conversations, collegial and non-hierarchical school organization

PEPs
Self-motivated curriculum lead role, leadership qualities, holistic understanding of curriculum, reflexivity and relationality

Generative mechanisms
Exercising communicative reflexivity
National and organizational context – The new curriculum reform demands
Relational goods – organizational and meso curriculum support

Figure 8.2. A diagram to show how the mediation operated in combination with communicative reflexivity in Rosy's case

8.2.2. Autonomous reflexivity – curriculum making as strategic-instrumental practice

Practising autonomous reflexivity manifests in self-sufficient internal deliberations that are mainly used for checking the quality of the teachers' work by benchmarking to both their personal standards, and also the public standards to which they would like to conform (Archer, 2007). Hence, these deliberations are mostly for instrumental purposes and, in doing so, some personal

traits can emerge, such as self-organization and self-confidence (Archer, 2012). Archer (2012) calls autonomous reflexives 'the new spirit of social enterprise', highlighting the existence of 'situational logic of opportunity' as one of the distinctive features in this modality (p. 166). I term the associated practices as *strategic-instrumental practice*, to capture the essence of the emerging curriculum practices. Erica's case strongly illustrates most of these features, although Ashley's, Heather's and Karen's narratives also had some marks of autonomous reflexivity.

Erica, a History teacher for 11 years, demonstrated, subjectively, a satisfactory balance between her internal and external conversations about curriculum making, partly because of her adopting a very strategic and mostly instrumental approach to achieve her aims (PEPs). These are some of the prominent features of the autonomous mode of reflexivity (Archer, 2007). By practising this modality, she was able to rationalize her social context and expectations on her as a teacher, and was ready to take actions accordingly (PEPs). Her self-sufficient and self-contained internal conversations were complemented by external conversations, especially when there was a need for expert advice to enhance her practice (CEP). This means that, although she was self-confident on her mental judgements (PEP), in the context of structural changes (e.g., SQA arrangements) or when the stakes were perceived to be high, for example at Senior Level Classes, she tried to adapt to the new circumstances by seeking expert advice from people with SQA links (SEPs). In turn, these external conversations clarified some of her internal conversations and provided instances to enhance her performative achievements. As a result, there was a balance between her concerns and what is expected from her as a teacher. This may lead to the reproduction of existing structure and culture, or in Archer's words, there is a potential for morphostasis in her context. This contrasts with what Donati and Archer (2015) propose, that an autonomous reflexive mode would result in morphogenesis, a transformation of structure, culture and agency (see Chapter 3). I argue that this contradictory finding can be related to the multifaceted and dynamic nature of the forms of reflexivity and descriptions of how each mode brings about social change. In fact, Archer (2012) argues that there is no homogeneity in autonomous reflexivity, which could also explain this finding. Nevertheless, as I have been arguing throughout, there is a need for a more nuanced, relational and dynamic way of contextualising modes of reflexivity in curriculum making, which will be examined further in the next chapter.

Building on this brief description of Erica's case, I shall leave some space to present her own words and my observations, which helped to identify her dominant modality. Her self-confidence and self-awareness (PEPs) were evidenced throughout the data: '*I know what I need to do'; 'I'm logical in how I plan and prioritise'; 'I feel I'm OK with that for now'.* These statements accompanied her

aspiration to be the best teacher she could be, as subjectively defined by her (PEPs). She took her own responsibility in achieving this (PEP), signalling the autonomous mode:

> I want the kids to have the best opportunity and that's on me. They only get as good a lesson as I am prepared to deliver. […] The quality depends on the degree of the work you put in. I want to be good, proud of the work I do. (Erica – internal conversation interview)

It appears from this example that this aspiration regarding the best opportunity needed to be slightly mediated when faced with performativity pressures (SEP).

> I: So to what extent, or in what ways the way you make curriculum differs in junior level [BGE] and the senior level?
>
> Erica: In terms of the activities I put in, it is hugely different. Differentiation happens throughout but more so in junior level because it is easy to differentiate there. The activities in junior school can be more active because they don't need to take anything away. There is no exam at the end. They don't need to go back. They can have things in the jotter but you can provoke the memories by asking little reminders. It can all be active learning because they do not need to have lots of notes. However, with senior level, they have to have notes if they are sitting Highers or Advanced Highers. We prepare them for the world of work which means they have to be prepared to leave this school. (Erica – internal conversation interview)

This extract is indicative of at least three things. First, such decisions on designing the content indicate practical utility as well as instrumental motivation, regarding Erica's orientation to project her actions (PEPs) – what Archer (2007) refers to as 'instrumental rationality' (p. 14). This pattern was identified elsewhere amongst other History teachers in Scotland, when making a decision on content selection, too (e.g., Smith, 2019). This is also associated with her interest-based (Archer, 2012) connections in her network (SEP+CEP). Second, as discussed previously about her interest in active learning, she utilized a policy language while keeping up with the performative pressures, thus using the CfE Benchmarks or marking scheme as part of curriculum practice, which potentially contradicted what active learning would entail. In a way, this reflects, what Archer (2012) manifests about the autonomous mode of being 'uncritically enthusiastic about governmental bureaucracy' (p. 188). Third, this extract can be read as a mark of a performance-orientated view of the curriculum (CEP) or, to put it differently, this approach to curriculum making, which resonates with the Social Efficiency ideology (Schiro, 2013), has a strong potential to prioritise

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product over process in education. The structure of the national exam system and accountability practices (SEPs) also played a role in this observation; Erica even felt confident in navigating her actions without much external input (PEP).

> You are making sure that the assessments cover the benchmarks then you would be able to make decisions on the level they [students] operate at and provide the evidence of the level they operate. This is difficult. You are trying also to prepare them for S4 so you are introducing the skills they need for Nats [National Qualifications] […] For senior school if I'm honest, I just look at the SQA arrangements and marking scheme in my course development. Higher course was changed from one paper to back to two papers this year. They have added 2 extra marks. My concern is if I am doing it right. I have sought clarification and I am told that I am doing right, but we will see in August. This is like every year with SQA (Erica – internal conversation interview)

This shows that external conservations were a mechanism to check the standard of the work she was putting in. Moreover, S3 curriculum being mediated to prepare for the National Qualifications in S4 was a common theme, as outlined in Chapter 7. In Erica's case, we see an uncritical way of accepting this situation to ultimately achieve performative goals. During my second visit, I had observed[44] a way of translating this perspective into teaching practice:

> She [Erica] posed some questions at the beginning of the class, such as 'Can you tell me three things about Rosa Parks?' Then, she explained why they needed to be able to write three things – because of the Benchmarks. She also said that these could go to their progress report that they were able to do these. (My observation notes)

While these may imply a narrow approach to curriculum practice, Erica came across as a passionate, energetic and confident teacher (evidenced in her narratives, her engagement with extra-curricular activities and her formal role). A common theme identified in her internal and external conversations was that she was seeking improvement that she took her individual responsibility for and often pushed her comfort zone (PEP). These features are also associated

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[44] *After reading Finlay's (2003) chapter, I am now thinking and writing retrospectively. The researcher 'I' was fascinated with this observation while 'I' with curriculum making passion was concerned and thought how such practices would narrow students' experiences. Mathematics teacher 'I' considered how similar practices disempower students to access 'real' value of education and making mathematics alien to real life. 'I' as an outsider to Scottish context questioned whether this happens in other contexts or not, and if not, why? What makes one teacher employ this practice within similar circumstances and others not?* (Diary, 01.11.2018)

with autonomous reflexivity (Archer, 2012). For example, she attempted to take a strategic action by trying to minimise the constraining power of her context through external conversations, particularly with people who could complement her actions in this respect. Hence, her network was rendered with a high degree of average trust (8.37 out of 10) and strength (7.37 out of 10), solely with people who had History background or links with the SQA, due to her taking a strategic path to address her concerns (SEPs+CEPs). I explained previously that her ultimate concerns were related to assessment, planning and time management, and these were reflected in the content of the conversations in her network, especially when faced with structural constraints. For example, she came up with ways to overcome the budgetary limitations by purchasing the resources herself, a way of illustrating how passionate and committed she was; or seizing any potential opportunity to obtain materials from her network (e.g., 2F – an academic colleague known through social media); or enterprising solutions, where she organized a bake sale to raise money – a sign of autonomous reflexivity (Archer, 2012)).

As mentioned earlier, Archer (2012) argues that there is no homogenous way of practising autonomous reflexivity. This argument is reinforced in this study, as Erica's network was highly influential (CEP) in curriculum making as opposed to her independently relying on her own mental judgements, following a common feature of autonomous reflexivity. The diagram below illustrates an example of the mediatory role of the interplay between internal and external conversations, drawing from exercising autonomous reflexivity, with other underlying generative mechanisms, in teachers' curriculum making practices.

A potentiality of morphostasis - Satisfaction

Internal Conversations

Internal conversations for effective quality control to meet her standards and school, national standards and expectations

Purposefully conclusive, instrumental, strategic, independent internal deliberations about assessment, qualifications, planning, time management, her new role

External Conversations

Seeking clarification when expertise needed and subject specific and assessment related conversations

Satisfactory and complementary discussions to her concerns, interests, priorities

Indifference/Complementary

SEPs
Strong and trusted relationships, budget and material related issues, accountability practices and performativity culture

Mediation

CEPs
Subject background similarity, Assessment focused ideas, Highly influential network

PEPs
Self-motivated role as PT of best practice, passionate and self-confident, assessment oriented practice, reflexivity and relationality

Generative mechanisms
Exercising autonomous reflexivity
Organizational context – departmental boundaries
Performativity culture

Figure 8.3. A diagram to show how the mediation operated in a combination with autonomous reflexivity in Erica's case

8.2.3. Meta-reflexivity – curriculum making as critical-reflective practice

Meta-reflexivity is a mode of reflexivity exercised by every normal person (Archer, 2003), therefore, all teachers in this study exhibited some of the distinctive features of this modality to a certain extent. Amongst all, Kyla's narrative had the strongest elements to illustrate how the dominance of this modality may manifest in the mediation of curriculum making in distinctive ways. The essence of this modality in a broad sense is being critically reflective about concerns,

projecting actions and constantly posing and answering questions about these (Archer, 2007). This means that people who practise this modality tend to self-interrogate and hold internal deliberations for self-monitoring. Archer (2012) suggests that self-monitoring in meta-reflexive mode inclines to be value-oriented and critical on self and the context, unlike task-oriented deliberations with the autonomous mode of reflexivity. This criticality often brings contextual unsettlement for people who practise meta-reflexivity as their dominant mode, which was the case for Kyla, who decided to pursue another career. I term these patterns as *critical-reflective practice* to capture these features.

Kyla was an English teacher with 11 years of experience. Her ultimate concern to nurture her curriculum practice was identified as a need for a sense of community (PEP) – a common feature in the meta-reflexive mode (Archer, 2007). This was evidenced in the ways that the network is structured (SEP) and her practices in the school. She had a sparse network with three unconnected components that addressed certain parts of her concerns (SEP); colleagues, family/friends and people from the Creativity Summer School. For example, alters from the summer school were highly influential her curriculum making practices (even communicated less frequently) (CEP) as she felt that she was connected with people who were on the same 'wavelength' (Archer, 2003, p. 278). This wavelength could be expressed as an orientation towards creative and critical pedagogies in her practice. These dimensions were highlighted throughout. In Kyla's words, '*the ultimate aim of teaching English is to access information and literature and be sensible and critical about what they read, learn to watch out for pitfalls, particularly in social media, and to foster the love of reading and creativity*'. The internalisation of the external conversations with these alters consolidated her ideals, but at the same, due to the difficulty in navigating in a performative culture (SEP), which was deemed to be incompatible with her interests in curriculum, her decision to leave the profession was reinforced (PEP+CEP).

> It can be so difficult to balance the needs/demands/expectations of management, council and government while still trying to build an exciting and meaningful curriculum. When we try to explore new (to us) methodologies, there is a real sense of 'but we that get results and how can we evidence learning when it's so creative'. (Kyla – reflective diary)

The challenge of mediating her educational ideals (PEP) and such structural constraints proved to be difficult, especially in a time of transition from teaching to become a humanist celebrant. She was aware of her circumstances and she found herself working even harder because she said she felt guilty. In addition to formal curriculum making activities, she continued to organize drop-in

sessions and lunch clubs every day (e.g., Creative writing, Exam support study) to promote equity in the way that she was able to do, and also to create a sense of community for herself (PEPs):

> You are providing something free maybe they would not get access. The kids know that you spend your own time so they appreciate, not always though. S6s have attitude problems. These drop-ins create my own community. I brought the culture which developed in [the] Highlands with me to here. (Kyla – first interview)

What she attempted to do was transform the culture, signalling elements of the Social Reconstructionist ideology (Schiro, 2013); this is a sign of morphogenesis in her practice, which in turn could enhance her curriculum making practice in some ways. This is similar to what Archer (2012) states about this modality: searching for a way to serve one's ideal is one of the characteristics of meta-reflexivity. Archer also identifies that people exercising meta-reflexivity continuously evaluate whether their social context enables them to nurture their practices or themselves. This could be seen in the way in which Kyla was trying to mediate her PEPs with the SEPs she confronted through the interplay between her internal and external conversations.

> The curriculum is so exam driven. There is a real divide between BGE and senior levels. […] Even in the junior years, which is a quite grim way of thinking, 'Come in first-years, here is a fun activity and now here is the exam prep'. There is not that complete flexibility. You just try to make it work within your practice fit within the overview of the department, and the school, and the council … You feel like one little ant in a huge nest. (Kyla – first interview)

She was self-aware of the constraints of her context and she protested about the imposition of the workload (PEPs) that was a consequence of the accountability practices and performance indicators[45] (SEPs). Some of her reciprocal and collegial relationships in the faculty were partly sufficient (CEP) to address her concerns but this was limited due to the school management related issues.

> Just been thinking about sharing resources outwith immediate colleagues: I have known teachers who have been extremely possessive of the resources they make, but generally folk are very good about helping each other out. This is the first year we've offered Higher Drama at our school and it's been really tricky for the two of us delivering it to get time

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[45] *It is disheartening to see how systemic pressures make good teachers to think about leaving the profession. Kyla's attempt to create her own community through her self-motivated initiations didn't seem to help with her satisfaction in her practice.* (Diary, 27.11.2018)

together. Making up materials independently can be daunting so it's been great having a 'buddy' throughout the process. We've also joined a closed Facebook group of Scottish Drama teachers and that's a brilliant community for having questions answered and sharing ideas as well as resources. For me, there's such a sense of community in helping each other out, particularly while the exams are still being revised. (Kyla – reflective diary)

There are times it feels like if there is a vision, the rest of us don't know what it really is. You're just lurching along term to term. There are times staff feel undervalued. People run down a little scunnered with the profession. (Kyla – internal conversation interview)

The multiplexity of her ties (e.g., colleagues being friends) and the emotional support available in the network, also demonstrated some common characteristics of meta-reflexivity (Archer, 2003). As noted, at the time of this study, she was studying to become a humanist celebrant, which could be seen as a major job transition to serve her value-based ideals and help people. Archer (2003) notes that people who practise meta-reflexivity tend to re-design their future projects, for example, by moving to a different vocation, to achieve a sustainable and satisfactory *modus vivendi* when there is an incongruence between their ideals and their context. Other teachers faced with the same structural constraints may act differently, and the mode of reflexivity is a powerful tool to understand potential reasons for this.

