University of Southampton

Faculty of Social Sciences

Southampton Education School

Teachers' Participation in Discussion Spaces at the Margins of the Workplace: Collaborative Professional Development Opportunities within Social Media

by

Katherine Erricker

Thesis for the degree of Doctor of Philosophy

March 2019

University of Southampton

Abstract

Faculty of Social Sciences

Southampton Education School

Thesis for the degree of Doctor of Philosophy

Teachers' Participation in Discussion Spaces at the Margins of the Workplace: Collaborative Professional Development Opportunities within Social Media

by

Katherine Erricker

For many teachers, professional development through participation in social media spaces has become a routine part of their working lives. Accessed as a source of teaching resources, information, or advice and guidance, social media spaces are an integrated context of teacher's professional practice. However, motivations for teacher participation in these spaces, especially less visible forms of participation and non-participation, are not always apparent from the posts that form the content of social media platforms. The reasons that sit behind (non)participation remain unseen, and therefore the potential opportunities and issues that surround collaborative professional development within social media spaces are unrealised or misunderstood.

Using a mixed-methods design with a larger qualitative component, this thesis explores data from 230 questionnaire responses, and 26 interviews with secondary school teachers from 20 schools to investigate the benefits and drawbacks of professional participation in social media spaces. Interviews were analysed through the use of inductive thematic analysis to allow individuals' experiences and reasons for (non)participation to form the findings of this thesis and to construct a theoretical model that understands participation in social media as an inter-related professional context rather than a separate space.

This thesis finds that the spaces that teachers are creating online are multiple and enmeshed within the many other online and offline contexts in which participants live and work. These spaces are operating as communities of support at a time when participants are experiencing change in the qualifications that they teach, and, for some, these provide an opportunity for self-directed professional development that is closely matched to subject specific needs. However, teachers are also experiencing a collapse in professional/ personal contexts and struggling to maintain these boundaries.

Overall, I conclude that there is a lack of clarity surrounding how social media spaces are accessed in schools and an absence of guidance on how social media spaces can be included within the work place as a professional development context for teachers. A more nuanced understanding is needed that recognises the time, effort, and digital labour that comprises social media participation for professional purposes, as well as the benefits and collaborative opportunities that it can provide.

Contents

Table of Tables

Table of Figures

Research Thesis: Declaration of Authorship

Print name:	KATHERINE ERRICKER

Title of thesis:	**Teachers' Participation in Discussion Spaces at the Margins of the Workplace: Collaborative Professional Development Opportunities within Social Media**

I declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University;
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
3. Where I have consulted the published work of others, this is always clearly attributed;
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
5. I have acknowledged all main sources of help;
6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
7. None of this work has been published before submission

Signature:	Katherine Erricker	Date:	14/3/19

Acknowledgements

This thesis is a study of participation, and a key understanding – that participation in one context is enmeshed within and often enacted at the cost of participation in others - has been both lived and worked in the completion of this project. Studying for a part-time PhD alongside a family and a job as an education advisor has been a lesson in the dangers of trying to do too many things, in too many contexts, all at once. I have tried for balance, but I fear that I may have sometimes just neglected each in turn.

Therefore, for their long and sorely tried patience, I need to thank Doug, Henry, Hamish, Jane, Clive and the rest of my family who have supported me throughout.

My sincere thanks to my supervisors Charis Voutsina and Gary Kinchin, for their expertise, guidance, support and for always reminding me of the value of my work.

I am also greatly indebted to all of the teachers who contributed their voices and their time to this project. I have attempted to be faithful to their experiences and hope that this thesis is an accurate reflection of the insights that they shared.

Definitions and Abbreviations

CPD – Continuing Professional Development

CPDL – Continuous Professional Development and Learning

DfE – Department of Education (UK)

GCSE – General Certification of Secondary Education (UK)

NQT – Newly Qualified Teacher

SNS – Social Network Sites

Chapter 1 Introduction and Research Aims

1.1 Discussion at the margins of the workplace

Whilst social media platforms such as Twitter and Facebook do not position themselves specifically as professional learning tools, many teachers use these applications for this purpose. Statistics for professional demographics of social media users are difficult to collate due to the self-disclosed nature of occupational data, however, one corporate estimate placed educator use of Twitter in 2014 as consisting of 4.2 million tweets from the half a billion tweets posted each day[1]. Through following, friending or tweeting other individuals or organisations, teachers are able to 'gain knowledge about teaching' (Forte, Humphreys & Park, 2012: 106), talk about classroom practice, and to connect with a "network of like-minded educators" (Holmes et al. 2013: 56). On one level, social network sites operate as conversational forums, albeit ones that can be chaotic and unstructured (Gillen & Merchant, 2013); on another, through the inclusion of embedded links to other sites, social media timelines also operate as a filter for web-content on the internet directing users to "a variety of up-to-date and relevant educational material" (Holmes et al. 2013: 63). By choosing who to follow, and which posts/ tweets to engage with, teachers are potentially creating both a bespoke community to match their needs and an up-to-date, drip-feed of personalised, professional learning information (Wright, 2010; Holmes et al. 2013). These professional discussion spaces online are presented as offering new professional learning opportunities, and potentially providing a solution to the lack of autonomy and control over the pace and content of learning that teachers can experience when engaging in school-based professional development (Orland-Barak and Tillema, 2006).

The majority of research into teacher professional development through discussion has taken as its subject the face-to-face communications of teachers either in the workplace, or collaborating together in working groups (Clark, 2001; Orland-Barak, 2006; Bannister, 2015). This area of the literature has emphasised the value of professional conversation as a learning tool that achieves a range of aims: supporting the individual in their practice, facilitating the sharing of knowledge, the building of trust, and the maintenance and development of institutional values (Eraut, 2004; Haigh, 2005; Orland-Barak & Tillema, 2006; Mawhinney, 2010; Edwards-Groves, 2013). It is recognised within the literature surrounding communities of practice and informal learning that

[1] Source: Twitter Account Executive reported in https://www.edsurge.com/news/2014-04-30-twitter-exec-reports-that-educators-dominate-the-twitter-sphere

interaction with colleagues results in an enculturation that enables new participants to take on that particular community's subjective viewpoint and learn to speak its language (Wenger, 1998b; Mawhinney, 2010). The process of “collective sense-making” and “stock-taking” that happens in these informal discussions also contributes to the maintenance of organisational values, increased trust between colleagues and greater understanding (Hammersley, 1984; Mawhinney, 2010; Waring & Bishop, 2010)-

Yet, whilst the interactions that occur on social media are often referred to as ‘conversations’ (in, for example, the user guidance from Twitter), they differ in scope, reach and context. In discussions on a public platform, such as Twitter, anyone can be the audience (Miller, 2016). The person posting may have no real idea of whom they are speaking to. This is a very different context to face-to-face interaction and lacks the privacy of a conversation in a meeting or staffroom. However, different social media contexts such as closed Facebook groups offer different sets of conditions: participants may be known, ‘friended’ both on and offline, and this is also likely to have an impact on the kinds of discussion that take place. Much of the research that has delved into the nature of the discourse that happens online has been within closed contexts – an online forum formed of participants from a school-based teaching department (Forte, Humphreys & Park, 2012), or a tutorial group of postgraduate students (Littleton & Whitelock, 2005). As such, the conversations that were held were bounded by the finite number of participants and operated as an adjunct to the ‘real-world’ relationships that already existed. Yet, some of the networks constructed between teachers online have no physical parallel; they are looser and more fragmented, unanchored in existing communities of practice. It still needs to be explored whether these self-driven networks that exist in online spaces such as Twitter assume the same shared frameworks and result in the similarly co-constructed “common values, norms and rules of behaviour” or whether the “networked individualism” of these spaces results in a fragmented collection of speakers that lack a unifying purpose (Gurstein, 2008; Fuchs et al. 2010: 54). Additionally, if the collective focus of teachers in their online discussions is on education and pedagogy, these online discussion spaces may be creating a second professional community that is positioned alongside the one that is experienced in the workplace. If so, then further exploration is needed into how the shared values, norms and identities constructed in this virtual space cohere with those that are held institutionally.

1.2 Research Aims: Participation in Social Media Contexts

This thesis explores the participation of teachers in professional spaces for discussion online across social media contexts. It explores who is participating in the conversations that are happening in these online spaces, but also who is choosing not to join in, and why. Often research into online contexts explores the available data, the visible posts; however, the choices being made by those who choose not to speak remain unstudied (Preece et al. 2004). I explore how choices about how to engage are being made, how the professional contexts that teachers work within motivate or limit participation, and how the social media contexts that the conversations are hosted within enable or restrict these discussions. There is an ever-growing body of literature pertaining to teacher use of social media (for example: Rutherford, 2010; Wright, 2010; Holmes, 2013; Lu & Curwood, 2015; Rehm & Notten, 2016). However, many explore the affordances and benefits of one specific platform (e.g. Holmes, 2013; Bissessar, 2014), and do not acknowledge that the choice of platform is itself a participatory decision. A plethora of different social media options exist online and users do not restrict themselves to a single social network. Instead, users adopt a polymediated approach choosing the platform that has the right contextual affordances, the right size of audience, the right level of privacy, to meet their needs at that moment, and may spread their participation across different social media spaces, or switch between multiple platforms for different purposes (Madianou & Miller, 2012).

When considering the possibilities for professional learning online, it also needs to be questioned whether the particular contexts of the social media platforms lend themselves to the forms of collaborative working practice that have been linked to professional learning gains (Cordingley et al. 2003; Timperley et al. 2007; Cordingley et al. 2015). There are many claims made for the benefits of interacting with social media for professional development purposes, such as its potential for providing low-cost, self-directed teacher development, or peer support (McCulloch et al. 2011; Bissessar, 2014). However, these platforms have been designed with a different priority of needs in mind. Features such as a 140 character limit (recently changed to 280 characters at the time of writing), or an unlimited potential number of participants, can result in communication that progresses in brief soundbites, or is hard to follow. Conversations that result in learning may need to be slower, more reflective and involve nuance that cannot always be communicated in a set number of characters or an emoticon (Crook & Lewthwaite, 2010). The particular design features of the social media platforms being used may be having an impact on the kind of participation that results and this may not be meeting many teachers' needs.

Currently there is also a lack of research that explores the interplay between the professional context of the school and the social media context that is being used as professional discussion space. Whilst there is a body of research into the benefits that social media participation can bring (for example: McCulloch, 2011; Bissessar, 2014; Goodyear et al. 2014), there is an absence of research that investigates the opportunity cost of this participation and the impact it is having on the professional role of teachers. Often the discussions that happen online take place out of hours and beyond the school day and this has implications for the professional expectations of teachers, their work-life balance and workload.

Overall, there is a gap in the theoretical literature: it needs to be considered how participation within social media across platforms is functioning as a form of professional development, whether it represents an extended form of professional collaborative working, or if it provides affordances that are additional to collaboration and discussion within the workplace. Questions similar to those posed by Timperley et al. (2007) in their review of what works in professional development literature, now need to be asked of professional development opportunities in social media: what is working, for whom, under what circumstances? And, what is not working, for whom, and why not?

The focus of this thesis is therefore to investigate teachers' experience of professional development through participation in discussion spaces within social media. The area of professional development through collaboration and discussion on social media currently lacks both a cohesive theoretical construct and professional guidelines that enable a clear conceptualisation of how online professional development fits within school contexts. If the opportunities afforded by professional development through participation on social media are to be embraced by the teaching profession, then these need to be included within the wider understanding of collaborative practice. However, the literature suggests that online participation may not be a form of professional practice that works for all: discussion may not provide the reflective experiences that make collaborative practice effective, certain forms of participation may not be rewarded online, and participation in an online context may have implications for participatory practices within school-based communities.

My thesis explores the benefits and drawbacks of professional development through social media and aims to create a theoretical construct that positions participation within social media as an inter-related professional context rather than a separate space.

I aim to achieve this through answering the following research questions:

- What kinds of collaborative professional development spaces are being created within social media by teachers?
- How are teachers participating in these social media spaces?
- Why do teachers participate or choose not to participate?

1.3 Terms of Reference

1.3.1 Social Media

Social media is an umbrella term, commonly used to refer to the computer-mediated communication practices that emerged as part of the rise of Web 2.0 (Ellison & boyd, 2013). It can be defined as the "technologies and tools used to enable people to express their opinion online" (McCulloch et al., 2011: 9), or "the way people share ideas, content, thoughts and relationships online" (Scott, 2010: 38). Under these definitions, all spaces in which opinion, ideas or content are shared, such as forums, message boards or comments section on blogs and news websites are social media spaces.

More commonly, the term 'social media' refers to Social Network Sites (SNS), such as Facebook or Twitter, and although these are sub-set of a wider category, the terms are usually used interchangeably both in common speech and within research literature (for example: Forte et al., 2012; Holmes et al. 2013; Carpenter & Krukta, 2015). These sites are characterised by the potential they offer for people to make connections, communicate, generate content, and share information with others (Lafuente, 2017), although the style and nature of this communication may vary from site to site (Ellison & boyd, 2013).

As such, these sites operate as 'networked publics' that are simultaneously a space and a collection of people (boyd, 2010: 39). Networked publics serve many of the same functions as other kinds of publics: they allow people to gather with others for social, cultural and civic purposes and they help people to connect with the wider world (ibid). Yet, networked publics differ from traditional publics in that the forms of participation are shaped by the affordances and dynamics of the social-technical context (boyd, 2010: 55).

In addition, to social media referring to both the space online, and the collection of people who participate, the term can also refer to participation itself and the content that is posted. In the same sense in which we refer to print media, "social media should not be seen primarily as the platforms upon which people post, but rather as the contents that are posted on these platforms." (Miller, 2016: x).

It is important to understand social network sites/ networked publics as fluid spaces in a process of continual change. The capacities and practices of these websites are rapidly evolving, often at a pace that outstrips the literature that documents their use (Ellison & boyd, 2013). To accommodate this fluidity, definitions of 'social media' as a term are varied and often multi-faceted. My use of the term 'social media' in this thesis is closest to boyd's presentation of these

online platforms as 'networked publics': I use the term to refer to the spaces for discussion online, and in doing so refer to both the online space that has been created and the interaction between people that happens within it.

1.3.2 Discussion

The interactions which happen in social media spaces are often referred to through the terminology of verbal communication[2], however the conversations which happen in these spaces are multimodal in nature and differ greatly in form from verbal discussions. Conversations online are held between multiple participants, not all of whom may be visible or known to the 'speaker'. They may be conducted either synchronously, in real time, or asynchronously, in postponed time (Crystal, 2004: 130).

As all online utterances are computer-mediated, the interactions also have a "mixed modality that combines elements of face to face communication with elements of writing" (Baym, 2010: 51). Elements such as casual and slang vocabulary lean towards speech, but the act of typing itself towards writing (Baym, 2010). Other hybrid mechanisms, such as emoticons try to bridge the gap to create the nuance of tone in a written format.

In the inclusion of these aspects, when talking about discussion on social media we have to go beyond an understanding of the term discussion as the verbal use of language, and instead conceptualise it as a more diverse form of interaction: a means of writing-looking-speaking-sharing-linking – etc. which is evolving in step with the technology through which it is mediated. The terms interaction or participation have the capacity to include a greater range of actions and could potentially be better suited to the diversity of how people communicate online.

I have chosen in this thesis to use the terms 'discussion' and 'discussion spaces' (alongside 'participation', which is defined in the following section), partly because, socially, our interactions online are defined in the language of verbal interaction, and partly because in this thesis, I draw parallels between the discussions that have traditionally happened between teachers in schools (in spaces such as the staffroom) and the conversations that are now conducted between

[2] See, for example, the help guidance on how to join conversations on Twitter: https://support.twitter.com/articles/20174577# , or Facebook's Messenger App: https://en-gb.facebook.com/help/messenger-app/242107552657620?helpref=faq_content

teachers on social media. However, when I use the term discussion and discussion spaces, I refer to an understanding of discussion as a range of potentially diverse and varied forms of interaction.

1.3.3 Participation

Participation is a central theoretical concept in this thesis and as such is discussed more comprehensively in Chapter 3. It is, at its most basic, a process of taking part (Wenger, 1998a), such as the choice to interact on a social media platform. However, it is also a means of maintaining relations with others, which could constitute doing and talking, as well as thinking, feeling and belonging (Wenger, 1998b; Hrastinski, 2009).

Participation is necessarily a socially constructed process: it is key to understanding how we live and work within communities and therefore also key to the social process of learning (Lave & Wenger, 1991; Wenger, 1998b). It is a socially complex phenomenon that is responsive to the immediate environment but can also be guided by other, more remote concerns. Participants may act within specific contexts with the concerns of other parts of their lives, in other contexts, in mind (Dreier, 1999). For example, a teacher may participate on social media spaces with the concerns of their professional, school-based context in mind.

Participation is also subjective and flexible. People participate in multiple contexts, in "diverse ways" and will lead "multi-dimensional lives" (Dreier, 1999: 11). Participation is central to our sense of identity: people understand themselves "by asking what it is they are a part of and how they take part in it" (Dreier, 1999: 6); however, it is also inconsistent – the differing demands of the different contexts that subjects interact within will mean that participation in one situation will not mirror participation in another (Dreier, 2009).

Within this thesis, I use teacher participation as a mechanism by which to understand the potential social media has for operating as a form of professional development. Through investigation of the different forms of teacher participation, and the different contextual factors which drive them, I explore the benefits and limitations of discussion in social media spaces for professional purposes and the influence that it is having on the professional role of teachers.

1.3.4 Professional Development

There are many terms in use in the literature for teacher professional development: Professional Learning (Timperley et al. 2007); CPDL (Continuous Professional Development and Learning:

Cordingley et al. 2015): Professional Development (DfE, 2016a, 2016b); CPD (Continuing Professional Development: Kennedy, 2011).

Whilst distinctions can be made in the use of these terms – for example Timperley et al.'s (2007) preference for the use of the term 'Professional Learning' in their Teacher Professional Learning and Development Best Evidence Synthesis, reflects the focus in their research into the "black box, situated between particular professional learning opportunities and their impact on teaching practice" (Timperley et al., 2007: xxiii) - in other research, such as Cordingley et al. (2015), the terms are used more interchangeably, or combined into one acronym: CPDL.

In this thesis, I also use the terms professional development and professional learning interchangeably as I consider them to be the same process. I use the acronym CPD (Continuing Professional Development) as, in line with Kennedy (2011) and Cordingley et al. (2003), I consider professional development to be a process of learning which happens over time. The specific area of CPD discussed in this thesis is collaborative professional development; this term is always referred to in full to avoid misunderstanding.

1.4 Thesis Structure: Summary and Outline

My thesis explores teacher experiences of collaborative professional development through participation in discussion spaces on social media. It will explore this area through the use of a conceptual framework that understands participation within social media as an inter-related professional context rather than a separate space.

This research aims to answer the following research questions:

- What kinds of collaborative professional development spaces are being created within social media by teachers?
- How are teachers participating in these social media spaces?
- Why do teachers participate or choose not to participate?

The thesis is structured as follows. In Section 1, I have presented an introduction to the key ideas and terms that inform my research. Section 2 explores the key literature in the areas of collaborative professional development, discussion spaces within school, and discussion spaces online. I finish this section by considering the role of the silent majority – non-visible participants, who listen to the conversation but may not speak.

Section 3 outlines the theories of participation and polymedia which underpin the methodology in this thesis. In this chapter, I discuss typologies of participation online and how these fall short of explaining interaction when online and offline contexts are considered to be fluid, inter-related contexts of communication. I then turn to Dreier (1999, 2008, 2009) and explore his understanding of participation, and by extension the self, as a flexible socially constructed process. Finally, this section looks to Miller (Madianou & Miller, 2012; Miller et al. 2012; Miller et al. 2016, Miller, 2016) his rejection of the virtual as a separate space and theorisation of polymedia, and how these ideas can be applied to teacher professional participation online. This section finishes by drawing together the different threads of my conceptual framework in diagrammatic form.

In Section 4, I outline the mixed methods research design, the qualitative weighting in this design, and explain my choice to use qualitative interview methods. The role of elicited recall within the interviews is explained, as is the use of inductive thematic analysis to inform the treatment of the data.

This methodological outline then informs the practical considerations of Section 5. In this part of the thesis, I discuss the research methods as were applied in the main research project. I start this section with a consideration of the ethics of internet research. This is an area where issues of consent are debated and often problematic. I explore this area in detail in this section and how these considerations informed the choices that I made regarding access and data collection. I also outline the pilot study used to trial my research design and explain how this subsequently influenced the methods used for the main project.

Section 6 presents the findings of this project. This chapter starts with a presentation of the questionnaire data and the themes and issues raised by these data that then needed to be further explored in interview. The interview data are structured thematically, with each participant interviewee 'speaking' within the issue or area that they voiced most clearly.

In Section 7, I discuss the findings and link the data back to the theoretical and empirical literature. In this chapter, I present my theoretical model. This model positions discussion spaces on social media as an inter-related professional context rather than a separate space, and recognises (non) participation as a process that is influenced by the competing needs of teachers' other personal and professional contexts of social practice.

Finally, in Chapter 8 I conclude by reviewing the research questions, outlining the contribution that this thesis makes to knowledge and suggest next steps and recommendations.

Chapter 2 Literature Review

The area of teacher professional development online sits at the nexus of a number of research fields and the review of research literature that follows aims to draw together these different threads. This section starts with the policy of teacher professional development in the UK. I then conduct a wider review of the literature of collaborative professional development and consider how this collaboration happens in daily interactions and discussion spaces within institutions. The literature of spaces for discussion online is subsequently explored, from the early use of bounded spaces such as student chat rooms, to the use of Twitter and more public social networks for professional development. I finish this section by looking at non-visible participants and their role within communities where knowledge is co-constructed through discussion.

2.1 The Case for Collaborative Professional Development

In 2016 the Department for Education in the UK released a new standard for teachers' professional development. These guidelines identified five key components of successful teacher CPD: "a focus on evaluating and improving pupil outcomes; robust evidence and expertise; collaboration and expert challenge; sustained programmes over time; and professional development must be prioritised by school leadership" (DfE, 2016a: 1). This document, and the accompanying implementation guidance (DfE 2016b), iterated the need for teachers to develop knowledge and skill across their careers but also recognised that this is a process that "cannot exist in isolation": there is a need for expert input and guidance but also for a "shared commitment for teachers to support one another", whether that is in peer support programmes or discussion (3).

These DfE guidelines were primarily informed by Cordingley et al.'s (2015) umbrella review of international reviews of evidence on teacher professional development. Cordingley et al.'s synthesis was conducted to provide a robust evidence base on the impact of different kinds of professional development for teachers; its starting point being that "too many of the development opportunities on offer are of variable quality" and the traditional model of Continuous Professional Development was viewed narrowly as attending courses or listening to stale talks accompanied by endless slides (DfE, 2014: 1). This standpoint is not new: traditional training models of teacher development have long been heavily criticised. Writing at the turn of the millennium, Day (1999) and Clark & Florio-Ruane (2001) highlighted the unsuccessful nature of most CPD, stating that it was a quick-fix, deficit model that failed to give teachers ownership

over the process of improvement. The need for better professional development provision was also noted at policy level as the 2001 Government strategy document, '*Learning and Teaching – A Strategy for Professional Development',* committed resources to teacher CPD both for individual needs and contexts, and for wider educational initiatives such as the National Literacy and Numeracy Strategies (detailed in Cordingley et al. 2003: 15). However, it seems that, despite this recognition and commitment, the process of change was slow to be realised. Writing in 2011, McCulloch, McIntosh and Barrett criticised the intervening "decade of top-down, cascading, initiative-led CPD" that had left many teachers "disenchanted" (McCulloch et al. 2011: 8), and were echoed in this censure by contemporaries who characterised it as "a demeaning, mind-numbing experience" (Timperley, 2011: 1) often experienced by teachers as "controlling and de-skilling" (Stevenson, 2012: 348).

Within the literature, a possible new direction for professional development had been clear for some time: a sustainable model of teacher learning in which teachers work together collaboratively to "frame and solve education-related problems" (Clark & Florio-Ruane, 2001: 10). In this 'bottom-up' approach teachers work with and learn from each other, with local authorities or other professional colleagues (DfEE, 2001; Coolohan, 2002: 10; Cordingley et al., 2003). Cordingley et al.'s (2003) Review of Collaborative CPD found that, in the 15 case studies analysed, sustained collaborative CPD practices were linked with improvements in teaching and learning, and that "many of these improvements were substantial" (Cordingley et al. 2003: 4). In 2015, Cordingley et al. reiterated the importance of collaboration stating that:

> "… access to some form of collegial support for solving important problems was essential, along with input from an expert leader, establishing common goals and new approaches for achieving them, and with joint effort focussed on learning of pupils with similar needs" (Cordingley et al. 2015: 7*)*

Other publications from the UK Department for Education have also reflected this message stating that that "teachers learn best from other professionals" and need the "opportunity to plan, prepare, reflect and teach" with other teachers (DfE, 2010: 19). Collaborative activities between schools have been identified by as "the most effective means of sharing expertise and helping schools to identify and address particular areas of weakness" (DfE, 2015: 30).

However, the definition of collaboration here is loose. It is simultaneously an ongoing process between teachers (Coolohan, 2002; DfE, 2010), a form of institutional level co-operation between schools (DfE, 2015), a collaborative problem-solving exercise (Cordingley et al. 2003), an evidence-

based response to pupil outcomes (Cordingley, 2015), and an arrangement with local authorities or consultant professionals (Cordingley et al. 2003). Collaboration is presented as both a cultural attribute of the best schools and systems – a generalized notion of teachers enabled to develop continuously by working together (Barber & Mourshed, 2007; DfE, 2010; McCulloch et al., 2011) - and a highly-structured process in which expertise is sought and applied in an iterative cycle of teacher inquiry (Cordingley et al. 2003; Timperley et al. 2007; Cordingley et al., 2015). Regardless of the form that it takes, it is also a statutory requirement that teachers take autonomous responsibility for self-development by developing "effective professional relationships with colleagues" and "responding to advice and feedback" (DfE Teacher Standards, 2012: 9).

The empirical research that the meta-analyses draw from in Cordingley et al.'s (2015) umbrella review details a range of possible forms of collaboration including peer or co-coaching, shared planning, peer observation and collaborative action research. This is one of the strengths of the umbrella review: by drawing on a range of meta-analyses, a wide variety of different approaches can be included within its remit. However, this is also a limitation, because in the process of synthesising the principles of each piece of research, the specific details of how these principles can be put into action effectively are lost. Whilst Cordingley et al. (2015: 8) are careful to note that "no single particular form of activity was shown to be universally effective", this lack of specificity means that the DfE (2016a, 2016b) guidance drawn from the review lacks clarity. It is unclear to teachers and school leaders how to put the advice given into practice or which form of collaboration works best: whether peer coaching is more successful than shared planning, or peer observation preferable to collaborative action research.

A further complication is the patchwork landscape of educational research itself. Whilst the structure of an umbrella review seems comprehensive and systematic - an overarching review, that draws on smaller reviews and meta-analyses of empirical research – it is drawing on an evidence base that has not been built up in a systematic way. Timperley et al. (2007) address this as a limitation in their Best Evidence Synthesis of Teacher Professional Learning and Development, stating that:

> Throughout the search and mapping process, it was evident that research into the impact of professional development on student outcomes is not an area of research that has systematically built up an evidence base; rather, it is a collection of individual studies and, in some cases, small collections of studies. The synthesis is, therefore, somewhat like a picture painted with the evidence from a collection of studies: the colours are much brighter and clearer in some areas than others. (Timperley et al. 2007: 25)

A good example of this is the inclusion of the work of O' Sullivan (2001, 2002) as a key study in two of the meta-analyses that feature in the final 15 chosen for Cordingley et al.'s (2015) umbrella review (Cordingley, 2003; Avalos, 2010). O' Sullivan's action research was conducted from 1995 – 1997 on the communicative and reflective approaches of primary school teachers from one educational district in Namibia. This research provides interesting insights into the transferability of "western communicative approaches" to developing countries (O' Sullivan, 2001: 525), and on how an iterative action research model can be applied to INSET style professional development (O' Sullivan, 2002). However, the studies are also very culturally specific, as they draw on one particular professional and social context. Due to the distillation process of the umbrella review, this context is now possibly over-represented in the literature. It could be questioned whether this is the most relevant research for teachers who are working in different professional and social contexts 20 years later.

The time lapse that results from the multi-layered process of meta-analysis could also explain the lack of reference to social media or online learning in the DfE (2016) guidance or Cordingley et al.'s (2015) review. It seems odd that the technology that is dominant socially as a communicative medium and information source is not mentioned in publications that champion the need for collaboration and expert guidance (Cordingley et al. 2015; DfE, 2016a; DfE, 2016b). This omission could be due to the time-consuming nature of the publication and review process. Despite the recent date of the DfE guidance (2016) and Cordingley et al.'s review (2015), the empirical research that is being drawn upon to inform these publications is much older. For example, of the 11 meta-analyses sourced for the umbrella review, only 5 were published since 2010. The 'cornerstone' review used for the research was Timperley at al. (2007). Whilst this does not necessarily affect the relevance or rigour of the research that has been used, it does mean that any more recent developments in the field of teacher professional development are not painted as brightly or clearly as other areas. Most pertinently, the two most popular social media platforms, Facebook and Twitter were only launched in 2004 and 2006 respectively (Rutherford, 2010; Davis, 2015), therefore opportunities for research into the teacher use of social media for professional development in time for inclusion in these reviews would have been more limited. In all of the research sourced for the umbrella review, only Avalos (2011) explicitly refers to online learning (blogging, online discussion forums and online video case study) and this research only constitutes 3 studies from the 113 publications referenced.

The omission of research into social media and teacher professional development in the reviews that inform policy means that there is currently a lack of guidance for schools on how this technology can be harnessed and used for collaborative working, and also a lack of guidance on the problems and pitfalls that need to be avoided. Although the use of social media could promise great rewards such as wider access to research and information, or closer links with other colleagues and institutions, it is rare that the introduction of new initiatives comes without an opportunity cost. Social media is thoroughly embedded into the fabric of modern society but clarification on professional learning through the use of these technologies is lacking. Greater clarity is needed on the expectations for teachers regarding the use of social media, who is expected to use it and how this fits into the current professional development landscape.

My thesis explores this current tension: how the use of social media for teacher collaboration and discussion is widely adopted but thinly defined; it is an area that lacks clear expectations or professional participatory norms. To investigate how social media platforms could operate as discussion spaces for professional collaboration, I first explore the literature on teacher professional development and collaboration within schools and then widen my focus to include a review of research on collaborative communities and discussion online.

2.2 Professional Collaboration in the School Community

In guidance written for the Australian Institute for Teaching and School Leadership in 2011, Helen Timperley sketches the new landscape of teacher professionalism in the 21st Century. Here she states that traditional models of professionalism have been replaced by a new, more flexible understanding of teachers as "adaptive experts" (2011: 1). In this new version of their professional role, teachers need to constantly review their practice for effectiveness, respond flexibly to challenge and seek out new knowledge and skills (ibid). The concept of adaptive expert also represents a shift away from the notion of a teacher as a professional who does their individual best, to an expectation that schools engage collectively to ensure the engagement, learning and well-being of their students.

Three sets of ideas underlie Timperley's presentation of the shifting nature of professionalism. The first is a dynamic definition of a teacher's role as a responsive expert who has a strong sense of professional agency: being an "adaptive expert" means being "constantly vigilant" about the effect of teaching and learning routines on students and also, if unsuccessful, knowing how, when

and where to seek help (Timperley, 2011: 6). This adaptive capacity is a continuous process of learning and adjustment that "allows for ambiguity and complexity" (Timperley, 2011: 7).

The second idea refers to theories of professional learning. Adaptive expertise is underpinned by learning which is both self-motivated and socially constructed. Participating professionals take control of their own development and seek out new learning experiences and knowledge; however, the professional learning community is an important mediating variable in establishing a successful learning environment for teachers – this can refer both to the day to day interactions that occur through ongoing activities and also professional communities that may go beyond the "immediate social context" of the school (Timperley, 2011: 7).

The final idea is the place of evaluation: a reflective stance taken by professionals in order to probe the efficacy of their actions. It is important, however, to consider evaluation as an iterative and ongoing process throughout learning rather than an action that takes place at the end: "evaluation feeds learning and must be integrated throughout" (Timperley, 2011: 9).

From these three underlying ideas, Timperley identifies four broad principles of effective professional development: making professional learning core school business; focusing on outcomes for students; developing deep pedagogical/ assessment knowledge; and "constructing professional learning environments that are consistent with how people learn" (Timperley, 2011: 18). This fourth principle establishes a connection between the social nature of learning and the need to build collaborative professional communities. These communities do not just have to exist within schools: they can be across institutions or web based (Timperley, 2011). Within Timperley's guidance these principles integrate through their application in a cycle of enquiry that systematically builds knowledge and skills. The key empirical research that evidenced this approach was the Literacy Professional Development Project (LDPD) in New Zealand that was designed and implemented, in tandem with the New Zealand Ministry of Education, to achieve the "national strategic goals of raising student achievement and reducing disparities" (Si'ilata et al. 2012). The iterative professional enquiry process followed in this project resulted in substantial learning gains for all pupils, and particularly those from disadvantaged groups (Meissel et al. 2016). However, the highly structured, state-sponsored nature of this kind of collaboration is very different from the kinds of small-scale projects that may exist within schools and also markedly different from the participatory structures or lack of structure within social media.

Similarly, in Cordingley et al.'s (2003) review of the impact of collaborative Continuous Professional Development on classroom teaching and learning, collaboration is defined as a systematic process, both: "teachers working together on a sustained basis and/or teachers working with LEA or HEI or other professional colleagues" (Cordingley et al. 2003: 2) and "a structured way of working involving considerable co-ordination built on clarity about the nature of adult and pupil learning processes" (ibid: 9). The specific mechanisms that the report highlights as necessary to support this process include: specialist external input; internal peer support (including coaching and peer-coaching); "arrangements for sustaining learning over time; and the potential for collaboration between teachers to lead to collaborative ways of pupil working". (Cordingley et al. 2003: 9).

The forms of collaborative working detailed in Cordingley et al.'s (2003) review are structured and planned, often in the form of carefully designed programmes or developed in tandem with external change agents. For example, research from Bryant et al. (2001), and Wilkins (1997) refers to a cascade model in which mentors and lead teachers are developed in one school and then take their expertise to other schools in the area. Brown (1992) and Ross et al. (1999) refer to the use of external consultants and academics who set the tone for collaboration by providing "a knowledge base and skills, the freedom from administrative constraints and the ready access to information" (Cordingley et al. 2003: 52). All of these studies reported successful outcomes for teacher knowledge, confidence and self-efficacy and one, by Brown (1992), also reported an impact on student outcomes.

However, when considering how programmes such as those referenced by Timperley (2011) and Cordingley et al. (2003) could apply to online discussion spaces, it is clear that these structured forms of collaboration are quite different from the looser forms of discussion and collaboration that happen on social media. Online communities are not so tightly bounded, participants change and roles such as mentor and coach are not assigned. Whilst the use of social media may be able to support teachers in meeting some of the mechanisms for collaborative working such as "sustaining learning over time", or "creating a distinctive space where it is safe to admit need", the systematic nature of the programmes detailed in these reviews which achieve these goals are not necessarily as applicable to the freer forms of participation that occur in social media spaces (Cordingley et al. 2003: 9).

Overall, these reviews of professional development literature present a disjointed message on the value of collaboration. All of these publications (Cordingley et al, 2003; Timperley et al. 2007;

Timperley, 2011), stress that collaboration is valuable; however, the value is only assigned to certain highly organised formats. Looser forms of collaborative working are not always correlated with positive outcomes. Timperley et al. (2007: 205) warn that without a sharp focus and collective responsibility for pupil outcomes, collaboration can become "sharing of 'war stories'" instead of a means for improving the learning of students. One example provided is an ethnographic case study about teacher collaboration and decision making during the restructure of a junior high school (Lipman, 1997, in Timperley et al., 2007, and Timperley, 2011) which indicated that it is possible for collaboration and discussion to be used to reinforce the status quo and reinforce existing deficit thinking and structural inequalities by marginalising those who voice alternative theories. The message is that for dialogue to be successful, an element of critical challenge is essential – just giving teachers time to talk is not enough (Timperley et al. 2007).

However, there is a danger here that the autonomy and self-directed motivation recognised by Timperley (2011) as a component of a new adaptive professionalism is only rewarded when applied within certain prescribed structures of working. The communities of teachers that exist within social media spaces such as Twitter, are proactive in the sharing and seeking of knowledge (Krukta & Carpenter, 2016), and may have a strong sense of professional agency, but may not necessarily be cast in particular roles of mentor and mentee, or be organising their learning into a staged cycle of inquiry. The emergent forms of learning being exercised on online platforms do not seem to be recognised within this literature. It also needs to be recognised that whilst student outcomes are the eventual aim of all learning institutions, "there are professional learning goals that do not relate directly to students or their achievements, such as boosting staff morale, or enhancing teacher feelings of efficacy or congeniality" (Meissel et al. 2016: 164). When seeking to ascertain the value of collaborative working, it may be necessary to move beyond a process-product model that focuses on specific activities, processes and programs, to a "more dynamic consideration of the learning environment that enables professional learning" (ibid), including social media environments that may present collaboration as a less structured but potentially more complex experience.

2.3 The Staffroom as Model

One potential model for the kinds of collaboration that happen on social media could be the professional development that happens in the conversations and social practice within and between teachers as part of their daily activity (Lave & Wenger, 1991; Orland-Barak, 2006). These

informal systems, developed over time, are a result of shared enterprise and it is through participation in interactions of the school community that individuals become able to improve their own practice (Coleman & Earley, 2005; Avalos, 2010). A situated model of learning considers participation itself to be a form of learning; albeit one that does not necessarily follow a specific structure or curriculum (Lave, 2009). This kind of informal learning is not easy to measure: it is "invisible, tacit, and not easily explained out of context" (Thomson, 2015: 139). Furthermore, much of informal learning can be taken for granted and thus not recognized as professional learning (Eraut, 2004).

If this model of situated learning is recognised as a form of professional development, then it would be difficult to find a school that lacks it. Mawhinney (2010) argues that a common context within schools in which teaching practice is informally shared is the staffroom (or teacher's lounge). Drawing on findings from a two-year ethnographic study comprising interviews, and observations of interaction in the teacher's lounge during lunch hours, Mawhinney argues for recognition of these spaces as sites where professional discussion and development occur. This research details that the discussion conducted between teachers functions as a support mechanism, both holistically (offering emotional and social support, fostering confidence) and professionally (developing understanding of the practice of teaching, collaborating on projects, sharing key information and advice) (Mawhinney, 2010: 974).

Mawhinney's argument holds that teaching is an "isolating" profession, and that this isolation is compounded by the "societal and professional requirement" for emotional distance: the need for teachers to mask their own emotions in order to provide pupils with a consistently positive learning experience (Mawhinney, 2008: 196). The means of negotiating the tension between the "outer work of teaching" and the "inner work of emotional labour" that enables teachers to continue to cope is the release of emotions during discussion within safe congregational spaces and social networks (ibid). The value of collaborative teacher cultures in which individuals feel able to express their emotions, negative, and positive, to admit to failure and weakness, to voice resentment, frustration, and demonstrate affection is also recognised by Zembylas and Barker (2007) in a two-year ethnographic study examining the response of science teachers to educational reform. It needs to be noted here that the relational and emotional aspects of teacher learning are presented in this literature as at least as important as the substantive and the technical (Clark & Florio-Ruane, 2001; Zembylas & Barker, 2007; Mawhinney, 2010). It is through informal teacher talk that trusting relationships and mutual openness are built and through this a shared language is developed that can be considered the foundation of the day-to-

day communication that contributes to the success of what teachers do (Zembylas & Barker, 2007).