Overall, Kyla's case represents a situation when a highly reflexive and committed teacher (evidenced in her interest in professional development and voluntary activities in the school), with a network with strong, trusted and diverse support available, can become demotivated to initiate projects. Thus, curriculum making as critical-reflective practice may be inhibited due to incompatibility of the interplay between strong accountability practices, a lack of sense of community and personal ideals. By leaving the profession, she believed she protected her mental wellbeing in a way and redesigned her ideals to nurture a better self (Archer, 2012). Figure 8.4. below demonstrates some features of different properties which are mediated in relation to the interplay between internal and external conversations, with particular attention to meta-reflexivity.

Dissatisfaction – a potential of morphogenesis

Internal Conversations

Internal conversations for self-monitoring and interrogating about her own motivation, the new Drama curriculum, the tensions between her ideals and the demands of the school and government

Detailed, long, idealistic internal deliberations about creativity in curriculum, students' needs, accountability pressures

External Conversations

Seeking expertise and emotional support from three unconnected groups of people

Mostly satisfactory pedagogical and personal discussions complementary to her concerns and interests

Conflict/Complementary

SEPs
Sparse network with high level of trust and strength, hierarchical management of school, parental pressures on school, accountability practices and performativity pressures

Mediation

CEPs
Interest and value-based conversations, highly influential network with some like-minded people, reciprocal relations with some colleagues

PEPs
Idealistic and critical view of education, value-based orientation, reflexivity, relationality

Generative mechanisms
Exercising meta-reflexivity
National and organizational context –
Hierarchical relations
Performativity culture

Figure 8.4. A diagram showing how the mediation operated in a combination with meta-reflexivity in Kyla's case

8.2.4. Fractured reflexivity – curriculum making as dilemmatic practice

Exercising fractured reflexivity manifests in internal conversations, which tend to go round in circles, distress people, and often do not lead to purposeful actions (Archer, 2007). This is because either the matters are usually beyond people's control or they feel restricted by their social contexts. It might be also the case that some adverse situations disabled them to initiate courses of action for a sustainable and satisfactory *modus vivendi*. Tim's account is a strong example of that kind of displaced modality (Archer, 2012). His narrative had some traces of his former dominant meta-reflexivity mode until some of the perceived unrealistic expectations and

accountability pressures caused him stress and depression. [46] I express these patterns as *dilemmatic practice*, as he often found himself in a dilemmatic space (Fransson & Grannäs, 2013) that has both relational (e.g., how teachers' position themselves within their relations) and spatial (e.g., contextual) dimensions. Nevertheless, there were still some marks of meta-reflexivity in the feeling of unsettlement, criticality and still thinking and dreaming of an idealistic image of curriculum making as he perceived. However, instead of shaping the context to realize his ideals, as meta-reflexivity mode would initiate, his frustrations, feeling of isolation, negativity and tiredness disabled his efforts to take continual purposeful actions. He had illustrated extensive internal and external conversations and his reflective diary was one of the most detailed ones in the data gathered in this research.

Tim, a Chemistry teacher for 30 years, struggled to find satisfactory answers to his questions and dilemmas about curriculum policy/practice, especially after the advent of CfE, through his internal and external conversations. Different data sources depicted his inner conflicts, and the areas where he was unable to reconcile the dilemmas occurred at the individual level or in his context. These conflicting and inconclusive conversations led him to seek a variety of types of support from a range of channels, yet he often remained confused or unsatisfied.

Tim's interest in cognitive science and research about curriculum (PEPs) were the two major indicators of whom to seek support from for unresolved conflicts in his internal conversations, especially on bridging the gap between policy and practice, and, in return, some of these external conversations made him reflect on his educational philosophy and practice. People from different subject backgrounds, with different years of experience, holding different roles (e.g., colleagues and academics), and who had different attitudes towards CfE (SEPs + CEPs), were included in his network. From an external perspective, it can be argued that a range of ideas and perspectives about curriculum making were present in the network, which offered a rich potential to orient his actions. Although there was a degree of personal and cultural change through some of his conversations (characterised as thinking differently about his work as a teacher and extending his knowledge of research, for example), he produced the same internal conversations, including unresolved dilemmas. Thus, achieving a *modus vivendi* through internalisation of the external

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[46] *When he explained how he became ill, I felt that the interview dynamics have changed. After him having a 15 mins of monologue, I felt more present in relation to his experiences and feelings compared to our dialogues. I sympathised with him although I was in non-action at the moment. Also, I felt that my questions and wonderings were answered as this turning point could explain his negativity, tiredness, a lack of his motivation and engagement with curriculum making.* (Diary, 10.10.2018)

conversations was problematic in most cases. To a great extent, this was because his philosophical and pedagogical discussions were perceived as being inapplicable, due to the pressures of examination and accountability practices (SEPs), and, more importantly (as this helps us understand why people act differently even in the same context), as him exercising fractured modality (PEPs). Hence, there was a potential for morphostasis in his context, although there may still be some room for change in his professional repertoire. The following extract demonstrates an example of how different SEPs and CEPs were mediated by Tim's fractured modality at that time:

> We have an issue in preparing S4 for Assignments. A solution came up – do a form of assignment in S3. This then took hold. My internal discussion was, 'My current S3 do not have a good experience of Chemistry because we have shifted curricular structure but not been able to adapt materials for them yet, so I will create a simple S3 Assignment'. This meant I had to decide how to adapt and simplify the N4 AVU [Added Value Unit] for S3. […] I managed this task and started it last week with S3 … they struggled due to lack of instructional direction. But, 'Great – show the inspectors this example of good practice!' (EdSCo coming in soon.) This made me reflect, (1) It was an emergency need not a planned development. (2) It was guided and motivated by an SQA S4 assessment need, not an empirical need from the child's experience. (3) The first reaction of the department wasn't 'Oh that's useful!', it was 'great – let's show the inspectors.' (4) Another example of an ad hoc development and the Jenga Curriculum? (Tim – reflective diary)

Here Tim was problematizing the situation, signalling his displaced mode of meta-reflexivity, but still, he was unable to make a difference. Similar to this situation, there were some cases where he did not have the will to act (PEP), so he took a passive stance in his social context, although he had declined to do some other things at times (e.g., active learning).

> I don't feel ownership of a lot of things. I pass it on to the senior leadership. I leave the decision to them. There are times I am not happy with the decision but I don't care. In the past, I have always found you can be really upset for days, sometimes weeks over an instance, and you can become ill. I did become ill over things years ago. (Tim – internal conversation interview)

It is clear from this quotation that his stress was a signal for him to alter how he positioned himself and acted in his social environment (PEP). Moreover, a feeling of detachment was also evident in his case. The low density of the network (0.30 – indicating that 70% of the potential ties are

missing) and the low-level average degree of strength (4.47 out of 10) (SEPs) played a role in the interplay between conversations. How the timetable was arranged in the school was another important factor (SEP) to be considered here as he mentioned that they were all teaching at different times, so it was very rare for the department to hold conversations about curriculum (CEP). A potential explanation regarding this would be that he was able to access novel ideas (CEP) through alters outside of his school, but building a consensus in his head and practice was perceived to be difficult in a context where there was a lack of collegial conversations (CEP). Even in the conversations with a person with a strong tie, he remained dissatisfied.

> I am not sure what he (3D – Headteacher) does is gaming or career-making exercise ... We had a conversation about dealing with difficult issues in the classroom and he said, 'Just engage them more,' and I asked, 'Like what?' and he said, 'I don't know, just engage them'. That sounds like a catchphrase in a book and the conversation dies. (Tim – ego-network interview)

What happened then was that the internalisation of such an unsatisfactory conversation propelled his negativity further, because the imbalance stayed between his personal concerns and the expectations from him as a teacher, which lacked satisfactory justifications. It is also important to point out that 3D was one of the least trusted alters (3 out of 10) and some of the highly trusted alters were ranked as weak ties (3B-3C-3E-3F-3H). This suggests that a mixture of weak and strong ties and an overall high level of trust may not always result in effective and satisfactory curriculum making practices. As for influence of the alters (CEP), there were five alters with zero influence, and the overall degree of influence on his practice was one of the lowest ones (3.6 out of 10) in this research. The most influential alters were 3A (head of the faculty), mainly due to the hierarchical system in secondary schools (SEP), 3C (a Chemistry teacher from social media with an interest in cognitive science), and 3I (an academic in cognitive science) due to his interest in cognitive science (PEP) and the applicability of the ideas and practices that emerged from these connections. Thus, to reiterate, one of my main arguments is that an extensive and detailed examination of the relationality in the networks is, therefore, crucial to have a nuanced understanding of why teachers act in certain ways.

Tim's reflective diary exemplified some curriculum making activities that included the interplay between internal and external conversations. He was mainly dissatisfied, which only added to his frustration and feeling of tiredness. For example, he wrote in his reflective diary about a cluster meeting (none of the people here was added in his network), in which the course topic materials needed to be placed on the CfE levels:

When the exercise was complete, there was no explanation of what the next steps were or what the strategic purpose of the exercise was. As far as I know, the poster (about 12 feet) still resides in the hall. This is an example of curriculum auditing without focus. (Tim – reflective diary)

What we see in Tim's case is that a teacher, who is highly experienced and knowledgeable about research with a diverse and extensive network, can be disabled in curriculum making to a great extent in a context where there is a lack of curricular, pedagogical, research-related support and a lack of genuine space and tolerance for making mistakes. His practice illustrated elements of mainly Scholar Academic ideology (Schrio, 2013; Zeichner & Tabachnick, 1991), which resulted in certain teaching practices being focused on subject matter specialism, discourse around 'powerful knowledge' (Young & Muller, 2010), and also seeking research-informed teaching. In a succinct description, Tim's case is an example of curriculum making as dilemmatic practice which was engendered by an amalgamation of previous distressing life events, inconclusive and conflicting conversations, accountability pressures, and weak meso and micro curriculum support. It appeared that his mode of reflexivity was a powerful generative mechanism, as it was activated strongly in many cases. However, I do not attempt to suggest a simple and linear model of causality here. In other words, his mode of reflexivity was not the only explanation for Tim's curriculum making practices. Examining the mode of reflexivity alone would not be particularly helpful if we are to understand social practices, as social interactions contribute to developing a mode of reflexivity. Hence, examining relational goods and evils, as well as national and organizational context, is also important to better make sense of how modes of reflexivity might come into presence, develop and lead or suspend actions. The following diagram illustrates a possible way of a teacher's mediation of curriculum making, with special attention to fractured reflexivity.

Dissatisfaction – a potential of morphostasis

Internal Conversations

Internal conversations about school and national level curriculum policy/practice leading inconclusive deliberations

Inner conflicts, frustration, negativity, feeling of isolation and no will to act

External Conversations

Seeking support to resolve conflicts from a variety of expertise and a safe space to discuss

Satisfactory philosophical, intellectual and pedagogical discussions. Struggling to find the bridge to practice, lack of influence on practice

Conflict

SEPS

A sparse network with a mixture of strong and weak ties, high level of trust

Hierarchical school structure, accountability system, curriculum reform, a lack of resources

Mediation

CEPs

Diverse expertise and perspectives in the network, some complementary ideas to his interests and concerns
Conflicting and incompatible ideas to his practice

PEPs

Research oriented, highly experienced, critical, feeling unsatisfied and frustrated

Generative mechanisms

Exercising fractured reflexivity
A lack of meso curriculum support
Performativity culture

Figure 8.5. A diagram showing how the mediation may operate in a combination with fractured reflexivity in Tim's case

Conclusion

In this chapter, I have examined the teachers' internal and external conversations together to answer the two research questions. First, I have presented the personal, structural and cultural emergent properties in curriculum making that were derived from the reflexivity and network analysis. In the second part, by drawing upon these emergent properties and conversations, I have examined the mediatory role of the mode of reflexivity in the teachers' curriculum making practices. I discussed that the the teachers had diverse curriculum making practices which could

be explained by the interplay between internal and external conversations that were mediated through their personal, structural and cultural emergent properties. This whole process is generated by underlying mechanisms, including the mode of reflexivity. I suggest that it is empirically possible to identify diverse, but possibly interacting pieces of a complex puzzle, ways of curriculum making practices in the individuals exhibiting different dominant modes of reflexivity. I have defined them as follows:

1. Communicative reflexivity – curriculum making as dialogic-consensual practice
2. Autonomous reflexivity – curriculum making as strategic-instrumental practice
3. Meta-reflexivity – curriculum making as critical-reflective practice
4. Fractured reflexivity – curriculum making as dilemmatic practice

By drawing upon Archer's trilogy (2003, 2007, 2012), Chalari's mediation theory (2007), and the empirical data in this study, I have developed an analytical and conceptual framework and explained each of the above diverse ways of making the curriculum by using a curriculum mediation framework. I also argued that, even though people exercise the same modality, their social interactions and environment will trigger diverse ways of practising that mode of reflexivity (Archer, 2007). Thus, besides the mode of reflexivity, identifying and explaining other generative mechanisms is crucial in providing the possibility to understand how teachers' curriculum making is mediated in different contexts. The next chapter will consider this issue in depth, to offer discussions on the findings.

Chapter 9. The generative mechanisms that underlie teachers' curriculum making

Chapter 9 Outline

Critical realist social research aims to identify and explain generative mechanisms that create social events. In this chapter, I address the final research question and provide a discussion on the findings, while situating them within the related academic research.

> RQ7: What are the generative mechanisms that underlie secondary school teachers' curriculum making practices?

To start, I shall examine three mechanisms: modes of reflexivity; relational goods and evils; and national and organizational contexts, to understand teachers' curriculum making practices better. I shall argue that a dynamic and nuanced understanding of the modes of reflexivity may explain distinctive aspects of teachers' social actions, and also offers a strong theoretical and methodological tool to develop robust and rigorous insights into teachers' curriculum making. I shall then continue with an explanation of relational goods and evils, terms coined by Donati and Archer (2015) which emerge from teachers' social interactions, to provide a deeper understanding of how relationality played a role in their practices. Finally, the national and organizational context will be examined, as both a social structure and cultural construct, by means of which teachers act and are shaped. Building on the previous chapters, I shall argue that these underlying mechanisms hold strong explanatory power to explain the mediatory role of reflexivity and networks in teachers' curriculum making practices. This argument will be examined in relation to relevant research findings, as part of the evaluation of their explanatory power, following a critical realist approach (Danermark et al., 2002). Hence, a discussion on the synthesis of the findings will be presented in this chapter to explain how they concur with, contradict, or challenge the current ongoing academic conversations.

9.1. Modes of reflexivity

Archer's (2003, 2007, 2012) reflexivity theory has two fundamental arguments; first, reflexivity is an indispensable element of the social world; and second, reflexivity is not a homogenous phenomenon and there are different forms that this reflexivity takes. These arguments were evident in this research study in the context of curriculum making. In this section, I shall examine the explanatory power of modes of reflexivity as an underlying generative mechanism of teachers' curriculum making by drawing on existing literature and the empirical findings.

As explained in Chapters 4 and 8, Archer (2003, 2007, 2012) proposed that the four modes of reflexivity are neither stable nor deterministic and, therefore, cannot be reduced to fixed personality types. This caveat has been applied throughout my research. In fact, the empirical data accorded with this point and suggested a need for a more dynamic, context-dependent and relational understanding of the modes of reflexivity, to understand what stances teachers held and how they acted in mediating structural and cultural enablers and constraints. These four primary modes of reflexivity enabled me to explain how curriculum making may vary in individuals and across different social contexts. For example, what we saw in Rosy's case was an extensive exercise of reflexivity, with different marks of each modality, at various points in time during a major curriculum reform. This reinforces the idea that 'the extensiveness with which reflexivity is practised by social subjects increases proportionate to the degree to which both structural and cultural morphogenesis (as opposed to morphostasis) impinge upon them' (Archer, 2012, p. 7).

Archer (2012) argues that individuals come into exercising certain modes of reflexivity through their life course, in orienting themselves towards structural and cultural conditions. Hence, it becomes important to look at the role of teachers' biographies in greater depth, as they may explain some tendencies towards a particular dominant mode (Archer, 2012) or development of it. For example, Tim's case illustrated that having a relatively satisfactory experience with the previous curriculum, unsatisfactory sense-making activities regarding the new curriculum, and some troublesome events, may shape how teachers' reasoning and decision-making change. This is a fine and difficult balance that Aitken (2006) mentions on introducing new curriculum reforms, as these will challenge teachers' previous schema to a degree, but will not lead to misconceptions or superficial adjustments. Hence, the key seems to be ensuring coherent and supportive sense-making activities (Soini et al., 2018; Sullanmaa et al., 2019b). It is important to note here that it is possible for Tim to exercise his previous mode if the circumstances are encouraging and support mechanisms are favourable (Archer, 2012). Also, Kyla's case demonstrated how a propensity towards keeping mental wellbeing healthy and a need for a community in the midst of an unsatisfactory social context partially explained teachers' decisions regarding curriculum, and broadly the profession as a whole. There is growing research around the impact of accountability measurements and performativity culture on teachers' health and wellbeing (e.g., Skinner, Leavey, & Rothi, 2019) and their practices. Thus, this finding, especially in relation to fractured modality, calls attention to examine teachers' internal conversations and to determine what contextual factors and certain curriculum ideologies may trigger a particular mode coming into presence.

Archer (2012) argues that context continuity (confronting similar structural and cultural circumstances), contextual discontinuity (a change in the context and absence of similar and familiar situations and alters), and contextual incongruity (referring to the intensification of social change) are important for understanding the modes of reflexivity and, ultimately, how teachers' navigate their way through curriculum making. This links to the interwoven nature of the mechanisms offered in this research. In other words, modes of reflexivity should not be considered as isolated constructs. Instead, they should be considered alongside relational goods and evils, as well as within national and organizational contexts.

What I propose in my research, regarding a nuanced and dynamic understanding of the modes of reflexivity as a mechanism, I have also discussed in the context of educational research (see Chapter 3). Some have argued that people may practise different modes at the same time (Kahn, 2013; Lord, 2016) or they may have provisional, temporary (Wimalasena, 2017) or 'auxiliary' modes (Lord, 2016) alongside their dominant reflexivity mode. In fact, Rosy's case concurred with these findings that people may exhibit a provisional or relational mode depending on the circumstances and the concerns and priorities of the social actor, and then they draw on these modes when required. This was also observed in my pilot study (Hizli Alkan & Priestley, 2019) and elsewhere (Kahn, Everington, Kelm, Reid, & Watkins, 2017). Moreover, earlier research suggests that there are different degrees of practising one mode of reflexivity and that there might be differences in personal and professional modes (Lord, 2016). Although my research only examined reflexivity in the context of curriculum making, and arguably can be referred as a professional form of reflexivity, it would be empirically and theoretically challenging to draw a line between personal and professional forms of reflexivity, as they are often interlinked.

Because my work suggests that teachers' modes of reflexivity are powerful underlying mechanisms of curriculum making, it is important to look at the literature that investigated how these modalities developed, were sustained or changed. Teachers' professional histories, a shift in their roles, and curriculum demands will have an impact on transforming the mode of reflexivity they practise (Westaway, 2019). Ryan (2014) suggests that, if people are aware of their modes of reflexivity, they may be able to find ways to manage and improve their practices. It may be even possible to develop a certain mode through teaching about critical reflection (Cavener & Vincent, 2020). These are important findings to emphasize the implications of my work, because a dynamic and sophisticated approach to modes of reflexivity holds a strong potential, not only to understand the mediation of curriculum making practices, but also to rethink teacher education

and development programmes, as well as designing meso curriculum support. I shall shed light on this in detail in the final chapter.

As mentioned earlier, the four modes of reflexivity model was challenged and, as a consequence, some research offered additional modes to Archer's (2003) typology. For example, Porpora and Shumar (2010) investigated the relationship between autonomous and communicative reflexivity and suggested that total reflexives (high on both) and non-reflexives (low on both) could be added to the four modes of reflexivity. Some even argued that there may be as many modes of reflexivity as there are human beings (Matthews, 2017). The findings of my research suggested that the four modes of reflexivity provide a comprehensive lens through which to capture diverse social actions in the context of curriculum making. As Dyke et al. (2012) suggest, these modes should be considered as a repertoire of reflexive approaches that people can draw upon to mediate their actions. Besides, these modes of reflexivity make the mediation process 'visible', so that there might be increased awareness as to the ways in which people draw upon their personal, structural and cultural resources (Ryan, 2014). People may exhibit strong features associated with a certain mode of reflexivity, predominantly in a particular social context, which is always open to change. Raffo, Forbes, and Thomson's (2015) conceptualization of modes of reflexivity as sub-ecologies of educational reflexivity and agency seems apt to me, as it considers the dynamic interplay between structure, culture, and individuals, as well as social interactions. Moreover, a more complex and dynamic understanding of modes of reflexivity as a tool can address Schwab's (1969) 'the Practical' by investigating one of the commonplaces, teachers (see Chapter 3), considering both regularities and particularities of teachers' practices.

Overall, I argue that the modes of reflexivity are a salient feature of teacher mediation of curriculum making and have strong explanatory power to explain teachers' stances towards curriculum, reasoning, decision-making and actions. Teachers are offered a range of choices and are embedded in unique social contexts, and their modes of reflexivity explain to us their actions by means of their social environment. This will also allow us to take the important work of Dewey (1933) and Schön (1983) further, while responding to the discourse around the increasing need for teachers to be reflective practitioners within different sites of curriculum making.

9.2. Relational Goods and Evils

In her later work, Archer (2012) was influenced by Pierpaolo Donati's (2011) work on relational sociology, which concerns the notion of 'relation' as a unit of analysis and how reflexivity can manifest itself within relationality. 'Relational goods and evils' as a term was drawn from Donati

and Archer's (2015) work, which I use to indicate some of the relational assets that emerged from the teachers' curriculum making relationships. More specifically, they are the qualities or products which are generated through social interactions over time and perceived either positively or negatively by the teachers in their social environments and provide a context for subsequent actions. These relational assets are, therefore, context and activity-dependent, meaning that they are open to change, depending on the absence or existence of some personal, structural and cultural emergent properties. Nevertheless, the following relational goods and evils appeared to have a strong explanatory power (Danermark et al., 2002), as generative mechanisms that are unseen and unobserved at the empirical level, to explain why teachers might act in certain ways. It is important to bear in mind that not all relational goods and evils were present in all of the teachers' networks. My primary aim is to elucidate how their existence helps us to understand teacher mediation of curriculum making in general. The analysis of the network data, which was complemented by the other data sources, illustrates that five areas manifested for relational goods and four areas did for relational evils, which are explained respectively in the following sections. I shall draw on the relevant literature to discuss the synthesized findings.

9.2.1. Relational Goods

The relational goods emerged as the qualities that had a positive impact on curriculum making by teachers, signifying that the teachers perceived them either as enriching or assisting their practice, and that they enhanced the quality of their curriculum work in some ways. These are explained as distinct entities for analytical purposes, but the dynamic and interactive nature of these emergent relational goods must also be considered. For example, some relational goods can minimise experimenting with new territories or taking risks for some teachers, and so have the potential for reproducing the same structural and cultural circumstances (morphostasis), whereas others can act as a springboard and as encouragement to initiate a change to or an enhancement of curriculum work. This is where the other two underlying mechanisms, modes of reflexivity and national and organizational context, come into play.

9.2.1.1. Collegial trust, diversity of support, high quality and frequent conversations and multiplexity of ties

These emergent properties of relationships had a strong and positive mediatory role in curricular activities, including decision-making and classroom practice. Collegial trust, which is different than relying on somebody's expertise following a utilitarian perspective (e.g., trusting people for only having connections with the SQA), would involve a wider consideration of knowledge, experience, expertise and, in turn, has a potential to enhance the quality of curriculum work. Although this

finding resonates with literature (e.g., Liou & Daly, 2014; Moolenaar & Sleegers, 2010), there is generally a lack of critical understanding of trust. My findings suggested that teachers' perceptions of trust will offer nuanced insights about the quality of relationships. That said, I am unable to claim in my research any evidence of reciprocity of trust, which is argued elsewhere to facilitate collaborative relationships (Priestley et al., 2015; Sinnema et al., 2020). Moreover, where a diversity of support was available in the network, this acted as a facilitative mechanism for the curriculum work of the teachers (e.g., Karen). The availability of emotional support, which was not evident in all cases, acted as a coping mechanism (e.g., Kyla). The intensity and frequency of communications enabled the teachers to make sense of some complex ideas, especially when there was a change to be enacted in schools (e.g., Rosy). Multiplexity of ties, meaning that alters acted in different roles such as friends and colleagues, tended to be stronger and provided emotional support to tackle some challenges more effectively. This finding is supported by Siciliano et al.'s (2017) work, suggesting that teachers tend to consider friendship when choosing whom to talk to. On the other hand, some research (de Lima, 2001) argues that such multiplexity may silence criticisms at times, so there needs to be a caveat here in translating this idea in different contexts. Overall, these properties indicate that the quality of relationships and a more in-depth understanding of teachers' professional and social interactions partially explain the mediation of teachers' curriculum making practices.

9.2.1.2. Shared understanding, concerns, priorities and interests about curriculum

The presence of these qualities in the networks explains to an extent with whom the teachers talk about curriculum making, the dynamics of these relationships, and the ways in which the teachers undertake curriculum making, sometimes purposefully or strategically or, under the mandated policy/practice, involuntarily. These qualities often enabled the teachers to engage with what Anderson (2010) calls mission-aligned practice (e.g., Rosy), to leverage the quality of curriculum work (e.g., Kyla), and to receive instrumental support (e.g., Erica). There was evidence that the current policy/practice climate, personal emergent properties, and the cultural norms and practices in the department had the potential to shape the generation of these relational goods. The literature depicts a mixed picture with this respect. For example, Siciliano et al. (2017) argue that teachers no longer seek similarity (e.g., in beliefs) to form networks, whereas others (Reagans, 2011) suggest that homophily still contributes in explaining relationships. My work argues that these characteristics do not simply manifest as the teachers relying on similarity in their curriculum making networks; this is not always the case, as shown earlier (see Chapter 6). However, this serves to underline that these qualities often strengthened the connections and

created opportunities to collaborate or exchange ideas in some ways. In other words, these enriched the relational events (Smith et al., 2012), which potentially helped the endurance of relational states. From another angle, it is one thing to be concerned about, for example, lack of curricular support and collaboration and trying to find ways of mitigating this (e.g., Joanne); it is another thing to project no actions despite sharing the same concern (e.g., Tim). An examination of modes of reflexivity is, therefore, crucial to address and explain this difference.

9.2.1.3. New communication channels and possibilities for alternative ways of seeing and doing

These characteristics should be considered as complementary to the ones mentioned in the above sections, indicating the necessity and importance of a combination of strong and weak ties for enabling access to different kinds of support. It was evidenced that novel connections were formed, for example, through meso curriculum support activities (e.g., Rosy), and already established connections were utilized in different areas and for different purposes, such as the new Drama curriculum in Kyla's school. The opportunity of new spaces and channels for talking about curriculum making, or at least the idea of it, was greatly welcomed by all of the teachers in my research with different purposes, including instrumental. Voogt, Pieters, and Handelzalts (2016) suggest that such professional development opportunities, specifically organized for curriculum design, can enhance teachers' pedagogical knowledge and influence curriculum change effectively. Such communication channels would include meso curriculum events, reconfigured departments, whole-school projects, self-motivated professional development activities (e.g., Creativity Summer School – Kyla) as well as social media sites (e.g., Twitter and WhatsApp – Tim, Erica, Joanne). These relational events enabled the teachers to bring a different perspective to their practice, or sometimes provided some material support, even when the relationships were perceived to be not so strong.

Tim's case is a good example of having more beyond-school ties compared to in-school ties. He said: 'I've read his article and it made a lot of light bulbs go on in my head'. This is indicative of how having or creating an alternative way of seeing teachers' own practice can influence the ways in which teachers engage with curriculum policy/practice. Paraphrasing Deweys' (1916) words, a book can establish a closer connection between people who are geographically distant from each other compared to those living in the same place. This contradicts Siciliano et al. (2017), who suggest that teachers may tend to stay within their already established connections to avoid the cognitive and emotional burden of seeking advice from new connections. The findings of my research add to this existing discussion of the importance of relationality, which needs to be

considered alongside the modes of reflexivity and contextual factors. Moreover, this finding calls for an investigation of the interactions between the material in curriculum making, in addition to the human interactions (e.g., Tronsmo, 2019).

9.2.1.4. Positive, transparent and effective interpersonal and departmental communications

Extensive and rich explorations of interpersonal and departmental communications enabled identification of what made the teachers mediate curriculum making practices effectively. One of the recurrent themes was the significance of the interpersonal relationship with the head of the faculty, which may enable and hinder curriculum making, and can potentially impact job satisfaction. In fact, much research has underlined the importance of facilitating different types of leadership within the departments and schools, a lack of which has an impact on teachers' job satisfaction and prevents them from contributing to creating a collaborative and collegial culture (Cameron & Lovett, 2015; Liou & Daly, 2014). Listening to each other, respecting each other's opinions (e.g., Tim) and supporting each other (e.g., Kyla), as one of the building blocks of these qualities, prompted strong professional learning communities that were evidenced in the teachers actively being involved in joint challenging curricular tasks (e.g., Rosy), and in creating a positive climate in the faculty and the school (e.g., Erica). Departmental culture is argued to be one of the indicators of establishing opportunities for teachers' professional development (de Lima, 2008) and the capacity of schools to make curriculum change happen. Hence, taking a closer look at interpersonal and departmental relationships will extend our understanding of teachers' actions undertaking curriculum work.