Outside of the field of educational research, the value of informal professional discussion has also been recognised. Waring and Bishop's (2010) ethnographic study of informal knowledge sharing in two-day surgery units investigated how spontaneous conversations conducted in corridors and congregational spaces in the hospital become a vehicle for "knowledge sharing, learning and the maintenance of organisational and occupational values" (Waring & Bishop, 2010: 326). Similarly to Mawhinney (2008), Waring and Bishop allude to the need for places where the professional mask can be dropped and conversations can deviate from the "normal scripted expectations of the 'front stage'" (Waring & Bishop, 2010: 327). Within the hospital, the clinical corridors function as this liminal space at the "margins of the workplace" in which franker and more open forms of dialogue are possible (ibid: 337). This communication then enables clinicians to "share collective experiences" and "find common ways of addressing mutual problems" (Waring & Bishop, 2010: 338), echoing Hammersley's (1984: 209) assertion that staffroom conversation operates as a form of "collective sense making".

However, Mawhinney (2008) and Waring & Bishop (2010) share a perspective that, although these forms of discussion are important and beneficial, they are conducted separately from the professional role that is being fulfilled in the workplace. The metaphors of the mask and the stage used in these pieces of research are suggestive of artificiality, of a role being put on and performed (Mawhinney, 2008: Waring & Bishop, 2010). This is a divided picture in which the dialogue that forms the structural underpinning of the professional culture, the formation of cohesive working relationships and establishment of shared cultural norms, is presented as being largely overlooked and undervalued compared to the real work of interacting with pupils or patients. Similarly, the topographical perspective of the institution is also divided into professional spaces and marginal spaces in which practitioners can both be and not be a professional – they will be recognised as one by others, but not expected to be in role. This is problematic because, as Wenger (1998b) argues, a professional role is not something that is put on like a mask; it forms a deeper component of who we are and how we interact with others within a given community. The interaction with our colleagues is a linked rather than separate part of our professional lives. Recognition of this point is implicit within Mawhinney (2010) and Waring & Bishop's (2010) analysis because despite the separation of place, the conversations held in these liminal congregational spaces are presented as fluid in their benefits and as resulting in positive contributions to practice (Mawhinney, 2010; Waring & Bishop, 2010).

It is also possible to widen the net still further and map the "constellation of relations" which occur across and beyond the boundaries of an institution (McGregor, 2003: 354). Following Massey (1994) and Nespor (1994), McGregor (2003) argues for a conceptualisation of how space and interaction within a professional environment overlap. In this topological model, space is relational – the physical environment is both constructed by, and supports the construction of, the social relations that happen within it: the institution itself is "continually being produced by interconnecting relationships and practices" (McGregor, 2003: 353). The spaces of the classroom or school are therefore not considered to be fixed and bounded because they are part of a wider structure of associative relationships. There is a fluidity that acknowledges how the practices that happen within these places are "enmeshed" within networks of social and cultural relations (McGregor, 2003: 363).

In McGregor's micro-ethnographic study of two secondary schools, teachers mapped their workplaces across the institutions, detailing their interactions and where the strongest areas of "joint work" occurred (McGregor, 2003: 357). From these maps, the importance of informal interactions was documented, particularly within department offices where the subculture of the department became "an important reference group and source of professional identity" (McGregor, 2003: 362). Staffrooms were used differently in the two institutions – in one this space was seen as a site of spontaneous "cross curricular collaboration" in the other, due to the legacy of the negative reverberations of a school merger, "the most underused room in the school" (McGregor, 2003: 361- 362). However, in both the use of the staffroom was seen as an embodiment of the wider professional and political climate of the school: cohesive in one, fractured in the other. In this area, McGregor's work adds a note of complexity to the discourse that surrounds the benefits of informal discussion in the workplace, because one of the reasons that cross-curricular collaboration was undermined in the less cohesive school was due to the existence of department offices and the participation of teachers in discussions within these spaces instead. McGregor (2003) thus recognises, as perhaps Mawhinney (2008; 2010) and Waring & Bishop (2010) do not, that the choice of informal discussion that practitioners engage in has consequences that may not always be entirely beneficial. For example, whilst departments may be a "major arena for practice-relevant collaborative work" the subcultures created by the clustering of social interaction within these spaces can also lead to "balkanisation, competition over resources and a lack of cross-curricular work" (McGregor 2003: 362). This is a more complex picture that acknowledges the tensions inherent in the choices made over how to participate and with whom. What is beneficial for the individual or the department may be detrimental to the

institution as a whole and the discussions that are engaged in are not politically neutral in content or consequence.

When applied to the context of social media, this area of research is helpful in posing questions that surround choices of participation. If making a choice to collaborate with one department affects the potential for participation in collaborative work with others, then it could be that participation in social media communities for collaborative purposes carries a similar opportunity cost. Within or between social media platforms, there is a possibility for subcultures to be created by the clustering of particular users online, and the potential for resulting balkanisation. It is also possible to see how participation in an online community could be beneficial for the individual but detrimental for the school, if participation on social media takes the place of collaborative work with peers within the school community. It is with these understandings in mind that the potential of social networks as spaces for learning and discussion will now be explored.

2.4 Social Networks as Spaces for Discussion

Globally, recent estimates place a median 76% of online adults as social network users (Pew Research Centre, 2016), and usage statistics from 2017 number the users of the most popular social media platforms as surpassing the 1 billion mark (Statista, 2017). Whilst it is difficult to estimate how many teachers use any given social media platform due to the self-disclosed nature of occupational information, a survey of secondary school teachers in the UK conducted by Schoolzone in 2014, indicated that high percentages of respondents accessed social media regularly for both personal and professional purposes (for example, 70% accessed Facebook daily for personal use; 89% used YouTube in a professional capacity) (Collie & Cassidy, 2014: 5-6). The use of social media technology has become an intrinsic part of how people live and work (Miller et al. 2016), and this is also true for teachers, their educational practice and their professional development.

Theoretically, McGregor's (2003) topological model could extend to encompass these online spaces as it already acknowledges that the workplace of teachers extends "well beyond the physical limits of the institution or the temporal boundaries of the school day" (McGregor, 2003: 365). However, this raises some interesting questions: if what we call 'the school' is more than the physical building in which relationships are enacted – it is also the product of "inter-relations" and "materially embedded practices" (McGregor, 2003: 368-9) – it could also by extension be

considered the product of inter-relations and virtual practices online. Furthermore, if within a socially constructed view of workplace learning, informal and conversational interactions contribute to the professional growth and development of staff, the interactions of teachers online could feasibly do the same.

The potential for online spaces to function in this manner has already been documented. In the publication 'Tweeting for Teachers' from the Pearson Centre for Policy and Learning, McCulloch et al. (2011) made a direct link between a socially constructed dynamic of professional learning and social media technologies, stating that these provide teachers with a way to:

> "take control of their own professional development, finding new ways to learn from each other, to reflect on their own practice, and to develop learning and support networks of like-minded professionals all over the world" (McCulloch, McIntosh & Barrett, 2011: 4).

The publication presents a range of case studies detailing how teachers, institutions and businesses have used social media to communicate with their communities or support professional learning and through these exemplifies that social media could provide a means of empowering teachers to grow their own professional development at "minimal additional cost" (McCulloch et al. 2011: 7). The paper also offers a series of recommendations for school leaders and policymakers. These recommendations encourage leaders to embrace the "huge potential of social media as a support to collaborative teacher-led CPD" and to "recognise and celebrate self-directed learning by teachers using online tools" (McCulloch et al. 2011: 4). Additional recommendations for policymakers suggest that guidelines for teachers and leaders about the use of social media in schools should be published and a common online space created "where the whole educational community can find each other" (ibid: 5). Six years later, neither of these recommendations has been actioned, although the use of social media has increased dramatically and the research in this area that was only emergent at the time McCulloch et al. were writing is now far more prolific (for example, Forte, Humphreys & Park, 2012; Holmes et al. 2013; Bissessar, 2014; Goodyear, Casey & Kirk, 2014; Carpenter & Krukta, 2015; Davis, 2015; Kinchin & Bryant, 2015; Rehm & Notten, 2016).

Social media platforms do seem to have the potential to cross the margins of the workplace and extend collaborative opportunities for teachers into online spaces. There is considerable enthusiasm for the "rich rewards" that these platforms could bring to the professional development of both individual teachers and institutions (McCulloch et al. 2011: 34), and research into teacher use of social media largely supports McCulloch et al.'s (2011) claims for its potential

as a tool for informal professional development (Holmes et al. 2013; Bissessar, 2014; Kinchin & Bryant, 2015; Rehm & Notten, 2016). However, caution needs to be exercised to ensure that social media is not seen as a panacea. Online spaces are frequently presented as almost utopian in the opportunities they offer: they are presented as empowering, autonomous, self-pacing and self-directed, egalitarian places in which institutional hierarchy is irrelevant and the voices of new and future teachers are seen as "just as valuable as the more seasoned educators" (Forte, Humphreys & Park, 2012; Bissessar, 2014: 122). This presentation is simplistic and ignores the challenges that accompany investment in any process of professional learning. As McCulloch et al. (2011: 34) recognise, engaging with colleagues in this way can be "frustrating, time-consuming and demanding". And it is not yet clear whether schools recognise the use of social media as a valuable part of professional learning and allocate time accordingly, or it has to be squeezed in beyond the boundaries of the school day. It is also notable that there are no recommendations in the McCulloch report for teachers. Instead there is an implicit assumption that use of these platforms is intuitive, and leaders and policy will be directed by the teachers who are spearheading this movement (McCulloch et al. 2011). The danger here, and in the research that only focuses on the users of these social media platforms, is that non-users are ignored along with their reasons for non-participation. As McCulloch at al. (2011) recognise, questions need to be asked about who is using social media, why are they using it and what they gain. However, by extension it also needs to be explored whether these online collaborative spaces have the potential to include everybody or are there those who are constrained in their participation and feel unable to join in these discussion spaces that exist beyond the traditional margins of the workplace.

2.5 Bounded Spaces: Discussion in Online Communities of Enquiry

The value of discussion to support teachers' professional development has been emphasised in the research into online Communities of Enquiry. These platforms, usually designed for students at university, or those studying web-based courses, are spaces that use computer-mediated communication within purpose-built forums as an educational tool, and are presented as differing from other online groups because of the clear focus on shared practice and collaboration (Holmes, 2013). Discussion is presented as the key component of the learning that happens within these forums: both "enabling and encouraging the construction of personal meaning" and "shaping and confirming mutual understanding" (Garrison & Anderson, 2003: 68).

One study that investigates the mechanisms of the dialogue that occurs within these forums, is Littleton and Whitelock's study of an Open University postgraduate online learning community (2005). This research found that the synchronous and asynchronous discussions held between students successfully constructed knowledge and established common ground through the cumulative sharing of ideas and resources (Littleton & Whitelock, 2005). However, the research also found that exploratory modes of dialogue – those which involve "sustained, constructively critical engagement with each other's ideas" - were not as evident in the student's conversations (Littleton & Whitelock, 2005: 20). This was a counter-intuitive finding because exploratory talk is defined within Mercer's (2000) talk typology as the form of discussion that results in a "distinctive social mode of thinking": one in which knowledge is co-owned and co-constructed (Littleton & Whitelock, 2005: 9). Whilst Littleton & Whitelock recognise the value of a cumulative mode of learning, the lack of exploratory discussion is presented in this paper as a concern that needs to be addressed by explicitly teaching students how to participate and converse in a community-based learning environment (Littleton & Whitelock, 2005).

However, there is also other evidence that learning within online group environments can be beneficial as a form of professional development specifically for teachers. In Goodyear, Casey and Kirk's (2014) longitudinal participatory action research project, a closed group of 5 teachers (plus a facilitator) was created on Facebook – with all participants also working together within a school physical education department. The findings of this project suggested that the use of social media by this community created a "virtual location external to the school site" that supported teachers in changing their practice (Goodyear et al. 2014: 928). The binding purpose of this community of practice was the "pre-defined learning goal" (the adoption of co-operative learning practices) established by the facilitator; a shared aim that mirrors the problem-based focus set by instructors in communities of enquiry (Littleton & Whitelock, 2005; Garrison & Arbaugh, 2007). Through the conversations held with the facilitator and the group, teachers were affirmed in their practice, supported in their adoption of pedagogical innovation and encouraged to work together in developing new shared practices for the department (Goodyear et al. 2014). However, it is notable that the conversations that they had with both the facilitator and each other did not demonstrate sustained reflection or critical discourse; instead they centred on recognition and affirmation both through the use of 'retweeting' or 'liking' and posts that shared resources and ideas (Goodyear et al. 2014). This study echoes Littleton and Whitelock's research in both its recognition of the value of the community building that "goes hand in hand with knowledge building" (Little & Whitelock, 2005: 16), and also the lack of evidence in the findings of the

reflective dialogue that is considered to be key to the "dynamic co-construction of knowledge" and the development of learners who participate within enquiry groups (Tillema & van der Westhuizen, 2006: 52-53; Clarke, Triggs & Nielsen, 2014).

Given the lack of evidence in both of these studies of critical and reflective dialogue, it seems that the benefits reaped by professionals from social media learning environments may be developed through more cumulative forms of discussion and participation. In analyses of pre-service teachers' participation in Facebook groups, both Kinchin & Bryant (2015) and Lu & Curwood (2015) detail how these online congregational spaces function as forums for discussion that is co-constructive and cumulative in nature, and provide both emotional and professional support. For the pre-service teachers in Kinchin & Bryant's research (2015), the forum offered participants an informal collaborative experience in which they could share knowledge and seek reassurance from their contemporaries (Kinchin & Bryant, 2015). Likewise, in an echo of Mawhinney's (2008: 196) depiction of the staff room as a supportive congregational space for teachers that mitigates teachers' experience of teaching as an "isolating profession", Lu & Curwood (2015: 440) also present the Facebook forum as a "safe space" necessary at a time when trainees are vulnerable and isolated in a new school environment. Participation in this space provided pre-service teachers with opportunities to ask for help and co-construct solutions to problems, but also, through the relationships with the group, to start to co-construct an emergent professional identity (Lu & Curwood, 2015).

However, the forum groups analysed in these research projects were small (the maximum size was 61 members) (Littleton & Whitelock, 2005; Goodyear, Casey & Kirk, 2014; Kinchin & Bryant, 2015; Lu & Curwood, 2015): these were closed groups of students from specific institutional sites. Constructing a supportive discussion space within a small community is different from interacting with the public networks of users that form the wider social media landscape. It needs to be examined whether the close supportive ties that are formed in discussion between users in these smaller spaces can be created within a wider context. Bissessar's (2014) study of the Trinidadian teacher's Facebook group 'A Teacher's Voice' (ATV) provides such an example, as it examines the use of a larger forum, used by 4,895 teachers, as an informal professional development tool. This research details that participation within the Facebook group enabled teachers to access practical professional help such as resources, advice and specific teaching strategies. Additionally, in a parallel of the "beehive" activity seen in the staff room (Mawhinney, 2010: 974), it was also a site in which teachers could seek emotional support, vent frustration and in which novice teachers could seek mentorship from more experienced colleagues (Bissessar, 2014). This Facebook group

is the only one of its kind for teachers in Trinidad and Tobago, and as such is the national forum that all trainee teachers access for informal professional development and support. In this capacity it could be viewed as a model for the kind of "common online space where the whole education community can find each other" recommended by McCulloch et al. (2011: 33). If online discussion groups have the potential to extend knowledge sharing and supportive mechanisms to much larger numbers of participants, then perhaps the benefits of congregational spaces seen within the workplace could be extended to encompass a wider online community of teachers.

2.6 Twitter and the Use of Public Social Networks

Twitter is another popular Social Network Site that is presented in the literature as having the potential to act as a locus for teacher professional development (Forte, Humphreys & Park, 2012; Holmes et al. 2013; Carpenter & Krukta, 2014a, 2014b, 2015; Davis, 2015). However, Twitter differs from Facebook: it is an open social network in which users can follow and be followed by people that they do not know. Participants connect as followers rather than friends and Twitter users are not able to create closed groups with other like-minded participants. Twitter is primarily a microblogging service in which messages or 'tweets' are currently restricted to 280 (previously 140) characters. This places constraints on discussion, but also encourages a range of other communicative practices such as 'retweeting', and the use of hashtags to share resources, ideas and connect with other users (Boyd, Golder & Lotan, 2010; Carpenter & Krukta, 2014). Synchronous 1 hour Twitter chats organised around a hashtag (e.g. #edchat) are also popular amongst tweeting educators (Carpenter & Krukta, 2014b: 416).

Since its launch in 2006, use of Twitter has evolved. It has been considered variously as an urban lifestyle tool, an emergency communication channel in times of disaster and a "source of pointless babble" and narcissistic updates (Rogers, 2014: xx). It has also been critiqued as lacking the characteristics of a social network due to low reciprocity in following and instead labelled as news media in which users broadcast their updates to others (Rogers, 2014). However, despite these perceived limitations, Twitter is very popular amongst teachers and is considered to provide communicative opportunities that foster effective professional development (Forte, Humphreys & Park, 2012; Holmes et al. 2013; Carpenter & Krukta, 2014a, 2014b, 2015; Davis, 2015). One method in which it does so is to operate as a resource sharing tool. The practical sharing of teaching resources and information through the tweeting of links to education-related articles, blogs or other websites is the most common use of the platform amongst teachers (Forte, Humphreys & Park, 2012; Collie & Cassidy, 2014). In this sense it does act as an educational news supply, enabling users to stay up to date with new developments and access appropriate web-based resources (Holmes et al. 2013). The sharing of information also enables teachers to form connections and professional networks in which they are given access to resources and are able to position themselves as information brokers (Forte, Humphreys & Park, 2012).

The use of hashtags enables the clustering of resources and data around a specific topic, but hashtag conversations have also created opportunities for teachers to engage in non-synchronous discussion on Twitter. These live 'chats' are popular: one survey of 755 educators, conducted in 2014, stated that 73% of respondents had participated in a #chat event (Carpenter & Krukta,

2014a: 12). By connecting the tweets of disparate users into a common thread of discussion, these conversations also have the potential to create a community of users around a shared area or topic of interest. In Davis' (2015) analysis of teacher perceptions of Twitter as a source of professional development, engagement with #Edchat resulted in teachers experiencing a sense of belonging. Participants reported perceiving #Edchat as a source of emotional support and encouragement due to the contributions and ideas that they received from others (Davis, 2015). Carpenter & Krukta (2014a) and Rehm & Notten (2016) also comment on hashtags as a feature that facilitates connections between educators with shared interests.

Similarly to the literature on congregational spaces within schools and Facebook groups, the use of Twitter is also presented as an antidote to isolation, both for practitioners who are working in remote communities and also for those who experience teaching as an isolating profession (Forte, Humphreys & Park, 2012; Holmes et al. 2013; Davis, 2015). The language of physical infrastructure emerges in the literature as Twitter users are presented as 'bridges' between their local communities and other networks and 'conduits' through which new practices can emerge (Forte, Humphreys and Park, 2012: 110-112).

Therefore, although Twitter chats are essentially a clustering of interested participants around a topic, through discussion and collaboration they can become a congregational space which fosters sustained relationships and a positive community (Carpenter & Krukta, 2014b). Twitter use "expands the faculty room" and takes the informal networking that happens in spaces within school to a wider network of professional contacts (Carpenter & Krukta, 2014b: 424). Like Facebook groups, it has the potential to act as a virtual location external to the school site that supports teachers in changing their practice (Goodyear, Casey & Kirk, 2014: 928). However, it should be noted that, when entering such online spaces, neither the learning nor the knowledge are guaranteed (Rehm & Notten, 2016). The opportunities for professional development are dependent on the other participants and what they are prepared to share. Such environments are defined by Rehm & Notten (2016: 216) in their social network analysis of the creation of social capital amongst educators on Twitter, as "social opportunity spaces" in which knowledge creation can be fostered and learning processes stimulated but these rest on a complex interplay of underlying relations and factors.