9.2.1.5. Complementary and applicable ideas in practice

The ideas that complemented the teachers' concerns, priorities and practices, as well as the practicality of them in terms of enacting in the classroom and school contexts, were identified as other relational goods. As mentioned earlier, there needs to be a caveat on the degree of the complementary and applicable ideas when it comes to introducing new curriculum reform. Huizinga, Handelzalts, Nieveen, and Voogt (2015), similar to Aitken (2006), suggest that the alignment between the new curriculum reform and the support offered, with prior experiences and ideas, should be carefully planned. In the case of this research study, the aforementioned relational goods often provided the teachers with the means to take a higher level of curricular ideas and apply them classroom level practice. Hence, this relational good would require obtaining a rich and detailed picture of teachers' current practices and curricular ideas.

The influence of this relational good was particularly evident in the extent of the alters' influence on curriculum making practices. This underlines the importance of establishing clear and consistent policy/practice messages while taking into account teachers' prolonged educational ideas and day-to-day practices. By saying that, I would like to reiterate here that it is by no means an advocation for reproducing habitual practices established in schools without careful and critical scrutinization.

9.2.2. Relational evils

Four themes emerged as relational evils, signifying that they had a negative impact on the teachers' curriculum making. They often disabled the teachers from having a satisfactory engagement with curriculum making and consequently resulted in morphostasis or led to teacher attrition. Hence, I argue that the affective domain of relationality in curriculum making should receive greater attention in network research.

9.2.2.1. Negative sentiments and judgements associated with interpersonal and departmental relations

Feelings of frustration, uneasiness, distress and difficulty within the relationships were revealed in the negative sentiments and judgements. These emerged when, for example, there was a perceived lack of praise for good curriculum making, as perceived by individuals, or a lack of encouragement to take risks or make mistakes, or simply when the teachers may not get on well with each other. This finding resonates with Daly et al.'s (2015) argument that the lack of nurturing innovative climate in schools is associated with the effect of negative ties and in turn the low level of trust in the networks. This finding resonates with those relating to Heather and Ashley, who are positioned at the lowest level of the average degree of trust in their networks. Examination of these sentiments is crucial, as they are the building blocks of negative ties, in which reciprocity and closeness are found to be weaker (Harrigan & Yap, 2017), and this has a profound influence on how teachers may benefit from their social interactions.

These qualities reflect the affective dimension of relationships that were perceived to impede curriculum making practices in different ways. The dominance of these qualities was particularly effective when there was a formal expectation of collaboration between teachers (e.g., Heather) and on the relationship with the head of faculty (e.g., Ashley). I previously explained how Heather's relation with 4C (a colleague/negative tie) acted as a barrier to their collaborative work and affected her emotionally. As for the relationship with the head of faculty, Ashley's case is a

strong example to illustrate how negative ties can obstruct curriculum making and inhibit job satisfaction to a great extent.

9.2.2.2. A lack of conceptual, pedagogical, curricular and operational support

This theme is derived from Humes's (2013) work, as these dimensions effectively capture what the data suggested regarding the mechanism of relational evils. The absence of support affected the teachers' curriculum making practices in different ways. For example, a lack of conceptual clarity often exacerbated frustrations about how to proceed with curriculum work (e.g., Tim). Indeed, conceptual change is one of the most difficult aspects during a curriculum reform that can be addressed through teachers' relations (Horn & Kane, 2015). Nevertheless, there is compelling evidence from previous research that teachers often have insufficient understanding of curriculum design (Huizinga, Handelzalts, Nieveen, & Voogt, 2014), which can be enhanced by teacher development programmes that are specifically focused on curriculum making (Voogt et al., 2016). It is important to note here that some teachers may be able to tackle the unclarity or confusion about the mixed messages in the system more successfully than to others, for which the modes of reflexivity approach offers a powerful explanation, as illustrated in the previous chapter.

The absence of diversity of support potentially explains: tie formation and activation to access further expertise or support; certain characteristics pertaining to the quality of relationships; and how influential the alters are, to a certain extent. This finding reinforces the idea that sufficient, diverse and timely support is essential for addressing the complex needs and expectations of teachers for more effective and sustainable curriculum making practices. The importance of meso curriculum support (Priestley et al., 2021) offers a hybrid model in which teachers are seconded to work in curriculum design, to bring together academic knowledge and classroom-based experience (Theodorou, Philippou, & Kontovourki, 2017). Moreover, research-informed school-based activities that are organized by academics (Priestley & Drew, 2019) may offer meaningful and practical support to teachers who undertake curriculum work (see Chapter 10).

9.2.2.3. Conflicting ideas and incompatible perspectives to practice

As Achinstein (2002) stressed, conflict is inescapable when we talk about teacher collaboration. Hence, it is not surprising to observe conflicting ideas and incompatible perspectives through teachers' networks. A major contribution of my research lies in the detailed insights about this relational evil, as perceived by the teachers, that were just the opposite of what Stillman (2011,

p. 134) calls 'productive tensions' – referring to enhancing practices without simply complying with the policy agenda.

Conflicting ideas concerning pedagogical decisions are either perceived as being ineffective by the teachers, or inapplicable due to time and budgetary limitations, as well as exam pressures. Incompatible perspectives were evident when the curricular expectations from the teachers conflicted with either what they believed was right or how the success was ultimately measured. These findings resonate with much research in this area (Penuel et al., 2009; Philpott & Oates, 2017), which has argued that accountability pressures influence how teachers benefit from their interactions and inhibit teacher agency. These ideas and perspectives were not only associated with the alter and ego relationships, but also with broader connections, such as the relationships between the inspectorate and the school under the performativity pressures, which also emerged as being influential in the teachers' practices. This reinforces the importance of examining curriculum making by utilizing a relational approach and the criticality of meso actors and activities that might facilitate teachers' curriculum making in schools (Priestley et al., 2021).

An example of how incompatible perspectives can make teachers feel as though they are caught between a rock and a hard place can be found in Tim's case. Particularly in relating to Broad General Education (BGE), Tim was not sure whether his curriculum making practice should reflect BGE aims or whether it would start to prepare for examinations in S4. This was the area where he felt that what the performativity system requires and what CfE actually aspires were mutually exclusive in his practices. He also commented on the difficulty of applying some of the principles of CfE in classrooms due to *'the lack of consistency, coherence, and the vastness of it'.* These insights illustrate how teachers may develop a fractured mode of reflexivity related to these relational evils, which subsequently disable them from initiating actions.

9.2.2.4. Tensions in the department and resistance to change

An introduction to how departmental relations may affect curriculum making is presented above, with a particular focus on the negative ties, yet this remains partial, as some relations are perceived to be challenging without holding negative sentiments. Still, the arising tensions or resistance from these relationships acted as a barrier to further develop curriculum making practices. It is important to note here that, although the notion of teacher resistance is under-theorized (Smith, 2020), I conceptualize it here as practices that imply unwillingness and are perceived to be challenging to navigate by the teachers. Karen's case is an example of this. One alter, 8G, a history teacher, was perceived to be one of the biggest challenges, as 8G had several

reservations about the new curriculum. This resulted in Karen taking slower steps and disseminating limited information to ease the change process. Such tensions and resistance can explain why these conversations lead to postponing the new curriculum work, or at least some sense-making activities, at the school level. Moreover, in some cases, the teachers came up with some strategic ways of mediating their network, for example, in the case of Heather: '*4A does not like 4B, 4C does not like 4A. 4A has the most influence over these people. If I can get him by my side, I would.*'

In Ashley's case, on top of a perceived lack of support from her head of faculty (5E) for curriculum making, she also felt that, although she was '*ticking a lot of boxes for them when they get inspected',* with working with higher tariff students to enable them to get National Qualifications, this work was neither praised nor supported, according to her. This resulted in her stopping this practice and subsequently exacerbated the tensions in the department. Although we see a difficult and complex relationship between her and 5E, the pressure on rising tariff points is an important mechanism to explore in more depth, and linked to the performativity culture, which I shall discuss next.

9.3. National and organizational context

As explained in Chapter 2, the boundaries between the different sites of curriculum making, including the macro and micro, are porous and multi-dimensional in relation to which different activities and actors take place (Priestley et al, 2021). My research shows how teachers were either voluntarily or involuntarily positioned in these sites, which affected their curriculum making practices in different ways. As I consider teachers' curriculum making as relational practice in an open system, the three generative mechanisms are not isolated entities; instead, they are strengthened or sometimes suppressed by other mechanisms to create events. This section captures three sub-themes under the national and organizational context: faculty departments as a social structure; curriculum reform as a chain of organic interactions; and performativity culture. These provide a window into understanding why the mediation happens in certain ways. I shall briefly explain each subtheme respectively.

Faculty departments as a social structure

As discussed in the previous three chapters, the way in which the faculties are organized into the small subject units may explain the tie formation, activation and the composition of the networks, as well as the content of internal and external conversations. Similarly, Meredith et al. (2017) found that the formal organization of the schools as sub-units may explain homophily and

proximity, and may potentially make the expertise visible. On the other hand, de Lima (2007) argue that this departmentalisation potentially creates distinct social worlds within the school that result in different understandings, for example, of a whole-school development, and these challenge the improvement of schools and teachers. Moreover, it has the potential to facilitate how the information is sought and exchanged. This is crucial, as this has an impact on how curriculum making happens and improves through teachers' development within and beyond their organizations. Besides, the faculty heads were often in a strong position in shaping curriculum making practices in different ways, including hindering the teachers' practices (e.g., Ashley). This finding resonates with much research in this area (Cameron & Lovett, 2015; Sun, Penuel, Frank, Gallagher, & Youngs, 2013; Vangrieken et al., 2017), in the sense that the formal positions of the people within the faculties influence how the ideas diffuse in the schools and ultimately impact on teachers' job satisfaction and their professional development. Thus, departmentalisation as a social structure needs particular attention when looking at curriculum making by teachers as relational practice. Although the departmentalisation may make expertise visible and create opportunities to access expertise, preventing teachers from coming isolated, there is a risk of seeing lack of transformational practices, and therefore morphostasis may occur. Erica and Ashley's cases were examples of this. In contrast, Rosy and Karen's cases illustrated that the core ideas of the new curriculum reform may require an alternative configuration of departments. Thus, the curriculum-related roles can act as a catalyst in this process, providing timely and adequate support at meso curriculum making.

Curriculum reform as a chain of organic interactions

Curriculum reforms, as a chain of organic interactions, introduce a variety of structural and cultural changes to be enacted. My research demonstrates that these changes may or may not be realized within the schools, depending on several factors, such as shared understanding, communication, and the provision of support to teachers, or lack thereof. There is a wide array of research undertaken in this area that supports this finding (März & Kelchtermans, 2013; Pietarinen, Pyhältö, & Soini, 2017). In order to address this sub-theme, it is first important to identify the channels and the ways in which curriculum reform is communicated to the teachers. My findings show that formal and informal connections serve particular purposes regarding curriculum making, and meso curriculum support in facilitating this communication and organization of curriculum reform is crucial. Previous research supports this insight by arguing that local policy and organizations affect the quality of implementation and how teachers made sense of the curriculum reform (Pietarinen et al., 2019; Soini et al., 2018; Sullanmaa et al., 2019b). We also know that such policies influence the structure and content of the networks (Coburn et al.,

2013). My research has provided examples (e.g., Rosy, Karen) of how novel connections can be introduced by curriculum reform demands and bring opportunities to understand the new concepts and rationale for the new curriculum. Also, strong evidence emerged in my research to show that the interplay between the teachers' internal and external conversations act as a filter for curriculum reform demands. However, there is a caveat here on how meso curriculum support is designed and what purpose it serves. For example, Ashley's case, where the only meso curriculum support was observed in Scotland, demonstrated an instrumental example without providing conceptual, pedagogical, curriculum design-related support. Thus, timely, purposeful and holistic support for achieving the ideals of curriculum making is essential. In the absence of this, there is a risk that teachers who seek a convincing rationale and practical support on their curriculum making might suspend their active mode of reflexivity and revert to exhibiting fractured modality (e.g., Tim). This then feeds back on teachers' concerns and priorities in curriculum making and can potentially recreate performativity culture, which I am going to address in the next section.

Performativity culture

It was evident that the performativity culture, which was often experienced through accountability practices, was one of the most powerful mediators of curriculum making. As such, this had an impact on the texture and dynamics of internal and external conversations and led to some instrumental actions at times. Penuel et al. (2009) assert that the content of teachers' interactions mostly related to accountability rather than instruction. Similarly, Berebitsky and Andrews-Larson's (2017) research suggests that teachers sought advice from people who were deemed to have the expertise as a consequence of accountability pressures. In fact, the teachers who had the SQA links in their networks, accompanied by high trust and engaging in assessment-related conversations, were a good example of this argument (e.g., Erica, Ashley, Joanne). As discussed in the previous paragraph, meso curriculum support can be utilized for improving performative measurements, too. I would also argue that this is exacerbated through practising an autonomous mode of reflexivity, which requires demonstrating lonely internal conversations (e.g., Erica, Ashley). Ultimately, this renders the job of teaching as a profession in which only the individual teacher holds accountability, therefore putting them at risk. This hinders meaningful and good curriculum making, as the teachers felt at risk when taking innovative approaches or when they simply lacked the motivation, as what is valuable for them may not be considered as such, according to performance indicators.

Conclusion

This chapter addressed the final research question regarding the underlying generative mechanisms of curriculum making by drawing upon a critical realist data analysis of the teachers' internal and external conversations and by presenting a discussion relating the findings to the current literature. The core purpose of this thesis was to understand the mediation of curriculum making by teachers and the three mechanisms provided a window into this complex and relational phenomenon. First, I explained that a nuanced and dynamic approach to the modes of reflexivity provides powerful theoretical and methodological tools to make sense of how teachers respond to curriculum reform expectations. Modes of reflexivity explain, even partially, how teachers take certain standpoints and project their actions in distinctive ways. I have argued that these should not be seen as fixed personality types, but rather as an interactive construct which helps people mediate structural and cultural factors in their social environment. Second, I explained the importance of looking at what relations hold, namely relational goods and evils, to understand teachers' interactions and collaborations better, as this is another strong mediatory factor in curriculum making. Without having rich and comprehensive information about teachers' relationships, the structural characteristics and patterns will remain incomplete. This is also important, as relational goods and evils interact with the modes of reflexivity in multidirectional ways. Third, the national and organizational contexts, which referred to the school's formal organization, curriculum reform and performativity, have effectively shaped curriculum making practices; this was evident in the teachers' internal and external conversations. The questions that these findings opened up, the related implications, and my reflexivity looking forward, will be presented in the final chapter.

Chapter 10. Concluding Chapter

Chapter 10 Outline

Danermark et al. (2002), one of the biggest influences on my critical realist data analysis, state that 'all knowledge is fallible and open to adjustment. But – not all knowledge by far is equally fallible' (p. 15). In order for the findings of my research to be 'less' fallible, as there will always be a degree of fallibility, I have so far sought to identify and examine underlying generative mechanisms to offer nuanced, evidence-based, and theoretically informed explanations. Furthermore, I provided detailed insights about the teachers' unique contexts. This final chapter outlines the summary of the key findings by revisiting the research questions and foregrounding some questions that my research opens up. Then, I discuss the original contributions of my research to the existing knowledge base, and I explain the limitations. Finally, I explain the implications of my research for policy, practice and research, and conclude with some final remarks on the thesis and my professional learning journey.

10.1. Summary of the key findings

This thesis began with an invitation to contemplate on the complexities of 'kaleidoscopes' and examine unobservable underlying mechanisms. Drawing on my personal and professional baggage of knowledge and beliefs, and the gap that I identified in the academic literature, my main argument was that there was a need for a fine-grained examination of teachers' curriculum making practices and the mediating role of networks and reflexivity. One of the core aims was to offer some possibilities, questions, and insights to understand why teachers' practices manifested in different ways. As illustrated throughout, some existing curriculum research (e.g., Craig 2021; Heikkilä, 2020; Mitchell, 2017; Taylor, 2010; Tronsmo, 2019) provided valuable perspectives, albeit a lack of extensive analysis of teachers' internal and external conversations in the context of curriculum making. To put it another way, relational aspects of curriculum making, which are evident through reflexivity and networks, require further attention to understand why teachers respond to curriculum policy demands in different ways. In order to address this, I formulated seven research questions, through which I shall now synthesise the key findings, drawing upon three broad areas that my research concerned: teachers' internal conversations; teachers' external conversations, and the interplay between them. At the end of each section, I pose some of the questions raised for me by the findings, and I conclude by suggesting ways in which future research, including my own, can address these. These questions derived from some of my notes of the surprises, regularities, irregularities and opportunities that I encountered during the data

analysis process. Additionally, my intellectual wonderings on the findings, some new methodological possibilities, and potential practical implications for teachers' professional learning also opened up these questions.

10.1.1. Teachers' external conversations – Networks

RQ1: *How are secondary school teachers' curriculum making networks structured and composed?*

RQ2: *What are the structural and cultural dynamics in these networks and in what ways do teachers mediate these in curriculum making?*

The first two research questions were addressed in Chapter 6 by establishing how the teachers' networks were structured and composed. I explored a number of structural characteristics, and the quality and content of curriculum making networks, as well as their influence in curriculum making. The data suggested that some teachers formed ties with mostly in-school connections, whereas others had several beyond-school ties, such as academics, local curriculum advisers, and education specialists. The subject background, role and context similarity/diversity helped me to understand this variation because the networks that establish strong similarity or diversity in these areas appeared to engender particular ways of curriculum making. Moreover, the structure, composition and dynamics of teachers' ego-networks can be explained in relation to their formal curriculum roles, schools' formal organization, and personal factors.

I also examined subjective meanings given to their relationships and the qualities attached to the relations, such as strength and trust. Relational goods and evils emerged as underlying generative mechanisms, which had a strong mediatory role in teachers' curriculum making practices. For example, collegial trust, diversity of support, multiplexity of ties, and complementary and applicable ideas for practice emerged as relational goods, whereas negative ties, and a lack of conceptual, curricular and operational support hindered the teachers' curriculum making practices and often led to a lack of job satisfaction. These were mediated by personal and contextual factors, of which performativity pressures emerged as a strong factor. Moreover, how curriculum making is understood, and certain curriculum ideologies held, induced a particular emphasis on the structure and culture of the networks and influenced how the teachers ranked the quality of their relationships. For example, if there is an emphasis on the content and product domain of the curriculum within a performativity culture, particular ties may be formed (e.g., SQA links), and the conversations tend to be about the content and assessments. Furthermore, the teachers' sense of curriculum-related roles, their state of mind regarding the teaching profession,

and attitudes towards curriculum and teaching in general influenced the extent to which they benefited from their networks. For example, the teachers who were concerned about assessment and accountability sought mostly instrumental support through their networks and the content and the dynamics of the network were shaped accordingly.

Navigating curriculum making networks in relation to different factors emerged as an important area for further investigation. Returning to the anecdotes I explained in Chapter 1, my findings reiterate the importance of teachers' perceptions of curriculum within that navigation. Hence, I pose the following questions for future research, which are also signposted in my two published articles, derived from my PhD data (Hizli Alkan & Priestley, 2019; Hizli Alkan, 2021), and for which I shall offer some suggestions at the end of the section. I shall conclude this thesis by looking forward and describing how I intend to address these suggestions in my onward journey.

- *How can teachers be supported to develop a sophisticated understanding of curriculum to mobilize the opportunities of the networks?*
- *How can the relational goods that networks generated be developed and/or cultivated while ensuring the habitual practices are not reproduced?*
- *How do teachers navigate negative ties in curriculum making and what can be done to ensure these do not inhibit teachers' practices?*
- *How can the structure, content and dynamics of the network predict sustainable and effective curriculum making practices?*
- *How can a lack of beyond-school curriculum support be addressed by a multi-agency approach to curriculum making, including meso curriculum actors?*

10.1.2. Teachers' internal conversations – Reflexivity

RQ3: What are teachers' concerns and internal conversations regarding curriculum making?
RQ4: In what ways does teacher's reflexivity (exercised in internal conversations) play a role in mediating curriculum making practices?

Chapter 7 addressed the third and fourth research questions and explored the teachers' internal conversations about curriculum making and their related concerns. I conclude that reflexivity appears to be an essential element to understanding why teachers adopt different stances and act upon curriculum demands in different ways. I have suggested several ways in which teachers' reflexivity might be exercised, and a variety of forms of internal conversations that condition teachers' practices in various ways. For example, some teachers mulled over the question of

whether they were reinventing the wheel, which seemed to point to a lack of curricular support and collaboration across stakeholders. Others had tried to clarify for themselves the coherence of different parts and practices of curriculum, or had imagined alternative ways of curriculum making through their internal conversations. These internal conversations were closely related to what concerned them or what they had to prioritise at the time of my research. This suggests that teachers may hold different concerns and priorities at different stages of a curriculum reform, which ultimately alter how they practise a certain mode of reflexivity, and perhaps while exhibiting a provisional mode at the same time. It should also be borne in mind that the distribution of and access to resources is not equal (e.g., the level of meso support was perceived to be uneven), and teachers have their own professional life histories, which have an impact on practising reflexivity in different ways. This ultimately shapes how curriculum making is mediated.

My research provided evidence that the intensity and form of reflexivity changes, depending on the different emergent properties, including the structural and personal. For example, the performativity culture may enforce some kind of passivity or compliance, which the system demands. Additionally, the teachers' formal roles, modes of reflexivity, and the contexts in which they were situated, influenced the content, intensity and the texture of internal conversations. This suggests that how teachers positioned themselves in curriculum making and how they adopted certain standpoints and actions related to curriculum can be explored through internal conversations. Because there is a multidirectional connection between external conversations, examining teachers' networks in addition to reflexivity will offer a more comprehensive picture of teachers' curriculum making.

Given the dynamic and multifaceted nature of reflexivity and its mediatory role in teachers' curriculum making practices, I have become very interested in investigating this complex phenomenon through different lenses at different times, as curriculum making entails a range of forms of activity. Consequently, I raised further questions for future research:

- *How can teachers' reflexivity be cultivated in the different stages of curriculum reforms individually and collectively within diverse contexts?*
- *How can we develop a dynamic and sophisticated approach through different theoretical lenses to investigate modes of reflexivity to contribute to Archer's framework and to rethink teacher education and development?*
- *How do curriculum reforms and teachers' reflexivity interact to create certain modes of reflexivity or induce exhibiting certain relational modes?*

10.1.3. The interplay between internal and external conversations

RQ5: What are the personal, structural and cultural properties that emerge in curriculum making practices, in regards to the internal and external conversations?

RQ6: In what ways does the mode of reflexivity play a role in the interplay between internal and external conversations about curriculum making?

RQ7: What are the generative mechanisms that underlie secondary school teachers' curriculum making practices?

The multi-directional nature of the interplay between internal and external conversations was explored by using reflexivity and ego-network as theoretical and methodological tools. The core aim of Chapter 8 was to explore whether people exhibiting different modality experience this interplay in distinctive ways and thus offered four different vignettes of curriculum making practices to shed light on how different modes of reflexivity may manifest in certain practices. In other words, modes of reflexivity, as a powerful underlying generative mechanism, enabled me to delve into the four unique images of the 'kaleidoscope'. Briefly, communicative reflexivity may trigger teachers to mediate curriculum making practices as dialogic and consensual practice, meaning that their internal conversations require external affirmation and confirmation. Autonomous reflexivity brings about prioritisation of strategic and instrumental practices of curriculum making. On the contrary, meta-reflexivity mode generates a more critical and reflective stance and projects actions accordingly. Finally, a dominance of fractured modality is manifested in inconclusive internal conversations, which do not lead to purposeful actions, as a result of unresolved dilemmas. So, these vignettes offer a road map to contribute to our understanding of why teachers take certain stands and actions in responding to curriculum reforms.

Chapter 9 was concerned with underlying mechanisms, to explain the mediatory role of reflexivity and networks in teachers' curriculum making practices. In summary, there is an ongoing and multi-directional interplay between internal and external conversations in the context of curriculum making. This interplay is mediated by personal, structural and cultural factors, and is underlined by three main generative mechanisms: modes of reflexivity, relational goods and evils, and the national and organizational context. I offered an analytical and conceptual framework adapted from Chalari (2007, 2017) to systematically analyse the interplay. I had discussed modes of reflexivity and relational goods and evils previously, so the final mechanism identified was national and organizational context. It appeared that faculty departments, as a social structure, curriculum reform demands, and performativity culture were strong factors that had an impact on the

teachers' curriculum making practices. This finding suggests that if these mechanisms (akin to the position of the mirrors at certain angles to each other in kaleidoscopes) are addressed in policy, practice and research, there may be opportunities to decipher teachers' curriculum making practices better, as well as avenues into particular improvements.

Capturing the complex interplay was a challenging and interpretive act, and I have wondered about different ways of exploring this interplay for exploring teachers' curriculum making practices better. My intellectual wonderings and reflections on the findings, as well as my passion for agentic curriculum making practices, opened up the following questions:

- *How can the interplay between internal and external conversations be investigated longitudinally in different contexts to gain a more insightful understanding of teacher mediation of curriculum making?*
- *How do teachers' professional life stories interact with the national and organizational context to develop a certain mode of reflexivity?*
- *How can teachers develop their reflexivity and networks so that they can challenge the performativity culture, traditional ways of organizing schools and also curriculum reform demands to achieve their modus vivendi?*

10.2. Original contributions

The 'so what?' question has been a constant one during my doctoral research, across annual reviews, supervisory meetings and conferences. As with all other stages of doctoral research, forming plausible and meaningful answers to this question was not a straightforward process. I shall address this question by outlining the original contributions of my research, which is followed by implications and suggestions. I shall then link them back to the questions outlined in the previous sections. I shall commence with the three areas where I believe original contributions to the knowledge of this thesis lie: analytical (and practical), theoretical, and methodological contributions.

10.2.1. Analytical (and practical) contributions

The key analytical contributions of my research are as follows: a critical realist analysis of the teachers' curriculum making practices by combining reflexivity and network data; the developing of a curriculum mediation framework; and offering guidance on teacher education and development. Critical realism has been empirically and theoretically considered in curriculum research, albeit within a limited scope (Manyukhina & Wyse, 2019; Priestley, 2011; Withell &

Haigh, 2018). Moreover, although there is a call to utilize critical realism with network data (Bellotti, 2015; Buch-Hansen, 2014), the studies are newly emerging (e.g., Ferguson (2020) and, to the best of my knowledge, there is no such existing research in the context of curriculum research). There appear to be, in fact, very limited examples and detailed explanations of how a critical realist approach can be applied to network research in education. My research offers a contribution through its analytical and practical aspects of employing a critical realist approach and provides detailed information on research design, data generation and analysis, as well as presenting findings.

As for combining reflexivity and network data, this concurs with Buch-Hansen's (2014) assertion that it is possible to combine a critical realist approach with social network research, and he suggests that there is a need to supplement this with other methods. Matthews (2017), who utilized Archer's (2007) reflexivity, made a similar call. As a qualitative ego-network approach focuses on the individual, in my research, reflexivity analysis provided a rich and extensive complementary tool to obtain a deeper understanding of structural and cultural features of the networks and how individuals mediated their actions accordingly. This is one of the significant contributions of my research; offering an analytical framework to empirically analyse the relationship between reflexivity and networks in the context of curriculum making.

The curriculum mediation framework, adapted from Chalari (2007), offers an insightful contribution to investigate teachers' curriculum making. Given that the key constructs that I have examined (e.g., morphogenesis, emergent properties) still need to be empirically examined and developed in the context of curriculum research, applying these analytical tools and processes will expand our understanding of why and how teachers navigate their ways through curriculum making in different ways. My research underscores the importance of discussing different modes of reflexivity and network dynamics in relation to each other, and proposes ways to accomplish this in teacher education and development. For example, an ego-network approach can be utilized before a teacher professional learning initiative is implemented (e.g., school-based curriculum development practice) to identify opportunities (e.g., access to expertise) and gaps (e.g., lack of curriculum design expertise), which can be monitored during and after the programme's implementation to shape and ultimately examine the effectiveness of the programme.

10.2.2. Theoretical contributions

My research offers a contribution to the theory of reflexivity, ego-network, and curriculum theory by combining and applying them in the context of teachers' curriculum making in Scotland and

Wales. The findings of my research resonate with previous studies (e.g., Osborn et al., 1997; Sivesind, Bachmann, & Afsar, 2013, Taylor, 2013; Tronsmo, 2019), which found that teachers effectively translate, transform or sometimes subvert curriculum making practices. What this study adds to the existing and currently emerging research about curriculum making is that it identifies three portable generative mechanisms that will enhance our understanding of the mediation of teachers' curriculum making. As outlined in Chapter 9, these involve a nuanced understanding of teachers' reflexivity and what teachers' formal and informal relationships hold and how they are subjectively perceived, as well as how contextual factors, particularly meso curriculum support, are the underlying mechanisms that influence the mediation of curriculum making by teachers. Moreover, Archer's (2003, 2007, 2012) theory of reflexivity, by drawing from a relational approach to ego-networks, provided powerful theoretical descriptions to enable a much greater understanding of how this mediation happens and called for a more dynamic and contextual understanding of exhibiting modes of reflexivity.

As discussed in Chapter 3, curriculum research has attracted much recent attention, with more nuanced discussions on curricular questions, such as where it is made and by whom (Priestley et al., 2021). My research offers both theoretical and empirical contributions to enhance our understanding of micro curriculum making and the role of reflexivity and networks in those practices.