2.7 'Lurkers': Problematizing Participation

The factor that problematizes the democratic vision for shared knowledge creation within online spaces is the nature of participation, and more specifically, those who choose not to participate. Any learning that is socially constructed relies on users to participate in the process of discussion, yet, within social media spaces not all participants choose to post. In the social media community 'lurkers' or spectators have traditionally been viewed negatively: 'lurking' is a pejorative term with connotations of sinister intent. Early dot.com attitudes towards people who did not actively post were hostile: they were seen as free-riders who had not fully earned their place in the community (Preece at al. 2004). More recently, however, attitudes towards those who lurk have evolved and a more nuanced understanding of the reasons behind participatory silence has developed. This is an important shift, because spectators make up the silent majority of virtual communities: one study estimated that they constituted up to 90% of the participants within online groups (Preece et al. 2004: 218). If this is the case, then the choice that these users are making to (non)participate in this way needs to be recognised and the reasons behind their choices explored, otherwise there is a danger that the value of the professional development happening within online communities is being judged by the behaviours of the minority who actively engage, not the majority of those who do not.

Spectators lack presence in the literature, as they do online. It is difficult to research the contributions of those who choose not post: they sit beyond the reach of most data sets. However, qualitative studies that have investigated the 'reasons for lurking' list a number of contributing factors (Preece et al. 2004: 201). The most benign reason for non-participation is that spectators are simply learning through reading the contributions of others (Preece at el. 2004; Littleton & Whitelock, 2005). Although this seemingly more passive form of learning is not highly valued within the social media communities, it is a very familiar model: ironically, it is the expected behaviour of teachers when learning through top down or cascaded CPD models (Kennedy, 2005). People also spectate while getting to know the community. Waiting and listening allows people to judge community norms, see if their concerns are relevant and obtain vicarious support without disclosing themselves (Preece et al. 2004: 203). This enables potential contributors to anticipate the character of response to any posts they choose to make (Preece et al. 2004: 218). Ultimately, the most obvious reason for a lack of visible participation may be that some members do not feel the need to post: they simply "don't have anything to say" (Lu & Curwood, 2015: 446).

However, the reasons for making the choice not to visibly participate may not be this simplistic. Users of these online spaces may lack the autonomy to make this choice freely due to the restrictions of other factors. One such reason is the fear of judgement within a social climate of comparison (Littleton & Whitelock, 2005). In their case study of an Open University forum group, Littleton & Whitelock (2005) found that students were very sensitive to the quality of their contributions relative to their peers. Messages appeared to be used as a source of informal feedback and a means of gauging "where everyone is at" (Littleton & Whitelock, 2005: 15). The competitive environment of the classroom established during early schooling had migrated with the students to the online learning spaces in which they now found themselves (Littleton & Whitelock, 2005: 15). This is an interesting finding as it examines what happens when the cultural norms of different congregational learning spaces collide. Online spaces are often present as democratic in nature: the learning that occurs within them is non-hierarchical and rhizomic, collaborative rather than competitive (Cormier, 2008). Yet the online spaces in which people participate do not exist apart from the world, they are part of a wider trajectory of social experiences. It makes sense that the cultural norms learnt in other spaces will be brought to bear on the interactions that members initiate and experience online.

Fear of judgement from others, of contributions being perceived as weak or worthless, is also presented as a powerful inhibitor of online collaboration for teachers (Clarà et al. 2017). This is particularly true for less experienced teachers, such as trainees, who feel that they lack the experience and expertise for their posts to have value (Lu & Curwood, 2015). This uncertainty is compounded in massive online communities in which large numbers of users are holding multiple conversations simultaneously. These "networked publics" can have large and sometimes invisible audiences. In these spaces "comments are not simply a dialogue between two interlocutors, but a performance of social connection before a broader audience" (boyd, 2010: 45). Members can feel that they are not aware of all that is being said and done in the community, or who they are addressing (Clarà et al. 2017). This results in a dilution of trust – a problematic issue since it hinders both participation and collaborative reflection (Clarà et al. 2017: 90).

Yet, although spectators may feel inhibited to participate publicly, they still perceive themselves to be part of the online community. They may enter the space habitually, empathize with the stories and posts that they read, seek answers to questions, identify with community concerns and see themselves as members (Preece et al. 2004: 203). They may not feel the same level of group belonging, or value the contributions of others as highly as those who participate more actively, but they are attending, they are present within the same space (Baym, 2010). There is

little within the literature about how spectators benefit from this quieter form of participation, or how teachers are expected to make the shift from a form of professional development which values passive reception of knowledge, to one in which active co-construction of learning within a public space is the norm.

Recently, ethnographic research into people's use of social media has argued that it should not be seen primarily as the platforms upon which people post, but rather as the content that is posted on these platforms (Miller, 2016: x). If one considers what sites such as Twitter actually are, they are the content that fills them, not the code that structures them: the millions of tweets, the interactions, and the social and emotional consequences for users (Miller, 2016: xxv). And, when reflecting on the role that these online spaces play in the development of teachers it is similarly the interaction that matters: the choices that teachers make about how to participate and how this participation contributes towards their professional learning. These are social spaces that are constructed by the interaction between people: they are structures of recorded collaboration, built one post at a time. However, when trying to assess the potential worth of social media spaces for teacher development we cannot view them as structures apart from the everyday world. They are embedded within the lives, workplaces and careers of those who use them. Miller presents social media spaces as "another space in which we live" (Miller, 2016: 7); likewise, social media spaces could be another place in which teachers work and develop, in which they congregate to advise, support, inform and learn from each other. If we return to McGregor's argument that the school is more than the physical building in which relationships are enacted – it is also the product of the inter-relations that exist within and around it (McGregor, 2003), then the interactions that construct the institution may have been enabled by social media technologies to expand the margins of the workplace exponentially to include all those who wish to participate online.

2.8 Summary

The review of research literature in this section has considered how the discussions that take place at the margins of the workplace function as a form of collaborative professional development and how these discussions may just as easily occur in the groups and conversations online as in the staffroom or the corridors. Knowledge is co-constructed, and social and emotional support is offered and received in all of these liminal environments. However, from the review of the literature, it is also clear that more research needs to be done on how teachers choose to participate in these online spaces and why they choose to participate in this way. It is difficult to

know from an analysis of any site or platform who is present in these social media spaces, or the barriers they may be experiencing in benefiting from interaction unless the users themselves are asked and have an opportunity to explain their experience.

The next section now turns to the concept of participation itself: what participation involves, how participation contributes to a sense of professional identity and how this extends across the multiple online and offline contexts in which participants live and work.

Chapter 3 Theory

The conceptual framework outlined within this section details how theories of participation deepen our understanding of collaborative professional learning online. Participation is explored as a complex concept, a combination of doing, communicating, thinking, feeling and belonging (Hrastinski, 2008). These participatory actions and experiences are specific to each local online or offline context, but also inter-related, as the concerns of one context may influence actions in another (Dreier, 1999). Ultimately, this section explores how no context of participation can be viewed in isolation, and when considering a person's participatory choices, including the choice not to visibly participate online, it is important to bear in mind how the inter-related contexts of a participant's professional and personal life may influence, motivate or restrain the forms of participation that they are able to enact.

3.1 Typologies of Online Participation

Due to the multi-modal affordances of social media platforms in which users are able to contribute through the sharing of photographs, video, emoticons, links to other webpages etc. (Crook & Lewthwaite, 2010), the term 'discussion' needs to be considered to apply to the multiple forms of participation and interaction online rather than the narrower definition of verbal communication. However, to examine teachers' participation in professional discussion spaces online, it is also important first to investigate what is meant by the term participation. This is especially pertinent when the term is being applied simultaneously to more than one context, as it is in this study to both the professional community context - the being and acting in role as a teacher- and the immediate context of use - a participant user of social media. It is precisely this interplay which makes the concept complex, and this complexity has not been recognised in current theorisations of participation in social media and online environments. A theorisation of participation is therefore set out here that considers how theories of community participation apply, the limitations of current typologies of participation online, and how we can move forward to create a conceptualisation of participation that helps us to understand how participants negotiate the demands of multiple social contexts.

The most prominent theory of professional and community participation is that of legitimate peripheral participation constructed by Lave and Wenger (1991; see also Wenger, 1998b). In this theory of situated activity, learning is a socially constructed process. It is through increasing participation in a community of practice that the relevant knowledge and skills needed to be

considered competent are mastered and full membership of that community can be achieved (ibid). Most simplistically, this definition of participation presents learning as a form of apprenticeship and sketches the trajectory of a community member as they move from the position of 'newcomer' to that of 'oldtimer' (Lave & Wenger, 1991: 29). Participation within the community of practice teaches participants to master the overt and tacit knowledge, the skills that need to be learned and also the implied or more subtle behaviours, or as Gee (2014: 34) would term it, the 'large D' Discourse - the forms of "acting-interacting-thinking-valuing-talking-(sometimes writing-reading)", needed to take on a situated identity as one of the group. In terms of the kinds of activity that constitute participation, the definition here is wide. In later research Wenger takes the Webster's dictionary definition as a starting point. Participation is "to have or take a part or share with others (some activity or enterprise)" (Wenger, 1998b: 55). Yet the concept is also presented as being a "more encompassing process of being active participants in the practices of social communities and constructing identities in relation to these communities" (Wenger 1998b: 4). This second definition correlates the concepts of active participation and identity construction; a synthesis that is also implicit in the movement from newcomer to oldtimer, from being a stranger to someone who has become an accepted member of the community by learning how to be one of them.

The suggestion here is that community membership is the goal and that this is achieved by increasingly full participation. Whilst this is relevant for certain workplace or community contexts (such as that of apprenticeship, or membership of a support group, as exemplified in Lave & Wenger, 1991), it is not as applicable to contexts such as social media in which interaction does not necessarily build towards cohesive communities of practice and membership can be looser and transitory. Lave & Wenger (1991) do recognise that participation is complex, that it may take different forms and are careful to note that all of those forms are 'legitimate' even those that may not consist of full involvement within the community. For example, the partial participation of newcomers, located at the periphery of the community is presented as a "way of gaining access to sources for understanding" (Lave & Wenger, 1991: 37). Indeed, Lave & Wenger suggest that there "may be no such thing as 'central participation' in a community of practice instead there are multiple, varied, more-or-less engaged and -inclusive ways of being located in the fields of participation" (ibid). Yet this claim of inclusivity is at odds with the proposed goal of learning as increasingly full integration within a community and this tension is revealed when the concept of legitimate peripherality is examined. For Lave & Wenger, peripheral participation is empowering only when it acts as a staging post for "more intensive participation" (Lave & Wenger, 1991: 36).

As a place in which "one is kept from participating more fully", it is a "disempowering position" (ibid). Participation as a mechanism by which learning occurs within communities of practice is therefore not broad enough to apply to contexts in which full membership is not the ultimate aim. In online communities, which are amorphous, and in which learning goals or shared aims are not clearly defined, a broader conceptualisation is needed that recognises the complexity of these new participatory spaces.

One conceptualisation of participation, constructed specifically for online social activities, is documented by Preece et al. (2004) and Preece & Shneiderman (2009) in their survey and theorisation of online participatory practices. This research examines the reasons behind peripheral participation or 'lurking' and explores how this can progress towards fuller integration within online communities through a typology of participatory practices. Preece & Shneiderman (2009) recognise that as the culture of the internet moved from information transfer to socially and communally generated content, attitudes towards those who chose not to make a visible contribution hardened. The term 'lurking', used to refer to those who participate in more peripheral ways, such as reading, carries sinister connotations and although there may be multiple reasons, some benign or even altruistic, why participants choose not to contribute, often there is also the perception that some may just be "unsociable or selfish" (Preece, et al. 2004: 203). Preece & Shneiderman (2009) suggest an alternative theory for conceptualising participation in online communities, and present a typology of roles that sketches the differing contributory practices of online participants, progressing from Reader to Contributor, to Collaborator and then Leader. For example, 'Readers' are potentially novice users or those who browse and seek information; 'Contributors' commit to an "individual act that adds to a larger communal effort" such as adding a picture or a comment to a website (Preece & Shneiderman, 2009: 18). 'Collaborators' and 'Leaders' develop relationships, work together, set goals, and achieve leadership by promoting the participation of others (Preece & Shneiderman, 2009).

This model does seem to attribute greater purpose to those on the periphery – 'Readers' are presented as willing to learn, not refusing to contribute. However, similarly to Lave & Wenger's (1991) 'newcomers' they are also presented as participants in waiting, biding their time until they can progress up the participatory chain. Preece & Shneiderman (2009) recognise that progression through these roles are not applicable to all, only a small minority become leaders, and the trajectory of participation is not always linear - more complex trajectories of involvement are also described in which participation can grow or wane (See Figure 1). However, one issue is that

underlying this typology of roles is an assumption that increasingly active participation can be equated with growing maturation – a process that is presented as beneficial for the individual and also, more widely for the online platform or community which grows with the added content provided by contributors or collaborators. This is problematic, as not all participation progresses in a linear fashion towards increasing contribution and involvement, and not all users online wish to be involved in the realisation of collaborative goals.

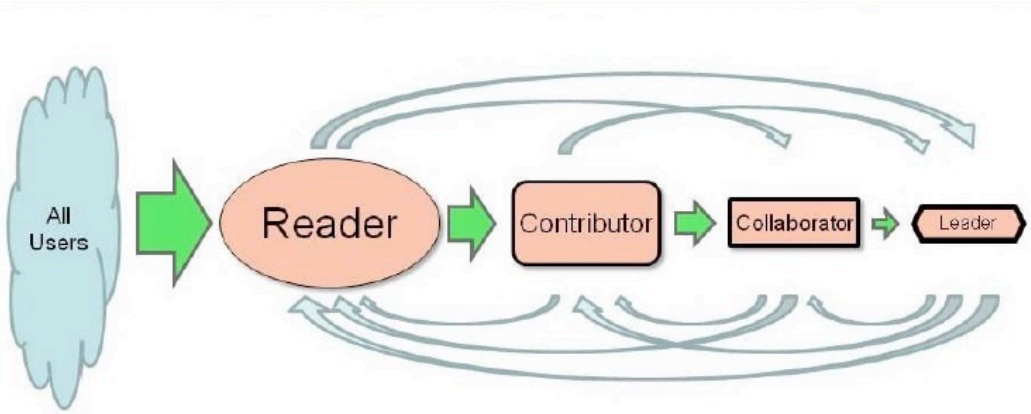


Figure 1: The Reader-to-Leader Framework: Motivating technology-mediated social participation. As users become aware of social media they become readers. Some will become contributors, then collaborators, and possibly leaders.

Figure 1: The Reader to Leader Framework. Preece & Shneiderman (2009)

There are many different typologies which similarly document the various participatory roles or behaviours demonstrated by online users: in addition to Preece & Shneiderman's (2009) Reader to Leader framework, Strijbos & De Laat (2010), in a qualitative analysis of the computer supported collaborative learning (CSCL) of students in a Masters e-learning group, suggest participant roles of Lurkers, Hangers-on, Generator, Pillar, Ghost, Free-rider, Overrider, and Captain; Khoo & Forrett (2011) list Socialite, Encourager, Coordinator, Mentor, Seeker and Resource Contributor from the different participatory behaviours evident from a case study of a semester-long online graduate course. These two typologies use different names for the types of participants they delineate but the common threads between them are that the participatory behaviours of online users are examined without reference to any wider context outside of the online environment, and those who participate the most are presented as the more committed and altruistic members of the group. For example, Strijbos & De Laat (2010) comment that Free Riders place a strong emphasis on external factors (i.e. work or other courses being studied), to make a claim for special treatment, or 'lurkers's' contributions similarly "contain false promises or they reflect some problems that she/he had in the past, aimed at apologising for a lack of commitment to the group" (28). Non-visible participants are still generally portrayed as selfish:

they are presented as choosing to remain a group member merely for their own "personal learning gain" (ibid). There is little recognition here that the participatory behaviours of online users may be influenced by factors beyond the screen, or of the potential validity of the competing tensions that exist between the different communities in which they participate. As with Lave & Wenger's (1991) communities of practice model, successful learning is correlated with "increasingly active participation in the valued activities of a community" (Khoo & Forrett, 2011: 124), therefore non-participation, peripheral participation, or even less visible participation are equated with a failure to demonstrate learning goals and also a failure to help other members of the community achieve shared aims. This narrow focus on particular online communities may be why the wider contexts that participants exist and work within are not recognised. However, the definition of acceptable participation here is narrow: if non-visible participatory practices are not valued, there is danger that silence (or a lack of visible contribution) is equated with a lack of learning or willingness to learn.

3.2 Participation in Learning Environments

In order to examine participation more fully as a concept, it is important to go beyond online spaces and consider other learning environments in which certain types of participation are valued more than others. A clear correlation would be the physical environments of the classroom in which a willingness to contribute vocal responses is perceived as a commitment to the learning process. In a qualitative study of the students' experience and perceptions of being silent in the classroom, Reda (2009: 4) challenges the paradigm that places the "vocal, 'active' student" at the centre of classroom activity and prioritises this participatory behaviour as an "integral part of the construction of knowledge". Reda argues that contemporary educational theory, rooted in the work of Dewey and Freire, is premised on the notion that learning is 'active participation' (ibid). However, this perception of learning as collaborative and dialogic can be reductive if collaboration and dialogue are always considered to mean specific forms of participation, for example, speaking or contributing to discussion. If, as Freire stated, "without dialogue there is no communication, and without communication there can be no true education", what is happening to those who do not want to join the conversation (Freire, 1970, in Reda, 2009: 4)? Reda (2009: 9) argues that students who choose not to speak are described through "a rhetoric of failure": these students are seen by what they do not do rather than by what they choose to do, and their actions interpreted as either a failure on their part to understand or a failure by the teacher to reach them. Yet, what is commonly absent from the literature are the voices of the students

themselves, and, when asked, Reda (2009: 7) illustrates that students understand their silence in far more complicated ways than is usually ascribed to their behaviour. They see "multiple causes and issues at play in a teacher's request for oral participation and their decisions to speak or not". Most importantly, they construe their silence as an "active presence", a willingness to play the part of listener in the dialogue; yet this participatory choice is usually interpreted as a lack of understanding or passive non-compliance (Reda, 2009: 23). In this research, Reda calls for another, broader, way to think about the notion of 'class participation', arguing for recognition of a form of intransitive mental participation that involves sharing in, or partaking of the discussion. This is a form of participation that removes the dichotomy between active and passive learning, recognising that listening and spectating are forms of engagement, and that learning might not always be visible.

This more complex understanding of the nature of participation is recognised and applied to social media environments by Hrastinski (2008, 2009). In this theorisation, online learning is still equated with online participation, but the form that participation takes may not be manifested as written text on screen. Hrastinski (2008: 1760) goes beyond the formulaic typologies of contribution to include reading, listening and "vicarious learning" (learning that occurs though observation of other learners engaged in active dialogues) as valid forms of interaction. Further, as Hrastinski (2008: 1760) points out, it is perhaps surprising that these are not more frequently recognised as valid participatory behaviours as computer-mediated communication often has a 'many-to-many', rather than a 'one-to-one' form. It is implicit within this model that learners might benefit from reading to listening to their peers. It is not possible, or desirable, for everyone to speak at once.

In Hrastinski's theorisation, participation is not merely a series of sequenced actions or contributions, it is a social process. It is allied with Wenger's (1998b: 55) definition in recognising participation as "a process of taking part and also maintaining relations with others", which could constitute doing, talking, thinking, feeling and belonging (Hrastinski, 2009: 80). Participation involves both action (e.g. talking with someone) and connection (e.g. feeling that one takes part). This much wider conceptualisation not only presents participation as a more inclusive holistic process, but also expands the space in which it happens. Just as Wenger argues that learning and participation is something that cannot be switched on and off, we continue to participate socially in response to people even when we are not engaged directly in conversation with them,

Hrastinski (2009) states that online learner participation is something that occurs both on and offline. The thought and reflection that underpin the learning continue across contexts.

One study that recognises the interplay between personal and professional contexts is Fox & Bird's (2017) study of how teachers negotiate the tension between personal and professional identities. This qualitative component of this mixed-method study interviewed 12 teachers to identify the challenges that teachers face when using social media professionally rather than personally, using a theoretical framework that recognised that a professional identity continues across social contexts (ibid). The evidence from these interviews found that there is a blurring of contexts, with teachers using social media to enhance offline connectivity, and merging their professional and personal 'i-positions' (Fox & Bird, 2017). Although it is recognised that the blurring of personal and professional positions is not an issue unique to social media, but is "a value judgement teachers will make about all colleagues" and their relationships with them (Fox & Bird, 2017: 12), this research suggested that social media presents new tensions about "whether, how, when and with whom to engage with using social media and on what bases these connections and interactions are being made – whether as an individual (personally) or a teacher (professionally)" (Fox & Bird, 2017: 14).

It is this element of a wider contextual understanding that is missing from more simplistic typologies of online participation; those that consider online roles to be somehow separate from the wide and varied constellation of online and offline contexts that people move through during the course of their daily professional and/ or social lives. There is a complex interplay between these different contexts and it is this interplay, this intercontextuality, that needs to be built into theories of online participation. An intercontextual focus is of particular relevance to the analysis of teachers' professional participation within online contexts of learning because in these circumstances there is more than one context involved. When participating as professionals online, teachers are simultaneously inhabiting not just the online space which they have chosen to access, but also the professional role which they inhabit in their working life. As Wenger (1998b) details, participation does not necessarily involve interactions with others; the sense of accountability to your community remains even when you are working alone. Therefore, a teacher's participation in online spaces is guided by both the norms of the socio-technical context in which they are presently interacting, and the professional standards of their school-based role. As Fox & Bird (2017) acknowledge, currently, there is very little explicit effort to hear teachers' perspectives in the debates that surround professional use of social media. It is important to recognise that spaces for discourse between teachers both online and offline are needed, and

that this discourse is important for professional growth and identity development (ibid). However, the expectations of participation within online communities, and those of the workplace do not always neatly align. When seen through a professional contextual lens, full participation in an online community may not be easily correlated with altruism or commitment. Overt expression of opinions or the free sharing of information and resources may conflict with institutional expectations. Social media use in general may not be seen as a valuable use of time, and consequently participation online may be viewed as having an opportunity cost that is detrimental to work based practices. Currently teaching does not seem to be a profession that is "taking a proactive and strategic view to the value of social media for educational purposes" and teachers perhaps need further support to develop a clear sense of how they might participate in professional development opportunities within social media (Fox & Bird, 2017: 671).

3.3 Digital Labour

An additional factor that problematizes the notion of participation within online communities for professional purposes, is how far this participation is recognised as work. This is an area discussed by Rensfeldt et al. (2018) in an ethnographic and computational examination of a large Swedish Facebook group (over 13,000 members) used by teachers for professional development purposes. Although Facebook groups offer a valuable source of support, providing access to resources, knowledge and guidance from other participants (Macià & García, 2016), the time and effort invested in producing and consuming the content shared with the group is unpaid (Rensfeldt et al. 2018).

Another factor with 'virtual labour' is when and where the work is done. If participation online for professional purposes is not recognised as "proper work" (Primorac, 2016: 161), then it is unlikely that schools will allocate the time or opportunities necessary for this work to happen during the school day (Rensfeldt et al. 2018). This is complicated further because social media accounts have become part of the repertoire of tools used by schools to communicate with the wider school community: teachers may use Facebook or Twitter to celebrate schools success, contact parents, or share resources with other teachers in partnership schools (McCulloch et. al, 2011)[3]. Yet, despite the overt use of these platforms for work purposes, engagement with social media is something that usually happens during teachers' 'free' or 'leisure' time (Rensfeldt et al. 2018: 17). This can potentially result in a situation where the use of social media for professional purposes

[3] See also, for example, the guidance from the Times Educational Supplement on using a school Facebook account: https://www.tes.com/news/seven-tips-schools-using-facebook [accessed 5 October 2018]

results in an “incursion” of work into teacher’s personal and social lives, reducing the opportunities available for teachers to switch off or disengage from their working life (Rensfeldt et al. 2018: 17).

Although teaching has always been an “all-encompassing profession that relies on over-work” (Rensfeldt et al. 2018: 18), the inclusion of online social sites as another space in which teachers work, or participate within to develop their working practice, has collapsed the boundaries of home and school still further. This collapse of contexts means that it is more difficult for teachers to maintain spatial, social and temporal boundaries (boyd, 2010), or have the work that is done online recognised as such when it is performed outside of the school building, or beyond the school day.

These issues lead to a new consideration of how participation online fits into teachers’ personal and professional lives and require schools to recognise the new complexity with which individuals must now “approach and make sense of their own labour” (Hughes, 2014: 652).

3.4 Theorising Intercontextual Participation

The intercontextual approach used to guide the research in this thesis allies two theories on the nature of participation: Dreier’s (1999, 2003, 2008) theory of the person as participant in structures of social practice, and Miller et al.’s (2016) understanding of social media, and participation within social media, as an integral part of everyday life. As Dreier (1999) argues, social practice is not homogenous, it consists of “diverse, inter-related, local social contexts of action” (7). It can therefore only be understood through its inter-relationships with other contexts in the structure of social practice (Dreier, 1999: 7). However, when participants act within specific contexts they do so with particular, local concerns in mind. These concerns may not be related to the immediate context which they currently find themselves within; their participation may be related to concerns in other parts of their lives in other contexts (Dreier, 1999). When applied to the specific area of teachers’ professional learning this theory then enables an understanding of the various forms of online participation as characterised not by the immediate participatory behaviours being demonstrated by the teacher in that immediate context, but also driven by and concerned with wider professional needs and goals. For example, spectators cannot simply be understood as participants who lack commitment to an online community, but are instead positioned as participants who are negotiating the balance of their contributions to the various communities and social structures of which they are a part.

Participation is therefore multiple. It occurs within diverse, local, social real-world contexts and it occurs in diverse, local, social contexts online. A feature of the increasing modernisation of society has been the "pluralization of lifeworlds" which have become more "diverse and segmented" so that "individuals typically move between different milleus or locales in the course of their everyday life" (Giddens, 1991: 83). Likewise, a feature of the development of the social media environments in which we participate in has been a pluralization of contexts – people participate in a large number of different online environments which interconnect in multiple different ways. This theory of polymedia (Madianou & Miller 2012; Miller et al. 2016) argues that it is not possible to understand any one platform or media in isolation: they must be seen as relative to one another, since today people use a range of platforms for a range of forms of interaction (Miller et al. 2016: x). Therefore, analysing the use of one online platform or community in isolation from the communities which surround it, whether virtual or physical, creates a picture of a participation that is incomplete. Participation in these multiple, varied contexts does not look like a linear trajectory towards increasing full assimilation into the community: it is a web of competing tensions with participation in one connecting to and constraining participation in another.

In line with Miller et al. (2016), the research in this thesis rejects a notion of the virtual as a different world and views it as integral part of working life, in the same way that the place of the telephone conversation is understood as part of offline life and not as a separate sphere (Miller et al., 2016: x). Teachers are conceptualized as participants who engage in a plurality of interconnected online and offline contexts for a variety of reasons. The aim of this thesis is to investigate how teachers negotiate this participation for the purposes of professional development, how they make choices about the forms their participation takes, the reasons that inform these choices and what they gain or lose in the process. The forms that participation takes are therefore diverse. The choice to participate by being present in a discussion space is a different form of participation than choosing to speak, or write, but equally valid. Even an isolated critic, choosing to stand outside a particular social context, is a participant in particular relations of isolation and powerlessness in a given social practice (Dreier, 1999), and it may be that the factors that constrain participation are those that prove to be most worthy of further investigation. This thesis recognises participation to be a socially complex phenomenon, best suited to a qualitative understanding and "process of coming to grips with the multiple of people who are the main participants" (Reda, 2009: 11). The theorization of participation employed in this study therefore corresponds with Hrastinki's definition comprising of "doing, communicating,

thinking, feeling and belonging, which occurs both online and offline" (2008: 1761), but extends this to consider how the inter-related contexts of a teacher's professional working life both online and offline, guide, influence, restrain or trammel the forms of participation that participants are able to enact.

3.5 Dreier: Participation and Identity

Writing within the theoretical paradigm of Critical Psychology, Dreier (1999: 6) considers all persons to be "always situated in local contexts of social practice" and argues it is only possible to understand them "by asking what it is they are a part of and how they take part in it". This conceptualization has radical implications not only for our understanding of the concept of participation and its importance, but also for theories of the self as it rejects the "integrated and coherent unit" of identity (Dreier, 1999: 22), and replaces it with "contextual understandings" of how subjects vary in their modes of participation as they move across diverse contexts (Dreier, 1999: 10). The self is therefore flexible: subjects participate in multiple contexts, in "diverse ways" and will lead "multi-dimensional lives" (Dreier, 1999: 11). The self may also lack consistency: the differing demands of the different contexts that subjects interact within means that participation in one situation may not mirror participation in another; indeed, the "practical complexity of persons' lives" means that people participate in "different ways in different contexts and have different reasons for doing so" (Dreier, 2009: 196-197). This theorization of participation seems to make any understandings gleaned from any given situation simultaneously both less useful and more important. Less useful because, if all participation is bespoke only to one particular context, then it is difficult to generalize that the actions of a person in one situation will be relevant to any other. More important because if participation within social structures is the mechanism by which we construct and realise our "diverse potentialities" then there is nothing which is more worthy of our attention (Dreier, 1999: 11).

Dreier is not the first to perceive the self as a diverse and socially constructed entity. This conceptualization has a long tradition in feminist theory, which recognizes the self as socially constituted rather than innate (Gonzalez-Arnal et al., 2012). For example, in Judith Butler's (1988: 522) discussion and extension of de Beauvoir's (1986) presentation of gender as a "historical situation", gender is entirely constructed through socially situated "performative acts", and "political and cultural structures are enacted and reproduced through individual acts and practices". This is equivalent to Dreier's assertion that ideas about "abstract individual agency"

must be replaced with a contextual understanding of “personal modes of participation and potentialities” (1999: 10). Both Dreier and Butler understand the term identity to relate to a “particular subjective composition” of participatory or performative practices and reject notions of the self that exist separate from the social structures in which these performances or participations take place (Dreier, 1999: 21).

The closest correlation to Dreier’s own theories on the diversity of the self and its relation to social participatory practice is, however, seen in Griffiths’ (1995) argument on the creation of self-identity. Griffiths presents the construction of identity as an autonomous process, but a process that takes place within the various communities of which the participant is a part (Griffiths, 1995). The self is therefore in a continuous process of construction, over which the individual only has partial control because the creative process is collective, constrained by circumstance and by “the overlapping, various communities, each of which is itself changing” (Griffiths, 1995: 93). This is a plural, fluid self and rejects wholesale the stable concept that is usually meant by the term ‘identity’: “there exists no unity of the self, no unchanging core of a being ...authenticity requires re-assessing the changing self, not preserving a sameness” (ibid: 185). Griffiths’ preferred metaphors for this conception of the self are webs (understood here as tapestry, weaving, and crochet, rather than a spider’s web) or patchwork, each suggesting a combination of small component parts that together combine to make a constructed whole. Webs are “always made in a temporal and social context”, and “just as webs are made in context, an ever-changing context to which the new web contributes, so selves are always in a process of becoming” (ibid: 178). Patchwork expresses the variety, “the confusion, colour, hotchpotch, kaleidoscope; medley, motley and harlequin” of selves that are constructed through diverse participation in a variety of social roles and practices (ibid: 191).

However, whilst Dreier recognises the correlation between his own theories of the self and Griffiths’ feminist perspective, he also argues for a more cohesive sense of identity than Griffiths’ fully fragmented self. As Dreier (1999) states in a riposte to Griffiths, living this way would be to exist as a perpetual chameleon: a “deeply problematic and disorientated state of affairs” (Dreier, 1999: 28). Dreier creates coherence between the “diverse claims and memberships” (Dreier, 1999: 28) of the differing social contexts by binding them together with the glue of personal stances – standpoints that identify what participants stand for, provide consistency and guide them to act flexibly in different situations to achieve aims and goals (Dreier 1999, 2009). Whilst persons must vary their modes of participation by taking the various arrangements of local

contexts into account, they must also shape their lives and pursue their concerns, including those for learning, by linking and combining their diverse participation in diverse contexts into particular personal stances (Dreier, 2008). In workplace contexts, such standpoints seem analogous to concepts of professional values. Professionally, these stances can be recognised in both the internal, tacit understanding of what it means to be, or behave, as a teacher, but also, in an external written form in documents such as the Teacher's Standards, which promote certain modes of conduct such as acting with "honesty and integrity"; being "self-critical"; or forging "positive professional relationships" (DfE, 2012: 7).

Within the context of teacher professional development through use of social media, this concept of a personal or professional stance that guides participation in diverse situations makes sense. If a person is participating as a teacher, with the concerns of that role acting as a guide that influences the kinds of information that is sought, or issues that are discussed, then the self is not fully fragmented – there is a greater coherence or purposefulness to the participatory practices being enacted. It may also be that the person is not entirely free to pursue certain interests and concerns online because the professional expectations associated with being a teacher restrain certain forms of behaviour on social media (e.g. posting personal photographs online or commenting on recreational activities at the weekend). Stances in this context correlate with Wenger's definition of participation in a community which is ongoing, regardless of subsequent contexts and that continues even when we are not directly engaging in specific activities with specific people (for example, claims processors are not just claims processors just while they work in the office, their participation is not something they simply turn off when they leave, it is part of who they are, that they always carry with them) (Wenger, 1998b). This perspective would also hold true for teachers: they are teachers and carry this with them, whether they are at work, at home, or interacting online.

3.6 Empirical Use of Dreier's Theoretical Constructs

Empirically, Dreier's theories of participation across social contexts have informed research into diverse contexts ranging from the participatory practices of children in early years provision (Payler et al. 2016), to the study of a young person's developing expertise in gaming practices (Bricker & Bell, 2012), to evaluation of the interprofessional CPD provided across education, health and social care settings (Payler et al. 2007).

The work of Bell et al. (2012) and the allied research of Bricker & Bell (2012) use an ethnographic approach to examine the learning of children and young people both in school and in out of school environments. In this research, three team ethnographies were conducted over an extended period of time (8 years), and over multiple contexts, focusing on how the social practices that the children participated in developed, or limited, the development of expertise (Bell et al. 2012). In Bell et al.'s study (2012), Dreier's theories are used to establish an understanding of learning across settings and how these contexts can be "re-produced and changed by their participants and separated from and linked to other social contexts in a more comprehensive structural nexus of social practice" (Dreier, 1999: 195, referenced in Bell et al. 2012: 272). One example of this in Bell et al. (2012) is the case study of a beginning debater who, as an African American male with a learning disability, struggled to participate in local tournaments and have his expertise recognised by either his coach or his team mates. It was only after receiving outside coaching with a different instructor that the young person was able to achieve success in a tournament and be accepted and celebrated by his team mates (ibid). By applying Dreier's theoretical lens to this context, this research developed an understanding of how "self-perceptions and the perceptions of others interact and influence one another in complex ways in the midst of connected constellations of situated events," and how, "multiple structures of social practice (e.g., around disability designation, racial membership) can reinforce marginalization and exclusion for learners from historically non-dominant groups" (Bell et al. 2012: 280).

Similarly, Bricker & Bell (2012) apply an ethnographic approach to the study of one youth's development of expertise in gaming practices, across contexts and over time. Dreier's (1999) and Lave's (2009) theories of learning are used within this study to argue for the importance of examining people participating within a situated context and activity (referenced in Bricker & Bell, 2012). In this case study, the youth's expertise in gaming was observed developing within "nested contexts": the context of the computer game (and the interaction with other gamers), within a supportive home context that valued technology and gaming practices (Bricker & Bell, 2012: 893). Ironically, the context which least supported the youth's growing expertise was the school environment, which was unable to recognise the young person's developing identity as a gaming expert or value the ways in which he adapted the tasks set within lessons to match his interests and skills (Bricker & Bell, 2012).

Payler et al. (2007) outline the development of a conceptual framework to guide the evaluation of the provision of inter-professional continuing professional development (CPD) for professionals in education, health and social care services. This paper draws on Dreier's (1999, 2002) concept of trajectories of participation, particularly Personal Action Potency, to develop a theory of inter-professional learning that argues that learning is shaped, not only by individual agency but also "by the resources and constraints of societal arrangements influencing individuals' potentialities and personal modes of participation" (Payler et al. 2007: 18-19). This theory is of particular relevance to inter-professional working within education, health and social care because "participants hold different types and levels of status and power in services relating to children and families, thereby potentially impacting upon participation and learning" (Payler et al. 2007: 19), and is also demonstrated empirically in subsequent research into inter-professional practice in early years environments (Payler & Georgeson, 2013; Payler et al. 2016).

In subsequent research, Payler & Georgeson (2013) employ a case study approach to analyse the interprofessional working practices of 5 early years settings providing care for children with special educational needs. The study uses Dreier (1999, 2003, 2008) to analyse participation across contexts and to consider how acts are linked into personal trajectories of participation (Payler & Georgeson, 2013). The findings of the research indicate that the structural arrangements, interpersonal relationships and history of working practices influenced participants' participation but were not entirely deterministic (ibid). There was variation between the settings in how successfully different participants cooperated and developed inter-professional working practices; therefore, the study concluded that inter-professional practice is a shared rather than individually developed capacity in early years settings and can be enabled through valuing the expertise of early years staff, and enhancing the potential for them to act and collaborate with staff from other settings and agencies (Payler & Georgeson, 2013).

Payler et al. (2016) also uses a case study approach and the same settings as Payler & Georgeson (2013) but this research focuses on the participatory practices of the children rather than the staff and aims to develop an understanding of how children participate in and shape integrated service provision. Dreier's conceptualisation of trajectories of participation across contexts (2003, 2008), was used here to unify and guide the analysis of digital video recordings that show children participating in inter-professional practice. The multi-modal data collection enabled consideration of the "fine-grained dialogic micro-processes at the interface between young children's agency and expert practice", as it recorded the children's comments, movements and the responses of

the early years practitioner (Payler et al. 2016: 23). This multi-modal format was particularly relevant to the context of the study because some of the children were non-verbal and therefore expressed agency through bodily movement. On analysis of the data, the research found that through their participation, "children added to the fund of personal action potency (Dreier, 2003) in the setting, working in partnership with practitioners to shape and tailor inter-professional interventions to their needs" (Payler et al., 2016: 23).

Overall, the empirical use of Dreier's theoretical constructs in these studies indicates that this approach can inform understanding of how learning develops across "constellations of situated events" and diverse social contexts (Bell et al. 2012: 275). Of particular relevance for this research is the inter-contextual approach that is implied in Bricker & Bell's (2012: 893) discussion of "nested contexts": the nesting of the game playing within the supportive home environment (or the nesting of the game playing within the school environment) is analogous to the nesting of use of social media within the context of a teacher's wider professional role, and demonstrates that this approach can yield insights into how the inter-related aspects of different contexts guide, enable, or if the example of the school environment is considered, limit participation. Payler & Georgeson (2013) provide an example of how Dreier's (2003, 2008) theories of participation and trajectories of participation can form a lens through which to examine professional practice. Whilst the early years and inter-professional settings of Payler & Georgeson's (2013) work are different to the online environments examined in this thesis, this approach indicates that Dreier's psychological theories are helpful for analysing participation in inter-related professional contexts. The qualitative nature of the empirical research discussed here also supports the choice of a qualitative methodology in research in this thesis. Both the ethnographic and case study approaches used in these studies enabled consideration of the participatory practices within different contexts, and the choice in each to use qualitative research methods allowed the voices of the participants, and their reasons for their participatory choices to be heard and explored.