10.2.3. Methodological contributions

I have used a mixture of methods, including internal conversation interview, reflective diary generation, observations, and qualitative ego-network interviews. These methods complemented each other to generate vignettes for understanding curriculum making by teachers at a great depth and breadth. To the best of my knowledge, a combination of internal conversation interviews and a qualitative ego-network interview has not been applied in educational research until now. Hence, my research is the first time that they have been utilized together within the context of teachers' curriculum making. My work proposes that the combination of these two methods have a strong methodological potential to illuminate the underlying mechanisms of the mediation of curriculum making by teachers.

10.3. Limitations of the study

Although this study offers original contributions to existing knowledge, it is not without its limitations. Reflections on the methodological limitations are discussed in detail in Chapter 4. In

this section, I shall provide an overall discussion on the limitations of my research, focusing particularly on the theoretical and empirical limitations.

First, the issue of generalization, which may be understood differently in different research paradigms, for example, transferability (Lincoln & Guba, 1985) needs to be addressed before setting out the limitations. There are mainly two ways of generalizing research findings: empirical and theoretical generalization (Danermark et al., 2002; Mason, 2002). The former, which refers to generalizing the findings of my research to a broader population of secondary school teachers in Scotland and Wales, was not sought here. Following a critical realist philosophy (Danermark et al., 2002; Mason, 2002), my research claims theoretical generalization by providing rich and extensive theoretical descriptions and propositions, and offers an analytical framework to understand curriculum making in different spatio-temporal contexts.

Theoretical generalization raises the question of what the findings of my research may mean in different contexts and whether the findings, especially the underlying generative mechanisms, apply or are portable to different contexts. Extensive and rich explanations of personal and contextual characteristics for the mechanisms to manifest themselves, provide a strong argument that the mechanisms have the portability, or can be transferred to wider contexts to understand teacher mediation within the context of curriculum making. Following a critical realist approach, this thesis argued that events may occur if the aforementioned emergent properties interact in distinctive ways in specific conditions. Hence, readers should evaluate the context to which the findings can be transferred, in light of these extensive theoretical and empirical descriptions. Thus, because the mechanisms are contingent upon specific social environments, they may result in different social practices in different contexts (Bellotti, 2015). Nevertheless, this does not undermine their causal powers in mediating curriculum making, which could be transferred to other contexts to observe a range of social practices as they emerge.

10.4. Policy, practice and research implications and recommendations

In this section, I shall discuss the implications of the findings of my research for policy, practice and research by focusing on the three main themes: teacher education and development; meso curriculum support; and curriculum research and policy. Here, I formulate seven suggestions in total, considering the aforementioned questions raised from my findings, which I shall unpack under each theme.

10.4.1. Teacher education and development

My research concerned micro curriculum making activities by looking at teachers as micro actors. This section will outline the implications of my research for teacher education and development; as Stenhouse (1975) suggests, curriculum research should be a basis on which teachers build and develop their teaching.

> **Suggestion 1.** The link between teachers' reflexivity and curriculum making should be strengthened in teacher education and development programmes, through nuanced discussions on different modes of reflexivity and underlining the importance of contextual influence in exercising different modes.

This thesis illustrates that different forms of reflexivity condition teachers in engaging with curriculum making practices in different ways. Because other research shows that reflexivity plays a significant role in shaping a professional identity and growth (Westaway, 2019), this implies a rethinking of teacher education programmes in light of this. Additionally, there needs to be more systematic initiatives, to support teachers' ongoing professional development, interrupt habitual thinking and doing (e.g., Priestley & Drew, 2019), and offer some constructive and critical exercising of reflexivity. This suggestion addresses the importance of equipping teachers with some foundational knowledge and understanding of the role of reflexivity in curriculum making practices. Moreover, the modes of reflexivity, as forms or reasoning and acting upon, can enhance teachers' repertoires through, for example, delving into their concerns, discourses, narrative, and lines of reasoning to gain new insights and make new connections that they might not have considered. Moreover, further reflections on the modes of reflexivity might make the mediation process more transparent and manageable. Ultimately, the more prospective or practising teachers are aware of the distinctive ways of exhibiting reflexivity, the better they can be positioned and supported to navigate their actions effectively. For example, Ryan (2014) argues that engaging with a discussion around the modes of reflexivity may encourage teachers to find ways to manage and improve their practice. As such, if a teacher is aware of the conditions that disable his/her actions, there is a higher possibility of shaping the situation to achieve her/his agency and move towards a more satisfactory mode of reflexivity. This can foster teacher agency and result in sustainable and effective curriculum making practices. By building upon the findings of my research, future studies should look into the ways that foster enhanced reflexivity. Teachers' experiences, life stories, expertise and current practices should be considered as starting points for this. Thus, exploring teachers' reflexivity is essential to move forward to more meaningful and fit-for-purpose support mechanisms in teacher education and development programmes.

Suggestion 2. The relational dimension of formal and informal connections, the ways in which teachers access and benefit from expertise, as well as creating, extending and sustaining relational goods, should be one of the areas of focus in teacher education and development programmes to offer 'safe' and nurturing places for teachers to discuss curriculum making.

This thesis demonstrates a strong mediator role of the nature, dynamics and subjective meanings attached to teachers' networks in curriculum making practices. The majority of connections were made with in-school ties, which identifies a need to pay closer attention to the different dimensions of in-school networks to enhance network opportunities. Furthermore, it indicates a need to consider ways of incorporating beyond-school ties, especially at certain stages of curriculum reform. Reflecting on relational goods and evils alongside enablers and constraints in the eight curriculum making networks, it is evident that there needs be at least a reconsideration of the formal organization of the school, and of the time and 'safe' spaces available to teachers to discuss curriculum and take innovative risks. It is also important that this implication is taken into consideration in the teacher education programmes as early career teachers often struggle to form purposeful networks as a newcomer within their schools (März & Kelchtermans, 2020). A detailed discussion about the alters, ties and the network in general can help to identify gaps and opportunities for more satisfactory and sustainable curriculum making practices. Ultimately, teachers need to achieve agency to initiate their curriculum making projects. One possible way is to mitigate the effect of the 'tick-box' exercises by strengthening their professional repertoire to argue against and justify their decisions. Hence, practising critical and constructive forms of reflexivity and benefiting from a range of expertise and relational goods in the networks are crucial in this respect.

10.4.2. Meso curriculum support

The suggestions presented above should be supported at different sites of curriculum making, perhaps most importantly, meso curriculum support. To this end, I offer three suggestions based on the empirical findings to shed light on and inform the current developments, particularly in Scotland and Wales. The implications and recommendations can be transferable to other contexts, while paying close attention to the social and cultural factors.

Suggestion 3. Meso curriculum making should be strengthened through purposive, research-informed, coherent and shared sense-making activities to facilitate curriculum making in schools by offering curriculum events and roles for teachers.

This suggestion is not new, although the findings of this thesis accorded with current ongoing calls in this field (Priestley et al., 2021). Shared sense-making at the individual and collective level, as well as coherent, justified and applicable curriculum policy/practice ideas, was of great importance for satisfactory and sustainable curriculum making practices for teachers. In some cases in my data, the teachers' networks, which comprised meso support through local curriculum advisers or experts, alongside partnerships with local authorities and universities, fulfilled a very important task of facilitating curriculum making. It was evident that such support could prompt certain modes of reflexivity which would transform the quality of curriculum work. In contrast, the absence of such support, especially at the early stages of curriculum reform, had the potential to trigger a fractured mode of reflexivity when teachers left the profession, unable to make meaning of curriculum ideas and respond to the demands of curriculum reform. Thus, it is imperative to strengthen the position and quality of meso curriculum support as a strong mediatory mechanism between macro and micro curriculum activities. There are already some initiatives in place in both countries, such as the Regional Improvement Collaboratives in Scotland, and the Regional Consortia in Wales. The content and the means of these support mechanisms are equally important.

> **Suggestion 4.** Meso curriculum support should enhance existing relational goods and offer spaces and opportunities to develop these through, for example, coaching/mentoring opportunities. This should be within a diverse composition of networks to address different needs and concerns emerging for various reasons including practising different modes of reflexivity.

Most of the teachers raised the point about 'reinventing the wheel' during curriculum making to address the inefficient use of teachers' capacity in the system. Hence, meso curriculum support should first identify already developed human and material resources, and build and extend these to prevent superficial adaptation of the curriculum. Network research proposes a strong methodological tool to accomplish this. I have discussed in Chapter 9 the extent and importance of relational goods in nurturing curriculum making practices in which meso curriculum support could play a crucial role. My research also showed that the composition of the teachers' networks differ, from involving colleagues only to communicating mostly with academics, and in their distinctive ways of projecting actions based on their ultimate concerns. Thus, these findings should be considered when organizing meso curriculum activities to construct meaningful relationships with teachers and offer fit-for-purpose assistance. Another important factor is acknowledging and addressing a variety of needs, concerns and actions that emerge from practising different modes

of reflexivity. That said, it is neither possible nor feasible to address all the individuals' needs and fulfil all of their expectations. However, there is still a strong need to be cognizant of the roots of why different concerns and actions emerge and develop to either prevent or cultivate depending on the teachers' sense of engagement and agency over curriculum making work. One thing that meso curriculum support can do is to assist schools to develop ways to provide incentives, assign curriculum-related roles, and celebrate meaningful curriculum-related achievements, instead of solely praising or prioritising the performative achievements through examination results. This would address some of the needs that the autonomous mode of reflexivity brings about. For practising the communicative mode, meso curriculum support can aim to offer diverse connections from different schools and stakeholders, so that teachers have opportunities to develop ways of engaging with novel connections and can interrupt and expand their limited network connections. As for addressing the concerns and needs that emerge from exercising the meta-reflexivity mode, there needs to be a secure and supportive climate for teachers to voice their ideas, and a mechanism that would take their critical reflections into account. Finally, multi-agency support, including coaching and mentoring, and communicating consistent and practical and achievable aims, might help some teachers in exhibiting fractured reflexivity to initiate teachers' projects. This captures the complexity of curriculum change in terms of addressing and fulfilling the needs of teachers, while ensuring that social circumstances accord with this process.

10.4.3. Curriculum research and policy

Curriculum research, as a strong mechanism to enhance and strengthen the communication between different stakeholders, should inform policy and decision-making processes. Hence, future curriculum making research is crucial to enhance our knowledge of the multifaceted and complex nature of curriculum making. Drawing from the findings of my research, I offer three suggestions for future research and policy.

> **Suggestion 5.** There is a need for further investigation into the changing nature of teachers' understanding and operationalization of curriculum to map out what induces a more holistic understanding of curriculum making and how this might develop.

By applying reflexivity and ego-network analysis, this thesis argued that the way in which the teachers conceptualize curriculum, and their particular curriculum orientations, influenced the nature and dynamics of their internal and external conversations and vice versa. Hence, this relationality needs further investigation to shed light on the current developments in curriculum

research. Teachers' life stories and the dynamic nature of their curriculum orientations might be meaningful entry points.

> **Suggestion 6.** Longitudinal research on teachers' networks, to monitor how different ties are formed, actualised and maintained, is crucial to identify limitations and offer opportunities to shape teacher education and development programmes. Additionally, it would be interesting to see alters' account of the teachers, which would give a different perspective of relationality.

My research provided evidence of the presence and absence of curriculum making ties that influenced how the teachers' perceive curriculum and act upon curriculum reforms. Suggestion 6, therefore, concerns different actors at different sites of curriculum making, including policy actors, to invest in such longitudinal projects to monitor the dynamics of networks and how curriculum making is understood and being made in relation to those. This might also facilitate identifying potential teacher retention causes, which is an issue in Scotland and Wales (e.g., Scottish Education Council, 2018; NFER, 2020). This would then allow policy makers to address these concerns and develop fit-for-purpose programmes or initiatives to retain teachers in the profession through cultivating the opportunities that teachers' networks offer.

> **Suggestion 7.** The curriculum mediation framework can be applied in different contexts using a larger sample with diverse subject backgrounds and education sectors to observe how teacher mediation occurs across contexts. This will enhance our understanding of curriculum making as social and relational practice.

By adapting Chalari's (2007, 2017) mediation theory and building upon the theoretical stances of my research combined with empirical findings, I developed a curriculum mediation framework to offer an analytical and conceptual tool to make the mediation process empirically possible to investigate. This should be complemented with future research to understand the complex and relational nature of curriculum making better. The framework can be used in research with teachers from different subject backgrounds, as there is some evidence that secondary school teachers with different subject backgrounds establish distinctive practices, for example, when it comes to advice- and information-seeking (Spillane & Hopkins, 2013). This would also enable the development of empirically and theoretically informed curriculum theory and practice development across sectors and subject backgrounds. As such, my ongoing development as a researcher and teacher educator will involve addressing these suggestions and future questions about curriculum research and theory, which I shall explain in the final section.

Looking forward – The imagining of future possibilities

Similar to the beginning of this thesis, I shall end with the same analogy, the kaleidoscope, with a different purpose this time – to look for future possibilities for different 'I's' that are embodied in myself to take the findings of my research and my professional learning forward.

First, **'I as a researcher'** have been mulling over the ways in which my findings can be made accessible to teachers to make changes in their curriculum making practice. During my research, I have learned that there is still a long way from theory and research to teachers' curriculum making practices. The first thing I plan to do is revisit my participants to share these findings with them and to ask what would happen if these findings were translated to change their practice in some ways. What would they do differently? What would they do the same? In fact, I often found myself having imaginary conversations with my participants to communicate my findings in an accessible way. It would have been such an interesting opportunity to engage in a dialogue with them to investigate their modes of reflexivity together – an imagination of a future research possibility. Moreover, I would like to explore more of the dynamic nature of modes of reflexivity and investigate how teachers move in between the modes so that more productive, effective sustainable practices can emerge. As such, longitudinal research, where the focus is on reflexivity with relationality in mind, and where participants act as co-researchers, would enhance our understanding of the mediatory role of reflexivity. Additionally, I am curious to explore how Archer's mental activities and different modes of reflexivity can be used as conceptual and methodological tools during curriculum making in schools. It was a surprising reaction from Ashley regarding the resemblance between her curriculum making processes and Archer's ten mental activities. It would be illuminating to see the extent to which these can enhance teachers' practices.

One significant element of learning as a researcher that I take from my research project is that, although structural and cultural factors are still crucial to investigate, looking at individual teachers more closely in a relational manner is essential for understanding how they mediate their way through the complexities. I now have a stronger understanding of how these factors interact, due to the thinking and questioning I enacted with the theoretical tools I employed. Moreover, making sense of critical realism, which has taken a great deal of time and resulted in practising fractured modality at times, changed the way I understand the world in a broad sense. In particular, it has changed the types of questions I ask about education and also the particular things that my attention is drawn to. Returning to the tree diagram in the critical realism section (Figure 4.1, p.

82), I have developed a better understanding of the roots of what we think we observe and how we can investigate these mechanisms empirically.