3.7 Miller – Rejecting the Virtual as a Separate Context

Within the literature of research into social media, the area that most thoroughly explores the importance of the wider contexts of participants' online and offline lives and social practices is digital anthropology (see, for example, Madianou & Miller, 2012; Miller et al. 2016 and the associated research projects from the Why We Post series). Digital anthropology in general, and specifically the 'Why we Post' anthropological social media research project led by Miller et al.

(2016), espouses a commitment to holistic contextualisation: an understanding that "nobody lives within one topic, or only one role", that "people live all of their contexts together" and "to understand any single aspect of a person's life, one wants to have at least some sense of all the rest" (Miller, 2016: 17). When applied to online contexts, this therefore means that any separation between online and offline contexts is rejected. Miller et al. (2016: 2) consider social media as integral to daily life; it is another place in "where everyday life happens" and is not separate from the relationships that we form in any of our other social contexts just because the communicative practices happen online. They cite the empirical work of Rainie and Wellman (2012), who demonstrated that relationships online are not at the expense of relationships offline. In fact, people who were more connected online had a larger number of offline connections as well. This research by Rainie & Wellman (2012) used a case study of how a couple reached out to their community after an accident to demonstrate that people move between online and offline contexts to form social networks and to develop and maintain relationships. In line with Dreier (1999), Rainie and Wellman (2012: 15) also consider the identities that individuals form to be complex depending on their "passions, beliefs, lifestyles, professional associations, work interests, hobbies, or any number of other personal characteristics" and contextually specific: "these relationships often depend on context, which provides networked individuals an opportunity to present different faces in different circumstances, especially online".

Miller et al. (2016) recognise that this holistic contextual understanding is not the dominant approach within the bulk of social media research, which tends towards investigations of specific platforms and separates online and real-life contexts as separate spheres. Instead, they follow Baym (2010: 71) as perceiving online communication as happening "against a background of a shared history", seeing the "social structures that shape us and our potential manifest in our communication, identities, relationships, communities and networks online just as they do offline". However, this emphasis on the contexts and social structures of the participants who post means that the social media from these individuals and communities (and here, social media should be understood as the content of what is posted rather than the platform on which this content is hosted), is specific to their contexts only, and can lack the wider applicability and more general understandings of usage patterns that quantitative research strives to provide. As Miller (2016: 1) phrases it, "precisely because social media exists largely in the content of what people post, it is always *local*".

This understanding of the specific contextual nature of participant engagement with social media matches Dreier's (2009) theorisation of the myriad complexity of participation in any context. As noted earlier, people will participate in "different ways in different contexts and have different reasons for doing so" (Dreier, 2009: 196-7). This may make the study of their participation more challenging, and findings less generalizable, but any understanding of participants' motivations and purposes is likely to be more complete. Miller et al. (2016: 11) note that "evidence from one population cannot be extrapolated to the behaviour of any other population"; however, the comparisons they draw between the diverse cultural contexts of their ethnographic field studies allow them to develop broader understandings of how social media is used as a component part of their subjects' lives. While my own research is not anthropological in nature and does not use ethnographic methods, it adopts the same theoretical perspective of attempting to understand social media from the perspective of its users (Miller et al. 2016), and thus also adopts a wider contextual understanding when considering the motivations that prompt and guide social media use.

3.8 Miller – A Theory of Polymedia

Just as an online context cannot be considered separate from other contexts that form the social practices of offline life, social media use cannot be studied or analysed as contained within specific platforms. Miller (2016) argues that this is a common misconception in social media research: the study of platforms such as Facebook or Twitter has considered each in isolation and has therefore tried to explain the use of these based on the properties or affordances that the specific platform offers, rather than considering the wider contexts or circumstances that would guide participants' social media use in general.

Miller (2016) and the series of nine ethnographic studies that form the 'Why we Post' series therefore adopt a theory of polymedia. This theory recognises that "no platform can be properly understood if considered in isolation", for "the use of each one is relative to the others" (Miller et al. 2016: 4), and was first developed by Madianou & Miller (2012) based on an ethnographic study of Filipino migrant mothers and the ways in which they communicated with their children left behind in the Philippines. In this research Madianou & Miller (2012) witnessed that Filipino mothers exploited a range of media depending on what they wanted to communicate and how: they texted to see if it is a good time to Skype; they noted something on Facebook, but sent the

details in an email. Their choice of media was dependent on the genre of interaction they wished to engage in.

Similarly, in Miller's (2016: 27) ethnographic research into the use of social media by an English village community, he found that, for school pupils, polymedia "expanded choices and separated out niches". Most of these teenagers had been using five or six different social media platforms from a young age (Miller et al. 2016). A school pupil can enjoy public 'banter' on Twitter, but then retreat to the "private consolations of Tumblr"; "he or she could contemplate and admire images on Instagram and organise fun nights out on WhatsApp" (Miller et al. 2016: 3-4). These choices are driven both by considerations of what the pupil wishes to communicate, but also to which audience. There is a "scalable sociality" at play, in which the participant needs to make a decision regarding how publicly they wish to engage, with an understanding that this decision will expose them to judgement by others and be seen as reflecting the kind of person they are (Miller et al. 2016: 98). Within this ethnographic study Miller (2016) also noted that polymedia applies within, as well as between, platforms. For example, Twitter emerged as a dominant platform within the research, largely because it has been adopted by millions of people for informational purposes. However, the young people encountered in the study use it for peer group 'banter', unaware of its other potential uses. This raises questions about what the 'true' nature of the platform is – the one used for information, or the one used for 'banter' (Miller et al. 2016). Similarly, a social media platform can be used by the same individual but for multiple different purposes. As Miller (2016) notes:

> "When a social media platform becomes dominant and central to an individual's life, there is a decent chance that it will have become effective in this role because in doing so it has been broken up into a series of overlapping but separate genres of usage, each related to a different context. (Miller, 2016: 35)

Therefore, it is possible to take a single individual and trace through the polymedia of these different 'Twitters' (Miller, 2016: 35). This is illustrated within the research with the example of a participant who uses Twitter for two specific purposes: professionally – to seek work for her cleaning business, and personally - to collect information on her abusive ex-husband (Miller, 2016). The pertinent point that can be extrapolated from these examples is that the use of chosen platforms, or usages within platforms, is specific to purpose and context, and that these online social contexts then form part of the "constellations of situated events" and "diverse social contexts" that integrate with the other contexts of a participants' lived world (Bell et al. 2012: 275).

3.9 Social Media as a Discussion Space

As Miller (2016: 20) notes, on social media it is the conversations that matter: "platforms are simply modes by which these are carried out at a given time". There is a need to move beyond thinking about social media as a set of platforms: "it is not necessarily the best way, and certainly not the only way, to understand what social media is" (ibid). My thesis adopts Miller's understanding of social media as an additional space within everyday life that provides the opportunity for the kinds of discussion that have the potential to enrich a teacher's professional practice, similar to the "congregational space" of the staffroom (Mawhinney 2010: 972). However, teacher use of these spaces, and the choices they make about how to participate within them, are embedded within a series of inter-related contexts both online and offline. These differing contexts may call on teachers to enact different purposes, relate to different audiences, or even construct different identities, but none exist in isolation: each is informed by the contexts that surround it or have gone before. The way that teachers interact online may be complementary in aims and outcomes to their practice within classroom and school contexts, or may be contradictory. It is possible that the structures of social media platforms and the modes of participation afforded within them result in a reconfiguration of what it means to be a teacher when that teacher is participating online. Whatever the nature of the participation, "there is a need for *space* for the self to be formed both in and against various communities of others and also out of the material conditions in which it finds itself" (Griffiths, 1995: 142) and discovering whether these spaces are being created by teachers within social media and whether their modes of participation are enriching their professional practice are the aims of this study.

3.10 The Conceptual Framework of this Thesis

Summary: My thesis will explore the benefits and drawbacks of professional development through social media through the use of a theoretical construct that understands participation within social media as an inter-related professional context rather than a separate space.

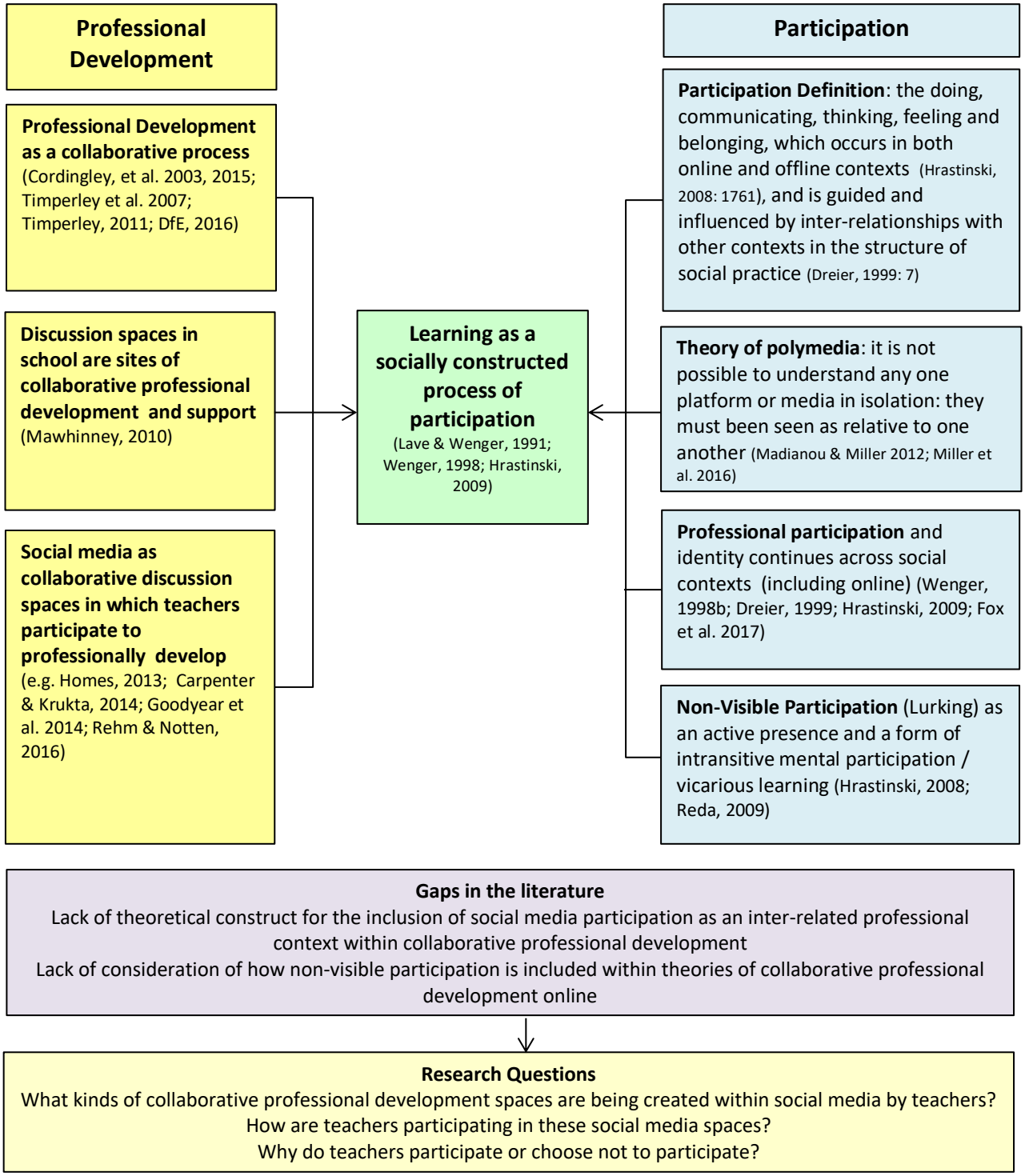


Figure 2: Conceptual Framework

The conceptual framework detailed on the previous page provides a visual representation of the synthesis of concepts that support my thesis. In summary, this thesis explores the benefits and drawbacks of collaborative professional development through social media through the use of a theoretical construct that understands participation within social media as an inter-related professional context rather than a separate space.

The conceptual framework was developed from the theoretical and empirical literature discussed in previous sections. The Professional Development section on the left of the diagram summarises the key aspects of the collaborative professional development literature from both real world and online contexts. The three key elements synthesised into this framework are: professional development as a collaborative process (Cordingley, et al. 2003, 2015; Timperley et al. 2007; Timperley, 2011; DfE, 2016); discussion spaces within school functioning as sites of professional development (Mawhinney, 2010) and collaborative professional discussion spaces within social media (e.g. Holmes, 2013; Goodyear et al. 2014; Carpenter & Krukta, 2014b; Rehm & Notten, 2016).

Learning is understood within the literature as a socially constructed process of participation, whether that is in situated opportunities in the workplace (Lave & Wenger, 1991; Wenger, 1998b), or in social media spaces online (Hrastinski, 2009). The concept of participation, as detailed on the right-hand side of the diagram, is one that extends across contexts, and is guided and influenced by inter-relationships with other contexts in the structure of social practice (Dreier, 1999). This means, for example, that a teacher may be participating on a social media platform but still remains within their professional role, even though the immediate context of participation is different from the school environment. The needs, expectations or restrictions of the school context guide, influence or restrain the teacher's participation. The inter-related contexts that a teacher participates within may include multiple online contexts, and this theory of polymedia (Maniadou & Miller, 2012; Miller, 2016) guides the choice in this thesis to focus on multiple platforms of use, rather than restricting the research to one social media platform. The kinds of participation that lead to learning are not restricted to those forms of participation that are necessarily visible (Hrastinski, 2008; Reda, 2010): learning can be socially constructed even when some participants do not contribute overtly to the discussion. This thesis considers intransitive mental participation (Reda, 2009), or "vicarious learning" (Hrastinski, 2008: 1760), as forms of legitimate participation, and seeks to also represent the views of participants, such as those who spectate, who are often under-represented in social media data sets.

From this synthesis of the literature, it is evident that current professional guidance lacks a theoretical construct for the inclusion of social media participation as an inter-related professional context within collaborative professional development. In the literature social media is presented as a separate developmental sphere and the profession lacks clarity on how teacher use of these opportunities should be included as part of their professional development and the implications this may have on expectations for their role.

There is also a gap within the literature regarding how non-visible participation is included within theories of collaborative professional development online. If, as estimates suggest, non-visible participants make up the majority of virtual communities (Preece et al. 2004), then theories of the collaborative professional development that occurs in online spaces have to take these less overt forms of participation into account. This consideration guides the choice in this thesis to adopt a qualitative methodology, in order to hear voices that may not appear in visible posts, and the methodological choice of approaching users in offline contexts first before investigating the reasons that guide their choices to participate or reserve from participation online. These choices, and the broader implications of this conceptual framework for the methodological choices made in this thesis, are explored in detail in the next section.

Chapter 4 Methodology

The chapter that follows discusses the methodological choices made in the construction of this thesis. I start with a rationale for the overarching qualitative framework of the research and follow with explanation of the methodology that informs the different elements of the research design including the questionnaire design, my choice of interview-based methods, and thematic analysis of data.

This project uses mixed methods, following an explanatory sequential design (Creswell, 2014) but with a balance of components weighted towards qualitative research methods. The smaller quantitative component uses a questionnaire to gain an initial landscape of social media use and identify participants for interview. The dominant component of this project is qualitative and uses interview-based research methods to support deeper exploration of the motivations and perspectives of the participants.

The research processes discussed in this chapter have been chosen to support investigation of the following research questions:

- What kinds of collaborative professional development spaces are being created within social media by teachers?
- How are teachers participating in these social media spaces?
- Why do teachers participate or choose not to participate?

4.1 My Choice of a Qualitative Methodology

This research project adopts a qualitative methodology that is concerned with understanding the participatory practices of teachers in discussion spaces on social media “from the interior” (Flick 2009) and an interpretivist stance, taking the perspectives and accounts of research participants as a starting point and making sense of these in terms of the meanings that participants themselves bring to their “social and material circumstances, their experiences, perspectives and histories” (Ritchie et al. 2014: 4). This thesis understands participation and the motivations of participants as complex and is particularly concerned to avoid over-simplification of non-participation or non-visible participation, as, in line with Reda (2009), this thesis argues that this is an area that needs to be re-defined and expanded. The ‘active presence’ of spectators, or less frequent participators, is often unrecognised and their experiences, constructions and motivations need to be reconsidered. The need to include these less accessible voices was an additional reason for choosing a qualitative methodology.

The choice to adopt a qualitative research methodology has been made despite the wealth of easily accessible social media data currently available for research purposes. We live in a moment of 'big data': it was estimated that in 2014 there were 1.3 billion active Facebook accounts, 0.6 billion active Twitter accounts and 58 million tweets per day (Purdam & Elliot, 2015: 29), and this trend is apparently exponential - 90% of the world's data has been generated in the past 2 years (Sloan et al. 2015: 1-2). These data and the meta-data available from people's routine online and social media use have enormous potential to develop our understanding of both our social world and individual attitudes and behaviours (Purdam & Elliot, 2015). For example, transactional data generated during internet searches has been used to track the spread of flu in the US (Ginsberg et al. 2009); predictive models of box office revenue have been built using Wikipedia activity and Twitter use (Mestyán et al. 2013); social media data has also been used to assign psychological profiles and demographic characteristics to Facebook users based on their vocabulary (Schwartz et al. 2013. See Sloan et al. 2015 for further discussion of the other studies in this area). The study by Sloan et al. (2015) is also an example of how combinations of big data from different areas can be used to develop insight about the circumstances of users and their lives offline. In Sloan et al.'s (2015) research, the meta-data collected through the Collaborative Social Media Observatory (COSMOS: http://www.cosmosproject.net/) relating to UK Twitter users were matched with the occupational lookup tables between job and social class provided by the Office for National Statistics (ONS) to derive the age and occupation of users. The study found that occupation is easier to identify than age, due to the tendency of Twitter users to populate their biography with information about their work and hobbies. However, what the study could not address was why users choose to share this information: why a user would choose to self-identify as, for example, a "Lecturer in social science plus amateur horror writer and keen fair-weather gardener" and what they gain from this form of self-characterisation online (Sloan et al. 2015: 5).

An example of a quantitative study that addresses the area of teacher social media use in particular is Kelly & Antonio (2016). This research described the support that teachers access through Facebook, creating a typology of six different ways that support is accessed, with teachers acting as variously: providers of feedback; modellers of practice; supporters of reflection; conveners of relationships; agents of socialization and advocates of the practical (Kelly & Antonio, 2016). The results of the study found that whilst teachers where keen to act as providers of pragmatic advice, there is a lack of online support for "feedback about practice or modelling of practice, all forms of support that the theory stresses as important for teachers" (Kelly & Antonio,

2016: 148). However, whilst the research was able to identify this gap, it was unable to address why this lack of reflective activity occurred. As Savage (2015: 305) notes, digitalization, and by extension a focus on the digital data, "strips out narrative and accentuates listing and classification" and whilst the use of large-scale quantitative data can draw conclusions about attitudes, trends and patterns, it is not able to provide insight into the reasons why these trends occur.

An additional concern that accompanies the use of large-scale quantitative data from social media sources is that of consent. In both of the studies mentioned above, the participants were unaware that they were participating in the research. Whilst Sloan et al. (2015) recognise that the ethics of using big social media data is hotly debated, they argue that the Terms of Service signed by Twitter users allows the company to share data with third parties, therefore consent has arguably been provided. Similarly, Kelly & Antonio (2016) argue that the choice to study open rather than closed Facebook groups in the research means that consent is no longer an issue because the information has been shared in the public domain. However, both positions are still potentially problematic because in neither study did participants know what they were participating in. Their original social media posts had been made with a different audience and context in mind to that of social science research. It has become extremely difficult to establish who has the legal right to give consent for personal data when this data is often owned by the software companies who have jurisdiction over the content of the social media platform (Hooley et al. 2012: 3). Yet, regardless of the legal niceties, the more pertinent issue is whether the use of the data has bypassed the participants' opportunity to choose whether to participate or not.