Another future possibility regarding my researcher identity is communicating my findings of my research with the Scottish Government as a co-funder of my research. Because meso curriculum support emerged as one of the underlying reasons for the mediation of teachers' curriculum making, I intend to communicate these messages through formal reports and meetings. I have already been invited to deliver a workshop to discuss some of the key messages from my network article with the Teacher Professional Learning and Leadership group within the Learning Directorate. I shall particularly draw some attention to the impact of examination and performativity culture in teachers' curriculum making networks. Additionally, I would like to investigate meso curriculum making through working with meso actors by utilizing network and reflexivity as methodological tools to mobilize productive relational assets. One thing I learned during my research is the extent to which fragmentation and a lack of communication between stakeholders can have a direct impact teachers' sense-making processes, motivations, and therefore, their curriculum making practices.

The final thoughts from my researcher 'I' are about exploring the possibility of curriculum making network typologies and affective dimensions of networks in a longitudinal large-scale mixed methods network research. I have learned the importance of negative and challenging ties in the ways in which teachers navigate their practice and how dynamic these are, especially at different stages of a school year. Moreover, I am interested in working with teachers to delve into the dynamics of their own networks to identify enablers and potential constraints to enhance the opportunities their network could offer.

'I as a teacher educator', after January 2020, have been dwelling on my own curriculum making practices and how to address some of the suggestions I stated in the previous sections, in initial teacher education programmes. I noticed that I have paid much attention to the rationale of the modules, students' learning progression journeys, assessment opportunities and student voice to have coherent and meaningful learning opportunities for student teachers. Addressing my suggestions, I introduced a reflective e-portfolio element into the modules that I coordinate about pedagogy. This is a good start for nurturing reflexivity and foster an awareness of the importance of that process for ongoing professional development. I plan to bring modes of reflexivity as a framework to discuss student teachers' experiences during placement to explore how they mediate their actions. Moreover, I would like to explore their network in a longitudinal manner

and explore how these change throughout different stages, and how they ultimately shape their understanding of curriculum and their emerging curriculum making orientations and practices.

'I as a Mathematics teacher' wished to have at least a few mathematics teachers as participants, as I feel my own sense-making process would have been much smoother. Nevertheless, I have reflected on how such practices may emerge in mathematics classrooms and take a few lessons for myself. For example, throughout my own curriculum making practices, the social justice aspect of teaching mathematics emerged as one of the 'big ideas' of teaching mathematics. I wish there were a post where I could both teach mathematics in schools and work as a curriculum researcher at the University, which would be a dream job for me. Along similar lines, I would like to conclude this thesis with a quotation from Paulo Freire (1998), which encapsulates my onward journey imaginings sufficiently.

> Once again, there is no such thing as teaching without research and research without teaching. One inhabits the body of the other. As I teach, I continue to search and re-search. I teach because I search, because I question, and because I submit myself to questioning. I research because I notice things, take cognizance of them. And in so doing, I intervene. And intervening, I educate and educate myself. I do research so as to know what I do not yet know and to communicate and proclaim what I discover. (p. 35)

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Appendices

Appendix 1

Glossary of the key concepts and conceptual framework for data analysis

Related domain	Terminology

External conversations (They are adapted from Perry et al.'s (2018) and Bellotti's (2015) work)	**External conversation:** Communication with others which are subjectively defined to be related to curriculum making.
	
	Ego: Focal actors – refers to the teachers in this study.
	
	Alter: Social actors that ego has connections to.
	
	Ties: Connections between ego and alters or amongst alters.
	
	Ego-network: A network which centres on the ego and consists of alters connected to the ego, ties between them and amongst alters.
	
	Node: Teachers and their alters are represented as nodes in the visualisations.
	
	Homophily: Similarity playing role in forming connections.
	
	Heterophily: Difference playing role in forming connections.
	
	Composition of the network: Ego-network consisting of alters possessing a variety of attributes.
	
	Quality of the network: It refers to how the relationships are perceived in relation the degree of strength and trust, frequency of communication and emotional closeness.
	
	Content of the network: The things that flow in the network.
	
	Structure of the network: The measurements regarding how the networks are structured.
	
	    Density: It refers to degree of connectedness of the alters in the network.
	
	    Effect size: It indicates the number of non-redundant alters ego is connected, or the number of different pockets of information.
	
	    Ego-betweenness: It indicates the position of ego to show the extent to which alters are dependent on the ego to reach other alters.
	
	Influence of the network: The degree of influence of alters in teachers' sense making, decision making and classroom practice.

Internal conversations (This terminology is drawn from Archer's work (Archer, 2003, 2007, 2012))	**Internal conversation:** Inner dialogues with the self where reflexivity is exercised. **Reflexivity:** 'The regular exercise of the mental ability, shared by all normal people, to consider themselves in relation to their social contexts and vice versa' (2007, p. 4) **Different modes of reflexivity:** Different forms of reflexivity that indicate distinctive interplays between structural, cultural and individual factors. **Communicative reflexivity:** This mode initiates internal conversations which required to be confirmed through external conversations.

	Autonomous reflexivity: This mode brings about self-sufficient inner dialogues which usually do not require to be supplemented by external conversations unless it is related to requisite expertise. **Meta-reflexivity:** This mode is depicted as being self-critical of one's own actions and thoughts. **Fractured reflexivity:** This mode manifests in inconclusive internal conversations which intensify distress. **Dissatisfaction/satisfaction:** When there is an inner conflict in between inner concerns and the outer social environment, this would result in dissatisfaction; whereas if there is a complementary or indifference, this would result in satisfaction. **Modus vivendi:** Establishing a sustainable and satisfying sense of success in curriculum making as perceived by individuals
Critical realism (Drawing from Archer, 1995, Bhaskar, 1998; Danermark et al., 2002; Elder-Vass, 2007; Sayer, 2000; O'Mahoney & Vincent, 2014	**Emergent properties:** Relational features that have causal powers (e.g. enabling) to work in specific ways in relation to other things. There are personal, structural and cultural emergent properties. **Morphogenesis/Morphostatis:** The interaction of the emergent factors, influences if there is a change (morphogenesis) or a non-change (morphostasis) in the ways that curriculum is mediated by teachers. A change may occur at the structural, cultural and personal level or as a combination of these by transforming or elaborating the pertaining properties (Archer, 1995). In the case of non-change, we may see the reproduction of social circumstances. **Domains of reality:** Reality has 3 domains: the empirical (can be observed); the actual (not always observed) and the real domain (cannot be observed but exerts influences on the empirical and actual domain). **Fallibility and subjectivity:** Our knowledge of the world remains contingent and situated. **Generative mechanisms:** These mechanisms are unobservable and unseen at the empirical level but they exhibit powers to create the events we observed (Bhaskar, 1998). **Abduction and Retroduction:** The two distinctive data analysis steps in a critical realist research to identify generative mechanisms.

Appendix 2

Advertisement of my research

Volunteer secondary school teachers needed!

Policy To Practice: Curriculum Making in Scotland And Wales

What is the study about?

The aims of the study are to better understand how teachers conceptualise curriculum and how their internal and external conversations mediate curriculum making practices.

Who can take part?

All secondary school teachers in Scotland and Wales are welcome, more particularly STEM subject teachers.

What is involved?

It involves two interviews (40 min – 1 hour), two observations (2 school days) at the beginning and at the end of the term, one questionnaire about internal conversation (10 min) and one network survey (30 min). During a term, I would also need you to produce a reflective diary at frequent intervals which will be negotiated at the first interview. I will keep contact with you during that term.

How do you volunteer?

You can volunteer by e-mailing sinem.hizliaalkan1@stir.ac.uk. I am happy to provide more details about the study and the procedures.

UNIVERSITY of STIRLING · 50 YEARS · The Scottish Government

Sinem Hizli Alkan
PhD student, University of Stirling

Appendix 3

Information booklet for headteachers

UNIVERSITY of STIRLING

The Scottish Government

Policy to Practice: Curriculum Making in Scotland and Wales

Information Sheet (Head Teachers)

About me

My name is Sinem, and I am a doctoral student at University of Stirling. Within my research, I am looking at curriculum making practices and how teachers mediate these processes.

About the study

There are two main aims of this study. These are to better understand: how teachers conceptualise curriculum and related concepts; and how curriculum making practices are mediated, focusing on internal and external conversations of teachers. My project is supervised by Professor Mark Priestley and Dr. Valerie Drew and is co-funded by the Scottish Government and the University of Stirling.

A teacher in your school has volunteered to take part in this research, and the relevant local authority has been approached to get a permission to conduct the research.

What will I expect from volunteer teachers?

Within my research, I shall need to undertake two days of observations and two interviews with a volunteer teacher working in your school. The first observation will take place in your school where I aim to familiarise myself with the school context during a full school day. I will be mainly shadowing the participant teacher. I might request access to the teachers' classroom and attendance at staff meetings, if it is related to the curriculum. The second observation will be in the classroom context during a full day. I will focus on the teacher's actions and not actively take part in the classroom interactions. I anticipate to have the first observation and interview at the beginning of the Autumn 2018 term and the second one would be when this term ends. Interviews will be planned in teachers' free time. Exact dates will ultimately depend on teacher's and school's agenda. Hence, I need your permission to be able to get into the school during these days on account of teachers and students.

You need to know that this involvement is voluntary and teachers do not have to take part in it. If they agree to take part now and do not wish to continue later, they have right to withdraw anytime during the study.

How do I use the data?

The data will be used in my doctoral thesis. Findings may be also published as academic papers and conference presentations. Since my PhD is partly funded by the Scottish Government, I will share anonymised summaries of my findings with them, to shed light on current reforms. The data will be kept in secure storage for access by me and my supervisors. Qualitative data which will be shared with a transcription service will be secured via a confidentiality agreement the University of Stirling has.

How can your school take part in it?

If you would give permission for me to access your school, I would be grateful if you sign and return the declaration form to me

If you want to contact me:

Sinem Hizli Alkan

e-mail: sinem.hizliaalkan1@stir.ac.uk

Phone: 01786 466307 (You can ask for Sinem)

3S28 Colin Bell Building, University of Stirling

Stirling UK, FK9 4LA

If you have any more concerns about the study or me or further questions about it, you can also contact my first supervisor:

Prof Mark Priestley

e-mail: m.r.priestley@stir.ac.uk

Phone: 01786 466272

4S14, University of Stirling, Stirling UK, FK9 4LA

Thanks for reading this!

Declaration for Permission to Access

I have been informed about the research and what it entails. I understand that the data gained will be anonymised and the names' will be removed from the materials used in the research.

I understand that the researcher needs to spend 2 full school days for the observations and I declare to give permission to access our school.

Name:

Signature:

Date:

(Please sign and return this to the researcher)

e-mail: sinem.hizliaalkan1@stir.ac.uk

3S28 Colin Bell Building, University of Stirling

Stirling UK, FK9 4LA

Appendix 4

Ethical approval from GUEP for pilot study

UNIVERSITY of STIRLING

Sinem Hizli Alkan
University of Stirling
Stirling
FK9 4LA

General University Ethics Panel (GUEP)
University of Stirling
Stirling
FK9 4LA
Scotland UK

E: GUEP@stir.ac.uk

sinem.hizliaalkan1@stir.ac.uk

16 January 2018

Dear Sinem

Re: Ethics Application: *Teacher mediation in curriculum making* – GUEP322

Thank you for your submission of the above to the General University Ethics Panel.

I am pleased to confirm that GUEP has approved your application, and you can now proceed with your research.

Please ensure that your research complies with Stirling University policy on storage of research data http://www.stir.ac.uk/is/researchers/data/afteryourresearch/

Please note that should any of your proposal change, a further submission (amendment) to GUEP will be necessary. If you have any further queries, please do not hesitate to contact the Committee by email to guep@stir.ac.uk.

Yours sincerely,

p.p. On behalf of GUEP
Professor Helen Cheyne
Deputy Chair of GUEP

Appendix 5

Ethical approval from GUEP for main study

UNIVERSITY of STIRLING

General University Ethics Panel (GUEP)
University of Stirling
Stirling
FK9 4LA
Scotland UK

E: GUEP@stir.ac.uk

Sinem Hizli Alkan
Faculty of Social Sciences
University of Stirling
FK9 4LA

13 June 2018

Dear Sinem

Ethics Application: Policy to practice: curriculum making in Scotland and Wales – GUEP 414

Thank you for making the requested revisions to your submission of the above to the General University Ethics Panel. I am pleased to confirm that your application now has ethical approval.

Please note that should any of your proposal change, a further submission (amendment) to GUEP will be necessary.

Please ensure that your research complies with Stirling University policy on storage of research data which is available at:
https://www.stir.ac.uk/about/faculties-and-services/information-services-and-library/researchers/research-data/before-you-start-your-research/our-policy/

If you have not already done so, I would also strongly encourage you to complete the Research Integrity training which is available at: https://canvas.stir.ac.uk/enroll/CJ43KW

If you have any further queries, please do not hesitate to contact the Committee by email to guep@stir.ac.uk.

Good luck with your research.

Yours sincerely,

p.p. On behalf of GUEP
Dr William Munro
Deputy Chair of GUEP

Teacher Information Booklet

IN A NUTSHELL

Volunteer secondary school teachers needed!

Policy To Practice: Curriculum Making in Scotland And Wales

What is the study about?

The aims of the study are to better understand how teachers conceptualise curriculum and how their internal and external conversations mediate curriculum making practices.

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All secondary school teachers in Scotland and Wales are welcome, more particularly STEM subject teachers.

What is involved?

It involves two interviews (40 min – 1 hour), two observations (2 school days) at the beginning and at the end of the term, one questionnaire about internal conversation (10 min) and one network survey (30 min). During a term, I would also need you to produce a reflective diary at frequent intervals which will be negotiated at the first interview. I will keep contact with you during that term.

How do you volunteer?

You can volunteer by e-mailing sinem.hizliaalkan1@stir.ac.uk. I am happy to provide more details about the study and the procedures.

UNIVERSITY of STIRLING

The Scottish Government

Sinem Hizli Alkan
PhD student, University of Stirling

Policy to Practice: Curriculum Making in Scotland and Wales

Participant Information Sheet (Teachers)

About me

My name is Sinem, and I am a doctoral student at University of Stirling. Within my research, I am looking at curriculum making practices and how teachers mediate these processes.

About the study

There are two main aims of this study: To better understand how teachers conceptualise curriculum and related concepts; and how curriculum making practices are mediated focusing on internal and external conversations of teachers. My project is supervised by Professor Mark Priestley and Dr. Valerie Drew and is co-funded by the Scottish Government and the University of Stirling.

What will I expect from you?

After having permission from local authority and your head teacher, I shall visit your school. This research involves four different data collection methods: two interviews (40 min – 1 hour), two observations (2 school days) at the beginning and at the end of the term, one questionnaire about internal conversation (10 min) and one network survey (30 min) as well as a reflective diary.

Each observation will take a full school day. Through the first observation in your school, I would like to familiarise myself with the school context and to observe issues that may be subsequently discussed at the interviews with you. At the first interview, I plan to talk about your professional profile. During this interview, there is a reflexivity questionnaire that I will need you to fill in. The second interview will focus on mainly internal and external conversations on curriculum making. Network data, relating to whom you discuss curriculum with or turn for advice to, for example, will be collected in the second interview. Additionally, between the two interviews during the autumn term, I will need you to write at reflective diaries at critical points and at frequent intervals, which will be negotiated at the first interview. I will keep contact with you during that term.

What do you need to know?

You need to know that this involvement is voluntary and you do not have to take part in it. If you agree to take part now and do not wish to continue later, you have right to withdraw anytime during the study. This research would potentially contribute to your own continuing professional development and sense-making process.

I would like to audio-record the interviews. Audio recordings will be kept in a password protected computer and will be destroyed after finalising the research project. Your consent forms and all the data I obtained from you will be kept separately and be destroyed after 10 years, according to the University of Stirling data management policies. All adequate precautions will be taken to ensure confidentiality, anonymity and non-traceability. You will be anonymised in the research and its publications. It is also noted that this project has been ethically approved via the University of Stirling (General University Ethics Panel).

How do I use the data?

The data you will provide will be used in my doctoral thesis. Findings may be also published as academic papers and conference presentations. Since my PhD is partly funded by the Scottish Government, I will share anonymised summaries of my findings with them, to shed light on current reforms. The data will be kept in secure storage for access by me and my supervisors.

How can you take part in it?

The only thing you do is to sign a consent form and send it to me via a-mail to be able to join the discussion. If you do not have this, then please email me for a copy. Please feel free to ask any questions.

If you want to contact me:

Sinem Hizli Alkan

e-mail: sinem.hizliaalkan1@stir.ac.uk

Phone: 01786 466307 (You can ask for Sinem)

3S28 Colin Bell Building, University of Stirling

Stirling UK, FK9 4LA

If you have any more concerns about the study or me or further questions about it, you can also contact my first supervisor:

Prof Mark Priestley

e-mail: m.r.priestley@stir.ac.uk

Phone: 01786 466272

4S14, University of Stirling, Stirling UK, FK9 4LA

What now?

If you agree to participate, please read the consent form and send it to me with your signature.

Thanks for reading this!

CONSENT FORM

Thank you for agreeing to participate in this study. By consenting to take part in the study:

Please initial

1. I have read and understood the information sheet and I have been given the chance to ask questions about the study.	
2. I know that my participation is voluntary, and I have right to withdraw any time of the study without giving a reason, and without any penalty. I should inform researcher via e-mail whether I am happy if the researcher uses the data obtained up to that point.	
3. I understand that all information I provide will be kept confidential.	
4. In case of an issue or disclosure of information which potentially put participants at risk or may reveal harm to someone, the researcher may need to breach confidentially agreement.	
5. I give permission to the researcher to have my audio or written reflective diaries.	
6. While it is not possible to completely guarantee anonymity of participants, reasonable steps will be taken to ensure non-traceability. Network data will be anonymised (to whom you go for information, advice, support about curriculum).	
7. I agree to provide all the data requested in the information sheet and give permission to the researcher to take notes during her observations.	
8. I understand that researcher will work with a transcription service which the University of Stirling has used before and has confidentiality agreement.	
9. I give permission to the researcher to share the data with her supervisors.	
10. I understand that I will be anonymised in the research and any published work and give permission to the researcher to use anonymised quotations from my data.	
11. I understand that anonymised findings of the research will be shared with the funder, Scottish Government.	
12. Overall, I agree to take part in this study	

Name of Participant: Signature:

Date:

Name of Researcher: Signature:

Date:

Appendix 7

Interviewee:

School:

Date:

1. **Could you please tell me about yourself and your role in this school?**
- Years of experience
- Subject area
- Prior experiences
- Main Purposes of teaching that subject
- Conceptualisation of the curriculum
- Attitudes towards the curriculum
- Change in practice after CfE (biggest change, positive, negative)
- Curriculum making
2. **How would you describe this school as you experience it?**
- Ethos of the school
- Internal and external relations
- Support, resources, dialogue
- Internal and external pressures

3. **Reflective Diary**
Aim: To be able to know the immediate (as much as possible) reactions
To be able to explore how teachers have conversation with their selves

To discover the influential elements in decision making related to curriculum

To assist teachers that they will discover their thinking as well

Critical points:

When to write? I would prefer the soonest time after the incident happens as reflexive practice as 'an ongoing conversation about the experience whilst simultaneously living in the moment' (Hertz (1997, p. viii).

What to write?

1. What are my immediate thoughts and feelings? (appreciation, frustration, challenges, etc.)
2. How I experience this as a teacher? (beliefs, values, assumptions, etc.)
3. What is the most important concern for me now?
4. What are my priorities?
5. How I do decide what to do?
6. Why do I decide that action but not the other?
7. Any thoughts for the future?
8. Any thoughts and feelings which are not answer for the listed questions above (related to curriculum).

4. **Reflexivity Questionnaire (ICONI)**

Appendix 8

Internal Conversation Indicator (ICONI)

Some of us are aware that we are having a conversation with ourselves, silently in our heads. We might just call this 'thinking things over'. Is this the case for you?

YES ☐   NO ☐

ON THE WHOLE

	Strongly Agree					Strongly Disagree	
	7	6	5	4	3	2	1
1. I do daydream about winning the lottery.	☐	☐	☐	☐	☐	☐	☐
2. I think about work a great deal, even when I am away from it.	☐	☐	☐	☐	☐	☐	☐
3. I dwell long and hard on moral questions. ☐	☐	☐	☐	☐	☐	☐	
4. I blot difficulties out of my mind, rather than trying to think them through.	☐	☐	☐	☐	☐	☐	☐
5. My only reason for wanting to work is to be able to pay for the things that matter to me.	☐	☐	☐	☐	☐	☐	☐
6. Being decisive does not come easily to me.	☐	☐	☐	☐	☐	☐	☐
7. I try to live up to an ideal, even if it costs me a lot to do so.	☐	☐	☐	☐	☐	☐	☐
8. When I consider my problems, I just get overwhelmed by emotion. ☐	☐	☐	☐	☐	☐	☐	
9. So long as I know those I care about are OK, nothing else really matters to me at all.	☐	☐	☐	☐	☐	☐	☐
10. I just dither, because nothing I do can really make a difference to how things turn out.	☐	☐	☐	☐	☐	☐	☐
11. I'm dissatisfied with myself and my way of life - both could be better than they are.	☐	☐	☐	☐	☐	☐	☐
12. I know that I should play an active role in reducing social injustice.	☐	☐	☐	☐	☐	☐	☐
13. I feel helpless and powerless to deal with my problems, however hard I try to sort them out.	☐	☐	☐	☐	☐	☐	☐

Appendix 9

School observation

School:

Date:

1. School setting (E.g. Physical and social environment, size of the school, neighbourhood, kinds of facilities, etc.)
2. A few routines of the day (E.g. How the day starts, playtime activities, etc.)
3. Interactions in the school (E.g. student-student, student-teacher, teacher-head teacher, etc.)
4. Teachers' practices (E.g. meeting, planning, extracurricular activities, exam preparation, etc.)
5. Social conversations I have
6. School documents and connexion between their decisions

Classroom observation

Teacher:

School:

Date:

Lesson plan:

1. Classroom setting (E.g. physical and social environment, classroom size, diversity of students, seating arrangements etc.)
2. Teacher's practice (how teacher starts the lesson, instructional and management techniques, activities, etc. – descriptive perspective rather than evaluative)

Appendix 10

Interviewee:

School:

Date:

PART 1*

Some people are aware that quite often they were having a conversation with themselves, silently in their heads. Is it the case for you?

Please, have a look at these ten mental activities and comment on the ones you think you experience at any stage of curriculum making. Please, bear in mind that not everyone engages in self-talk about each item.

1. Planning (the day, the week or much longer ahead)
2. Rehearsing (practising what you will say or do)
3. Mulling-over (dwelling upon a problem, a situation or a relationship)
4. Deciding (debating what to do, what is for the best)
5. Re-living (some event, period or relationship)
6. Prioritising (working out what matters most, next, or at all to you)
7. Imagining (the future, including 'what would happen if')
8. Clarifying (sorting out what you think about some issue, person or problem)
9. Imaginary conversations (held with people known to you or whom you know of)
10. Budgeting (estimating whether or not you can afford to do something in terms of money, time or effort)

    Are there any other themes upon which your own internal conversations dwelt?

PART 2*

What are your current concerns about the curriculum which matter most to you at the moment?

Check-list:
1. Whether or not these had long been the subjects' concerns
2. Whether or not their listings of concerns were ones that dovetailed smoothly
3. Whether or not subjects spent time in thinking out exactly what they should do in the light of their concerns
4. Whether or not they saw (or had seen) anything in their backgrounds which was helpful or obstructive in relation to realising their concerns

Please look forward and discuss your future projects about the curriculum.

Appendix 11

Network Data Generation Instrument

Introduction:

One of the things I am interested in learning about is with whom you talk about curriculum making and how that makes a difference – or not- on your curriculum making (prompts: in terms of both sense and decision making – understanding and practice). While answering this, you may want to think about from whom you get new information, advice or resources both in school and external contacts. When you think of a person, please write the name down into post-it note and please place it in the target. As you see, you are in the middle of the target and the close you place the name the closer you feel them emotionally. Hence, it is not about geographical distance.

Shall we start? (Prompts: who else have you talked to? Anyone else inside the school? Outside of the school?)

Main question:

In this term, with whom have you talked about curriculum for advice, with a question or concern, or just to talk something through about curriculum making?

If it is getting more than 10, because of the time restrictions, I will start to talk about connections.
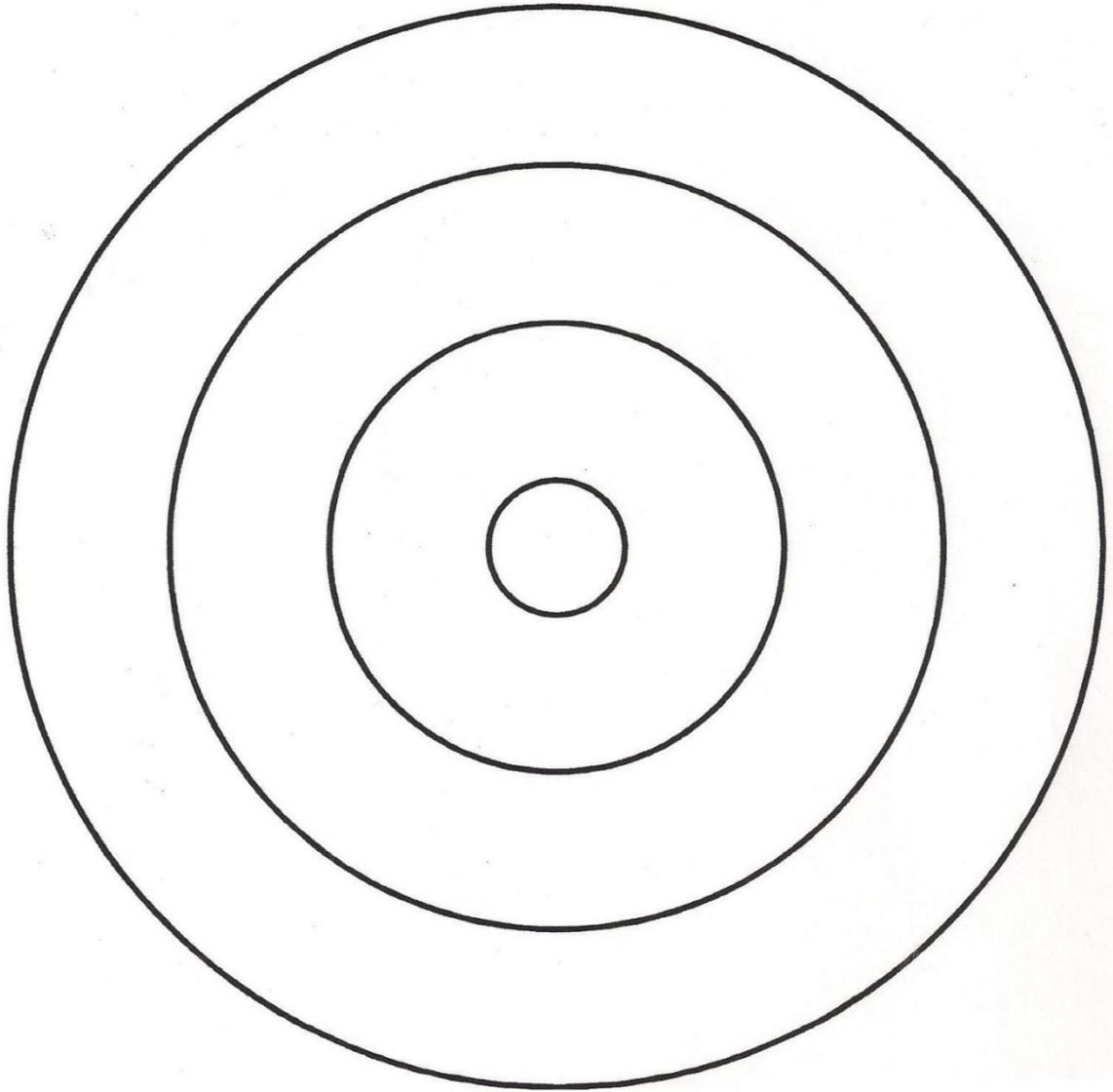
Pseudonym	1	2	3	4	5	6	7
Occupation							
Gender							
Years of experience in the job							
How do you know?							
How frequently have you talked with X about curriculum this term?							
What do you usually talk about?							
How strong is your connection between 0-10?							
How much do you trust them in terms of the nature of the connection? 0-10							
How much does it influence your sense-making process?(0-10)							
How much does it influence your decision-making? (0-10)							
How much does it influence your practice (what you do in the classroom? (0-10)							

Pseudonym	1	2	3	4	5	6	7
What about particularly going to somebody for advice?							
What kind of advice? Example							
What about particularly going to somebody for new information?							
What kind of new information? Example							
What about particularly going to somebody for resources?							
What kind of resource? Example							

NAME INTER-RELATOR

Do the two people know each other?

	2	3	4	5	6	7
1						
2	X					
3	X	X				
4	X	X	X			
5	X	X	X	X		
6	X	X	X	X	X	
7	X	X	X	X	X	X

Appendix 12

An illustrative example of network data preparation

Node-list	Edge-list		Adjaceny matrix			
	1A	1B	**Alters**	**Role**	**Gender**	**Years of experience**
1A	1A	1C	**1A**	1	2	3
1B	1A	1D	**1B**	1	1	3
1C	1A	1E	**1C**	1	1	1
1D	1A	1F	**1D**	6	1	2
1E	1A	1G	**1E**	1	1	5
1F	1B	1C	**1F**	1	1	4
1G	1B	1D	**1G**	2	2	4
1H	1B	1E	**1H**	1	1	4
1I	1B	1F	**1I**	1	1	2
1J	1B	1G	**1J**	1	2	3
	1C	1D				
	1C	1E				
	1C	1F				
	1C	1G				
	1D	1E				
	1D	1F				
	1D	1G				
	1E	1F				
	1E	1G				
	1F	1G				