In my study, this choice over whether to participate, and how to do so, is a central issue. I therefore started with the person in their local contexts before moving to the data environment that they were interacting within (Flick, 2009). It is also likely that many of the participants who chose to participate less overtly online would not be represented fully in existing social media data, and for all participants, regardless of the form of their participation, their motivations and the influence of the different contexts that guide their participation were rarely visible. Therefore, although my research has an online focus, it started with the participant and only explored their online presence, contexts and reasons for participating as far as they were prepared to share and discuss them. This was one of the dominant factors in the choice of both a qualitative methodology, and also the use of interview research methods.

4.2 Why not Ethnography

In establishing the empirical and theoretical foundations for this research project, this thesis has called on a variety of ethnographic research. Ethnographic studies of social media use, such as Miller et al.'s (2016) 'Why We Post' series, adopt a holistic understanding of participation and foreground the motivations and perspectives of participants in a way that is similar to the aims of this project. Other studies into participation in physical contexts referenced in this thesis, such as Mawhinney's (2010) study of staffroom interaction, or Reda's (2009) reflections on student contributions in class, are also ethnographic in design. This therefore poses the question of why the research design in this project has not followed these precedents.

The choice not to employ the use of ethnographic methods has been made due to the limitations that ethnography would put on the scope of this project. As Miller argues (2016:1), social media is "always local" and specific to context. This was especially true for the schools in this project, whose attitudes towards, and adoption of, social media for professional purposes differed widely from one school to the next. As a solo researcher, the choice to place myself in one particular context, or in a small range of contexts, would have meant that I would be able to comment on teacher use of social media in those contexts alone. This has the potential to be useful, as Mawhinney's (2010), or Reda's (2009) research, has been, however, it would mean that my findings could have lacked wider applicability.

The choice to use a questionnaire followed by interview-based research methods was made in order to ensure that a range of 'local' contexts were accessed and thus give this project wider range. Certain limitations still apply: the choice to sample secondary school teachers means that the social media use of primary school teachers is not documented; the geographical focus on the south coast means that the applicability to other geographical regions is not yet known. However, the range of teachers who participated in this project means that a wider collection of views has been accessed, allowing this thesis to paint a wider picture of participation by adding each of these local perspectives to the canvas. This was also an important consideration in the creation of the theoretical construct in this thesis. The theoretical model needed to emerge in response to the participation of teachers in social media spaces more widely, and not be a representation of participatory practices of a specific context. The choice to use interview-research based methods has enabled construction of a theoretical model based on a range of participant views and contexts, and this therefore strengthens the theoretical and empirical contributions of this thesis.

4.3 Research Design

The choice of research methods used to address the research questions in this thesis are summarised in the table below (Table 1). The first two research questions posed in table below support the investigation of the kinds of professional participation happening on social media - which spaces or combination of spaces are being used - and how teachers are participating - what do they do, when, how often and at what times of day? This information was gathered both through questionnaires sent to teachers at 20 secondary schools (approx. 1300 individuals) and through more detailed interview data sourced from 26 volunteer interviewees. The third research question addresses why teachers choose to participate or not to participate: the factors that motivate and drive their decisions. This question was explored through semi-structured interviews and thematic analysis of responses.

Table 1: Research Methods Table

Research Question	Type of data	Source of data	Method of data collection	Method of data analysis
1. What kinds of collaborative professional development spaces are being created within social media by teachers?	Information/ explanation of the different social media platforms being used by teachers to discuss professional practice	Questionnaire: Teachers from 20 secondary schools (approximate max: 1300) Interview: 26 secondary school teachers	Online questionnaire responses Interview responses	Collation of questionnaire responses Use of questionnaire data to inform interview selection Analysis of interview responses
2. How are teachers participating in these social media spaces?	Information/ explanation of the different ways that teachers participate (e.g. frequency, time, methods of participation)	Questionnaire: Teachers from 20 secondary schools (approximate max: 1300) Interview: 26 secondary school teachers	Online questionnaire responses Interview responses	Collation of questionnaire responses Use of questionnaire data to inform interview selection Analysis of interview responses
3. Why do teachers participate or choose not to participate?	Explanation of the different factors that guide/ inform/ restrain participation	Interview: 26 secondary school teachers	Interview responses	Analysis of interview responses

The different research methods were employed sequentially as follows:

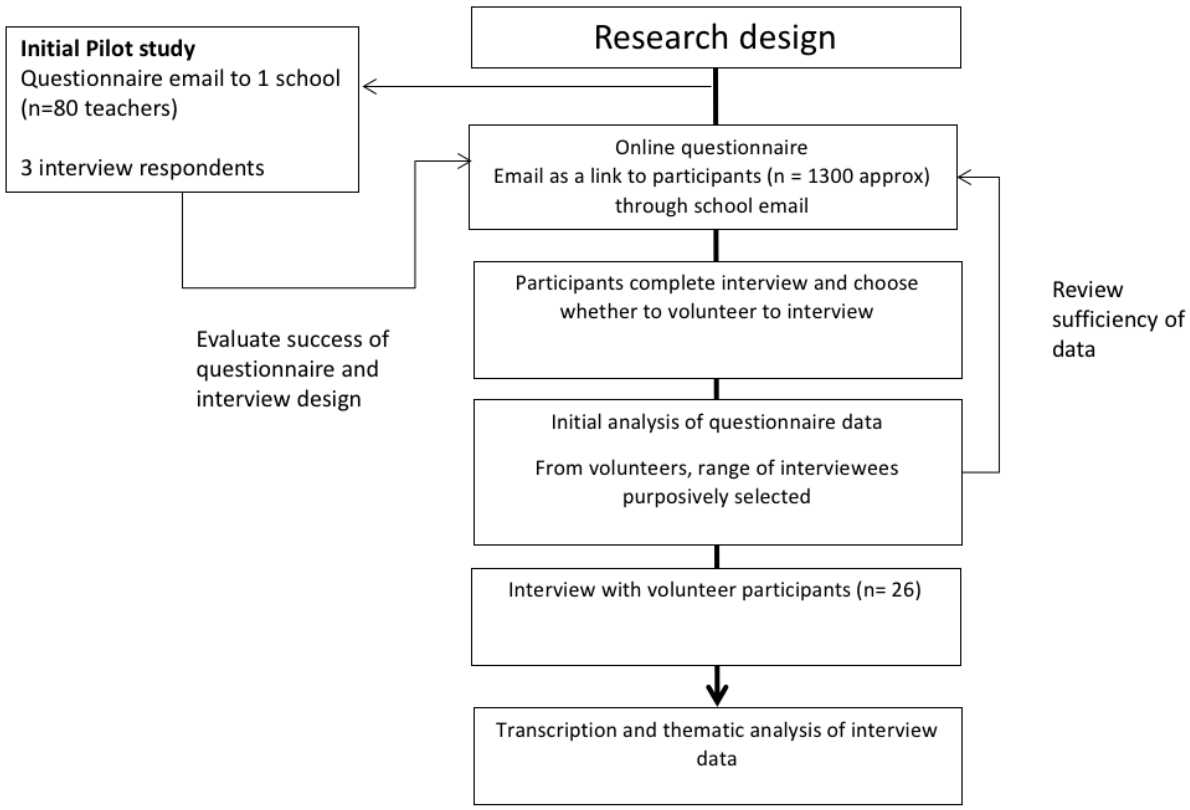


Figure 3: Research Design Diagram

4.4 Questionnaire Design

The questionnaire in the research design for this thesis was used primarily to look for patterns of use and attitudes that could be compared with the existing literature, and to identify participants for interview. The sources from the literature that informed the question design are as follows:

Table 2: Questionnaire design table

Question Number	Question	Reference
Consent questions	1. I have read and understood the information detailed above and have had the opportunity to ask questions about the study. 2. I agree to take part in this research project and agree for my data to be used for the purpose of this study. 3. I understand my participation is voluntary and although I cannot withdraw my answers to these questions once they have been submitted (because these are submitted anonymously), I can choose to stop answering at any point in the questionnaire 4. I understand that, if I choose to volunteer for interview, my responses will be anonymised in reports of the research 5. I understand that information collected about me during my participation in this study will be stored on a password protected computer and that this information will only be used for the purpose of this study. 6. I understand that if I choose to do an interview, I can choose to withdraw at any time prior to, or within the two weeks after, the interview	University of Southampton Ethics Guidance Association of Internet Researchers Ethics Committee, 2012
1	What is your gender?	Comparison with DfE workforce statistics (DfE, 2017)
2	Age?	Age as a factor which has an impact on social media participation (Fox & Bird, 2017)
3	How long have you been a teacher?	Link between age and length of service/ length or service and participation. Literature on student teachers and social media participation (Holmes et al. 2013; Kinchin & Bryant, 2015)
4	Professional vs. personal use of social media	Owen, Fox & Bird, 2016; Fox & Bird, 2017
5	Why do you choose not to use social media for professional purposes?	Factors influencing non-participation McCulloch et al. 2011; Fox & Bird, 2017; Rönnkkö, 2017

6	Which of the following platforms do you use to interact with/ participate in conversations about teaching?	Literature on teacher use of different social media spaces: Twitter: Holmes et al. 2013; Facebook: Bissessar, 2014; Mumsnet: Pederson & Lupton, 2016; Pinterest: Rensfeldt et al. 2018. Theory of polymedia: Madianou & Miller, 2012 Other platforms of use suggested by teachers in feedback from pilot study.
7	How do you interact with or participate in these online conversations about teaching?	Modes of participation: Hrastinski, 2008; Goodyear et al. 2014
8	What kinds of topics are you most interested in talking or reading about?	Bissessar, 2014; Lu & Curwood, 2015
9	When do you use social media to interact with conversations about teaching?	Rensfeldt et al. 2018
10	Why do you interact with conversations about teaching online?	Factors motivating participation: Davis, 2015; Macià & García, 2016
Interview consent	Would you be willing to participate in a 40 minute interview about your use of social media for discussion about teaching and learning?	University of Southampton Ethics Guidance Association of Internet Researchers Ethics Committee, 2012

The questionnaire included an opportunity for respondents to volunteer for interview, regardless of whether they considered themselves users of social media or not. These volunteers were purposively sampled to ensure that a range of different kinds of participation were represented in the interview process. This is a similar model to that used by Owen et al. (2016) in a sequential mixed methods research project analysing teacher use of social media (both developmentally and for their students). The questionnaire responses were collated to examine patterns and trends but the primary purpose of the data was to inform qualitative analysis.

As this thesis wishes to explore a range of different modes and motivations for participation, the questionnaire was designed to provide both information on participation patterns and also the contextual factors that may influence participation. As Timperley et al. (2007:25) argue, “the learning of an individual teacher is strongly influenced by the sociocultural context in which the

professional learning and the teaching practice take place"; therefore, wider contextual information such as gender and years of teaching service was pertinent and helpful in establishing whether there were broader trends. This information also helped to establish some of the parameters for the personal and professional contexts of the participants involved before these were explored further in the interview process. For example, studies such as Richter et al. (2011) suggest that length of teaching service has an impact on the kinds of professional development that teachers choose to partake in, with more experienced teachers favouring informal learning opportunities. Whereas, research into social media use (Fox & Bird, 2017) reports generational differences in engagement in technology which may be evidenced in the teaching population. Participant responses in these areas are explored further in the findings section in Chapter 8.

The platform chosen for hosting the questionnaire was Google Forms. This online platform has the advantage of familiarity, clear presentation, and the facility for the data from the questionnaire to be password protected. The questions contained within the questionnaire were multiple choice (see appendix 1 for a copy of the questionnaire), and with the option of a free-text entry 'other' box to allow for alternative answers if an option was not included. The use of Google Forms and the multiple-choice format follow the design used by Carpenter & Krukta (2016) in their survey of educator participatory learning practices on Twitter. An alternative format, with the use of a Likert-type scale, is modelled in Owen et al.'s (2016) survey on UK teacher personal and professional use of social media. However, Likert-type scales are more appropriate for attitudinal data (Croasmun & Ostrom, 2011), which were not the focus of the questionnaire in this thesis.

Online questionnaires are generally considered to offer advantages of speed and convenience for delivery, completion and analysis (Fan & Yan, 2010; Murphy 2015). However, online questionnaires are not without limitations, one of which is that it is difficult to target specific populations of users, another is that users are becoming increasingly reluctant to complete online surveys and this is having an impact on response rates (ibid). In order to circumnavigate the first issue, the questionnaire was emailed directly to schools and disseminated via internal email. However, the second issue, that of response, was more challenging, especially given that the voices of non-participants are a focus of study in this thesis and these are the cohort who were most likely to be absent from the data. In order to encourage completion, the questionnaire was quick, questions were short and mostly multiple choice, and skip patterns were built in to ensure that respondents did not have to answer redundant questions (Fan & Yan, 2010). The more direct

strategy of contacting participants through school email communication channels rather than through social media platforms was also intended to increase access to non-users of social media and encourage response.

One other limitation in the questionnaire design was that the use of multiple-choice answers meant that social media platforms and participatory platforms were specified for respondents to choose between. However, as noted by Ellison & boyd (2013), the internet evolves rapidly and the platforms and participatory practices popular when the questionnaire was initially designed may be out-dated by the time the respondents complete it. To address this issue by providing an opportunity for correction, and also to evaluate the wider success of the questionnaire, a pilot study was conducted and an opportunity for evaluation scheduled after the pilot questionnaire had been completed. In line with Denscombe (2003: 158-159), the evaluation considered whether the questionnaire had: 1. provided full information; 2. supplied accurate information; 3. achieved a decent response rate; 4. upheld ethical principles, and, 5. provided an opportunity for considering whether the most relevant questions and options had been included or whether these were in need of amendment. The evaluation of the pilot study questionnaire, and subsequent amendments made, are included in chapter 5.

4.5 The Choice of Qualitative Interview-Based Methods

A guiding factor in the choice of qualitative interviews as the main research method for this study was the potential for interview responses to explore the reasons and motivations that inform participants' interactions and discussions on social media, and provide 'thick' descriptions of the different inter-relating factors that influence, restrain or guide participation. The interviews I conducted therefore used dialogue to "understand the way in which the individual creates, modifies and interprets the world in which he or she finds herself" (Cohen, Manion & Morrison, 2011: 6). The process of discussion in the interview process to build understanding is consistent with the socially constructed view of professional development held in this research as collaborative and dialogic.

The interview design adopted in this study follows Brinkmann and Kvale's (2015: 4) conception of the semi-structured research interview as a professional conversation in which "knowledge is constructed in the inter-action between the interviewer and interviewee": the purpose of the exchange being to understand the social media contexts and participatory practices of the participant from their own perspective. The construction of knowledge in this form of interview is

a two-way process. It is likely that participants may not have reflected on the contextual influences on their online practices in as much detail before and therefore their understanding was potentially "not so much revealed as constructed" during the interview itself (Brinkmann & Kvale, 2015: 107).

An alternative research method considered for this thesis was the use of focus groups: these could have used group discussion to build understanding and provided a forum for knowledge construction that echoes the collaborative environments of effective professional development (Cordingley et al. 2003). However, participatory practices on social media are often bespoke to the individual, especially when the particular blend of personal, professional, social and technological contextual factors that influence participation for each user are considered (Fox & Bird, 2017). A key criticism of the validity of the data gathered in focus groups hinges on the potential for polarization of opinion, "emotional and unconscious alignments" that form between participants and result in conformity in how they think and talk (Markova et al. 2007: 36); therefore, when exploring reasons for participation, or non-participation, participants may be more reluctant to discuss personal motivations or restraints if these do not match the experiences of the rest of the group. Fear of judgement is a recognised inhibitor of online participation in group discussion (Littleton & Whitelock, 2005), so data collection methods that require contribution within a focus group might also have the potential to inhibit participant response.

An example of how social media research can use qualitative interview-based methods to explore participation is seen in Bissessar's (2014) use of qualitative interviews to explore attitudes and participatory practices on the Trinidadian Teacher's professional Facebook Site 'A Teacher's Voice'. The interviews in this study, conducted over the telephone or email, are positive in their discussion of their online participatory practices and affirm the value of the website in supporting them through the sharing of curriculum information, resources, social and professional support, celebrations of achievement, shared humour and prayer. However, it should be noted that the respondents purposively selected for these interviews were all Facebook users including members of the administrative team for the site and other users that the administrators recommended. These were therefore all competent and regular participants and as a result, the paper lacks the voices of non-participants who were not comfortable or confident Facebook users.

Fox & Bird's (2017) interview-based study of teacher professional and personal use of social media is more nuanced in its exploration of the motivations that sit behind a lack of engagement

with social media. In this paper, the vignettes from those identifying as non-users reveal this to be a complicated area as some of these participants use social media personally but not professionally, or have difficulty distinguishing between the two contexts. Their reasons for this use/non-use are also varied and include concerns regarding lack of familiarity, loss of control over information and concerns over professional reputations or scandal. These concerns are often expressed unclearly in the transcripts, with statements such as "I am not au fait with it, but I am aware it's there … but it's not a major part of my professional life" and therefore needed the opportunity for further explanation (Fox & Bird, 2017: 661). Fox and Bird used the interview process to explore these stances concluding that the participant's comments indicate a choice not to engage, but one that is driven by a sceptical lack of appreciation of the value of social media to himself as a teacher.

My choice of qualitative interview-based methods in the design for this research is therefore driven by the potential that this method has for exploring the less visible aspects of participation: the processes of decision making, the reasons and the motivations that sit behind the content that exists online. The process of interviewing itself was semi-structured and exploratory with both myself and my conversational partner using dialogue as an "opportunity for sense making" (Markova et al. 2007: 132), to co-construct a conceptual understanding of the factors that motivate and inhibit professional discussion online.

4.6 Interview Methodology: Visual Elicitation from Social Media

The aim of the interviews in this project was to provide participants with an opportunity to reflect upon and explain their participation on social media and the motivations that lay behind their participatory choices. For participants who used social media for professional purposes, opportunities to refer to the social media feed on screen enabled them to better reflect on their choices. The use of the social media page as a stimulus and memory trigger follows the methodology of visual elicitation as a qualitative interview practice that assists participants in recollecting and reflecting upon their experiences (Johnson & Weller, 2002; Chen, 2018).

Visual elicitation methods can include response to a range of stimuli including physical specimens, maps, drawings, photographs, and video clips (Crilly et al., 2006). For example, Vigurs & Kara's (2017) use of photo-elicitation to explore contested intergenerational perceptions and experiences of 'place' in one English village; or Warfield's (2017) use of photo elicitation and in-

depth interviews to explore the lived experiences, feelings, and beliefs of "avid selfie-takers" (65). Examples of social media feeds operating as a form of visual elicitation include Schoenebeck et al.'s (2016) use of a retrospective interviewing technique that required participants to reflect on their past identities on Facebook. In this study, the Facebook page functioned as a virtual scrapbook that allowed participants to access older posts and photographs and consider their emotional responses to their previous participation (ibid). Chen (2018) also uses elicitation from social media participation as a method for prompting participants' recollections and reflections upon their experience of chronic illness. This study used software to combine participation on multiple platforms but framed these records of use as "online scrapbooks" that were used in interview as a stimulus for visual elicitation.

The use of the participants' social media feed within the semi-structured interviews in this project could therefore be considered a form of visual elicitation. However, it is interesting to consider the differences between the approaches outlined in the literature on visual elicitation and those presented within the literature on stimulated recall (SR), which is an established method for helping teachers to reflect on their practice (Nind et al., 2015).

The premise of the stimulated recall process is that "a researcher presents authentic stimuli and cues to research participants and seeks to reach their thoughts concerning the original situation" (Vesterinen et al. 2010: 184). This is not a new approach: Bloom (1953), often mentioned as the first to use this method, used audiotapes in investigating the thought processes of college students (Bloom, 1953, in Vesterinen et al., 2010). The most common use of the stimulated recall method is video-stimulated recall. This has been used extensively in research into teaching, where videos of lessons are used to prompt reflections from teachers on decision making and pedagogical choices made during the teaching process (Lyle, 2002; Vesterinen et al., 2010; Nguyen et al. 2013).

Stimulated recall is essentially a form of visual elicitation that focuses on previously made choices and decisions, using the stimulus to refresh recall of the context in which these participatory decisions were made. One example is Nguyen et al.'s (2013) use of video-stimulated recall to investigate teachers' decision-making processes about fostering learner autonomy in Vietnamese Higher Education classes. The purpose of using SR in this study was to "gain insight into why the participants chose to act/teach in certain ways" (Nguyen et al, 2013: 3). Another example of empirical use of the technique is Vesterinen et al.'s (2010) combination of video-stimulated recall

and a recording of a student's creation of a digital concept map to encourage teacher reflection on their own performance and the learning outcomes of the lesson. Both studies found the use of SR to be a valuable technique for investigating decision making processes in relation to specific events (Vesterinen et al. 2010; Nguyen et al. 2013), with Vesterinen et al. (2010) arguing that the inclusion of a digital artefact added an additional dimension to the process of reflection that enable the teacher to consider the learning processes that the pupil had gone through during the lesson.

Both visual elicitation and stimulated recall are used within qualitative interviews to prompt reflection of previous participatory practices. In the interviews conducted in this project, participant reference to the social media platform was filmed during the interview, in a method similar to Lewthwaite's (2011) 'over the shoulder' method, in which screen capture technology filmed students' use of social media during the interview process. Using this method, the social media feed functions as a visual artefact that elicits reflection on the motives for participation. In interviews conducted for this project participants could have been reflecting on previous social media use (by looking back at previous posts), or on their live responses to the content that constituted their social media feed at that given moment in time. The possibility for participants to be responding either to remembered participation, or to new content on their social media feed, was important to recognise, because the content of social media feeds change to feature new content or newly prioritised content and may not be the same at any given moment in time.

The practice of stimulated recall involves interviewees being filmed teaching or participating and then reflecting on this participation through watching the video and discussing their observations. An example of this is the video stimulated focus group discussion with teachers and learners immediately following observed and recorded methods training conducted by Nind et al. (2015). The participants in my project were not engaged in this two-step process, they did not perform their participation, and then reflect on the video filmed during the participatory process. Instead, the social media was used as a visual artefact that prompted elicitation of their tacit subjective understandings and motivations for participating on social media for professional purposes.

Therefore, whilst video stimulated recall has a strong tradition in prompting reflection on participatory practices, the use of social media as a visual prompt in the interviews in this project sits within the field of visual elicitation methods. This is due to the potential for the social media to feature new, as well as remembered, content, and also because the video filmed during the

interviews was not viewed by participants. This method has been used to facilitate access to memories of participation from points in the past (Belk, 2013), and also to support participants in finding ways of communicating previously unarticulated personal experiences (Johnson & Weller, 2002).

It needs to be noted that the use of visual elicitation methods within this project has certain limitations. One is that it is subject to recall bias (Schoenebeck et al. 2016), another is that it is dependent on participants' own self-report of their participatory practices. However, because this research is concerned with the subjective sense that individuals make of their own participatory practice, these limitations do not invalidate the findings. This method was also limited in the number of participants who could use it. For participants who did not use social media for professional purposes, the use of a social media feed as prompt was not possible. The perspectives of these participants were accessed through verbal responses to the semi-structured interview.

4.7 The Initial Choice and Rejection of the Methodology of Discourse Analysis

Initially, discourse analysis was chosen as the analytical approach for this thesis. The use of discourse analysis was considered a cohesive choice for this thesis because it fitted within the epistemological paradigm of social constructivism. Discourse analysis considers language (and attendant participatory practices) to be a means by which we both interpret and construct the world around us: "language is a key way we humans make and break our world, our institutions, and our relationships "(Gee, 2014: 9 - 10). In line with Dreier (1999, 2008), Gee also considers the identity to be "flexibly negotiated" in contexts of practice, and participation in these local contexts to be the key mechanism by which we learn and also realise our identity (Gee, 2014: 31). Participants take on different identities in different contexts and practices, and these may conflict with one another. This correlates with the conceptual framework presented in this thesis which recognises teacher professional development in discussions online as an inter-related but sometimes dissonant context.

Discourse analysis is an interrogation of language in use. In the context of this project this means the wider participatory behaviours of "acting-interacting-thinking-valuing-talking-(sometimes writing-reading)" that form the modes of discussion online (Gee, 2014: 34). Initial models for this form of analysis were taken from studies such as Gee's analysis of the Discourse community

within the Real Time Strategy Game "Age of Mythology' (2004) and Khosravinik & Unger's (2015) discourse analysis of participant attitudes towards digitally mediated forms of political resistance on Facebook.

However, when I was undertaking the analysis of pilot interviews, it became clear that this mode of analysis did not fit the data. This was initially because the data collection in this project focused on the participants' spoken contributions in interview, not the 'language in use' itself within social media spaces. The choice to use interview data was due to the focus on the motivations that sit behind participatory practices, especially for those whose participation is not visible. Analysis of participant discourse in response to a semi-structured interview processes enables investigation of these motivations, whereas analysis of the product of these motivations – the written online interaction itself - may not. The analysis did not therefore attend to the way in which language, or the wider forms of participatory discourse, were used to participate online. Instead, the analysis of the data focused on the reasons that the participants gave for their participatory choices. The coding, grouping, and investigation of the patterns and links between these reasons better fitted a thematic analysis that is further explained in the next chapter.

4.8 Thematic Data Analysis and Inductive Generation of Theory

The analysis of interview data in this project follows a qualitative methodology that aims to find out about the participants' lives and experiences through what they said and grounds interpretation in participants' responses (Wilkinson, 2011). Thematic data analysis in this context is a flexible and useful research tool, which provides a rich and detailed, yet complex account of data (Braun & Clarke, 2006). It enables discussion of the ways that individuals made meaning of their experience, but also the ways that the wider contexts of participation impinge on those meanings. Thematic analysis enables direct engagement with the reality of participants' experiences, but by grouping participatory themes, also works to unpick the surface of the reality to enable a deeper consideration of the circumstances that prompted participation (Braun & Clarke, 2006).

This project adopts an inductive approach to data analysis (Braun & Clarke, 2006; Maguire & Delahunt, 2017) in which the themes identified as motivating or inhibiting factors for participation are emergent from the data. This is both a semantic and latent approach to identifying meaning. The semantic themes refer to the explicit or surface meanings of the data (Braun & Clarke, 2006), in the context of this project these are the specific participatory choices made by participants; the

latent themes are the "underlying ideas, assumptions, and conceptualisations – and ideologies - that are theorised as shaping or informing the semantic content of the data" (ibid: 13). The goal of this inductive process in this thesis was the construction of the theoretical model that positions teacher participation in social media spaces as a form of collaborative professional development.

Within the literature, inductive thematic analysis has been used to analyse participant interview data regarding use of social media in studies such as Wright's (2010) analysis of Twittering in Teacher Education, and Bissesar's (2014) analysis of teacher use of Facebook as an informal professional development tool. It also forms a component part of Fox & Bird's (2017) study of the challenges facing professionals using social media.

This chapter has so far focused on the qualitative analysis of interview data, however, this is an explanatory sequential mixed methods project. The questionnaire design is informed by current literature documenting teacher social media use, and interviews were guided by the questionnaire responses in identifying areas for investigation. This follows a mixed methodology (Creswell, 2014), and could therefore be considered a mixed deductive/ inductive approach as some of the areas for thematic investigation are pre-determined by their inclusion in the questionnaire (such as time of use, or modes of participation).

However, this thesis is concerned with mapping teacher participation as enacted in the lives and actions of the participants and the construction of a theoretical model that is strongly linked to the data itself (Braun & Clarke, 2006). Whilst the use of the questionnaire does raise some areas for investigation, these do not narrow the focus or form analytic preconceptions. As Braun and Clarke (2006: 13) note: "researchers cannot free themselves of their theoretical and epistemological commitments, and data are not coded in an epistemological vacuum". Therefore, the thematic analysis in this project adopts an inductive process, and the construction of theory is data–driven, as opposed to the analysis of the data being driven by the theory (ibid). The thematic analysis is guided by Braun & Clarke's (2006) six-step model as a practical framework (Braun & Clarke, 2006; Maguire & Delahunt 2017). The clarity of Braun & Clarke's (2006) methodologies make these a useful tool for qualitative data, and these have been used in the health sciences to analyse the continuing professional development of occupational therapists through use of Twitter (Hughes, 2018). The use of the Braun & Clarke's (2006) structured approach to thematic analysis in this thesis provides a clear and straightforward sequence that guides the interpretation of the data and is detailed further in the methods chapter of this thesis.

4.8 Summary of Methodologies

This project positions itself within an interpretivist paradigm (Ritchie et al. 2014), aiming to understand social media participation for professional development through the subjective experiences of participant teachers. The project adopts an explanatory sequential design (Creswell, 2014) but with a balance of components that is weighted towards qualitative research methods. Inductive thematic analysis prioritises the views and experiences of the participants and allows the findings to emerge from the data. The research methods detailed in the subsequent chapter outline how this methodology was applied.

Chapter 5 Research Methods

The development of the field methods for this study is detailed in the sections that follow. As the ethics of internet and social media research is an area that is currently emerging and often problematic, these considerations have influenced my methods. This is therefore the starting point, so that my further choices can be contextualised within the current ethical landscape.

5.1 Ethics

The current guidelines on how to conduct internet research are not didactic but instead rely on a good understanding of the ethical principles surrounding the vulnerability of research participants and the potential for harm (AoIR, 2012: 4). The studies that have breached these guidelines are those that have misjudged the fragility of online privacy when sharing data (see Zimmer, 2010, for a fuller example). There is, in particular, confusion surrounding the nature of data that has been shared on public fora and the line between public and private information has become very blurred (Hooley et al. 2012). For example, in 1995, Sheizaf Rafaelli argued that researchers should treat public discourse on Computer Mediated Communication as just that: public.

> " …Such study is more akin to the study of tombstone epitaphs, graffiti or letters to the editor. Personal? Yes. Private? No ..." (Sudweeks and Rafaelli, 1995: 121, in Ampofo et al., 2015:169)

Similarly, in more recent research, the consent of users for the use of personal data has been assumed, partly because the terms of service signed by users allow third party use of data, but also because asking for consent is impractical (Sloan et al., 2015). However, assumed consent is problematic and is not the same as consent that has been knowingly given. Assuming that users have consented to any potential third party use of their personal data is not the same as participants consenting to the use of their data for the aims of a specific research project. Sloan et al. (2015) refer to research by NatCen (2014) and Burnap et al. (2014) as justification for using the data from social media platforms without explicit user consent. The online pilot survey (n = 255) conducted by Burnap et al. (2014) into users' perceptions of the use of their social media posts found that 73% knew that when accepting Terms of Service they were giving permission for some of their information to be accessed by third parties, and 82% were 'not at all concerned' or only 'slightly concerned' (Sloan et al. 2015). However, it is clear that from this data that 27% were not aware that consent for use of personal data was being assumed, and that a proportion of the 82% were slightly concerned, but this mild concern was not being taken in account. These are murky

ethical waters, when the lack of explicit consent of some, and the concern of others, is being ignored due to the impractical nature of seeking further consent.

Participant anonymity is also a particularly sensitive issue in social media research and extra care needs to be taken to ensure that participants are not identifiable online (Zimmer, 2010). Although many people make their social media accounts public and hold discussions online that are within the public domain, this does not mean that their data can be used for research purposes without preserving anonymity. As stated in the Recommendations from the Association of Internet Researchers Ethics Committee (2012), "People may operate in public spaces but maintain strong perceptions or expectations of privacy" (6). Therefore, my study fully anonymises all participants through the use of pseudonyms at all phases of analysis, in future publications and research presentations so that individuals cannot be identified. Care was taken not to include identifying details and screen shots of participant social media pages were modified so that any identifying features such as user names or photographs were hidden. Questionnaire data was anonymised, email addresses were removed (if given), and participants allocated a participant number (e.g. T162). Interview data was also anonymised and participants given a pseudonym. Both data sets were password protected and stored on a computer only accessible by the researcher.

As previously mentioned, data sharing agreements between Google and Twitter have made all tweets potentially searchable online, and therefore any direct quotations make participants potentially identifiable. It is also important to note that it is not possible to predict how any future links between social media corporations may affect the anonymity of data that was previously considered inaccessible (Anderson & Jirotka, 2015). These issues guide my decisions to use screen recording methods rather than asking for direct access to social media accounts, and to avoid using direct quotations from online posts in my analysis and discussion of findings. The written analysis of the online discussions held by the participants in this study therefore only quote the comments made in the interviews (the screen recording and transcripts of which will be securely stored and not available online) and do not make use of direct quotation from social media accounts which could lead to the participant being identified.

5.2 Researcher Reflexivity

In order to put this research in context it is important that I acknowledge my own professional position. I was previously a teacher, working in secondary schools and during the course of the study moved roles to become an Educational Advisor for the local authority. For the purposes of

this research, I was a doctoral student at Southampton University and I positioned myself foremost as a researcher. Yet, I also adopted a self-conscious, reflexive stance on my social, political and value positions as these have influenced the design of my project, the involvement of my participants and my interpretation of the data (Greenbank, 2003). The following outline of my professional context will attempt to make these positions clear.

Whilst no research can be considered 'value-free' (Greenbank, 2003), my professional role added an additional layer of subjectivity to the research process. In my daily life, I worked as an Educational Advisor alongside teachers in the classroom and due to this immersion in the professional context of teaching, I had a detailed understanding of the tacit knowledge of the teacher's world. This was an asset. Accessing tacit knowledge takes time and due to this understanding, I was able to explore issues that are "assumed, implicit, and have become part of participants' common sense" and understand interactions that may not otherwise have been clear (Tracy, 2010: 843).

However, although the boundaries between my role as researcher and role as advisor were clear to me, for my participants the boundaries may not have been as sharply delineated. The geographical sweep of my advisory work was wide, and as the interviews in this study needed to take place in a school context, and thus needed to be within driving range, they happened within the area in which I worked. My advisory role was supportive of teachers, but also required me to exercise professional judgement. It differed from that of a researcher, as when working in an advisory capacity I was positioned as an expert, not always as someone who was seeking and co-constructing knowledge. Interviewees could have been prompted by the knowledge of my advisory position to withhold information due to fear of judgement, and it was therefore preferable to conduct my research in schools which I did not support.

Yet, the research being undertaken in this project was not an analysis of teachers' participatory practices within the school day, it sat one step removed in the social media spaces in which teachers interacted and in which I had no involvement or jurisdiction. My dual roles were clear in the information I shared with teachers, and their participation in the project was voluntary. Overall, my knowledge of the professional context in which teachers work enabled a richer understanding of the multiple contexts in which they worked, learned and participated. This better equipped me to be an "interview-traveller" and accompany my interviewees in a process of reflection (Brinkmann & Kvale, 2015: 58). This research therefore adopted an epistemological

conception of interviewing as one of co-construction of knowledge and my subjective positions as former-teacher and educational advisor, and also as social media researcher were component parts of this constructive process.

5.3 Choice and Consent of Participants

The participants approached for involvement in this study were teachers at secondary schools in the South of England. This location was chosen to be within accessible driving range so that face–to–face meetings with teachers were possible. The study is limited to secondary school teachers rather than inviting teachers from across different settings to enable comparability of data. Departmental contexts within school are more defined in secondary than primary educational settings and keeping this aspect consistent across the case studies made this particular contextual element more easily comparable. The relevance of the theoretical construct for teachers in primary settings could be a focus of future research. The geographical location of these schools was a practical choice: this was often the most convenient location for busy teachers during the school day. This also suited the purposes of the research as the school context supported reflections on professional use of social media. Participants were able to request an alternative location; one participant asked to meet in a café.

Seventy-nine secondary schools in the area were approached (this number is the total of schools in Hampshire, minus the schools that I have supported as an education advisor). 20 schools consented to be part of the study. The average staffing size of secondary schools England is 67 teachers (Micklewright et al., 2013); this therefore included approximately 1300 teachers in the study. Schools were initially contacted by email (appendix 1), with a follow up email and phone call if there was no response. The Headteacher of the Secondary school was approached as a gatekeeper and consent was sought from the Headteacher or an alternative member of staff if this responsibility was delegated. After permission was received, the information sheet (appendix 7) and a link to the online Google Forms questionnaire (appendix 3) were distributed to teachers via the school office email. Teachers were able to choose whether to complete the questionnaire or not by making the choice whether to click on the link within the email and complete the questionnaire online.

To ensure transparency of purpose, information on the rationale and context of the research project was clearly provided at the start of the questionnaire and consent was sought from questionnaire participants through the use of compulsory consent question completion at the

start of the process. This proved to be a successful method of ensuring that full consent was given before participants progressed to the questions. Participant response rates for consent statements were close to 100%, with a maximum of 3 participants out of 230 neglecting to check the full range of statements. This may have been due to participant error, as all participants progressed voluntarily to complete the questionnaire indicating that they were willing to participate.

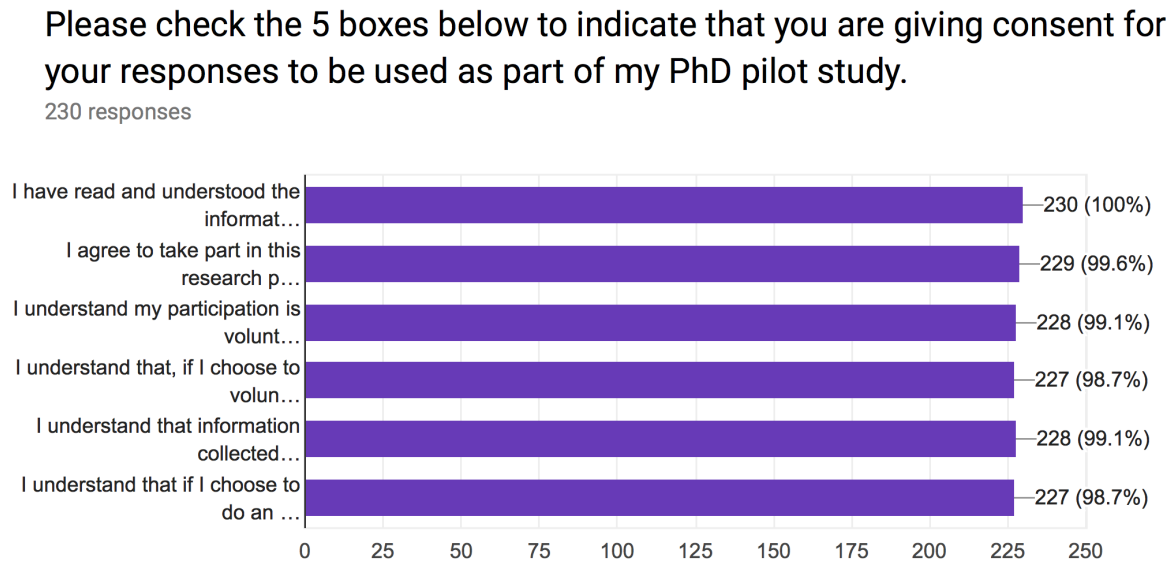


Figure 4: Participant consent questions

Participants were also informed that they were free to stop or withdraw within the initial stages of data collection prior to analysis. Once the participants' responses had been woven into the completed analysis, it would not have been possible for them to withdraw their participation because the questionnaire analysis was a composite of participant responses. Therefore, participants were informed that if they changed their mind regarding consent within the two weeks following the interview their responses could be withdrawn from the data set. From this point onwards it was not possible to withdraw their contributions. No participants chose to withdraw from the study.

5.4 Questionnaire data collection

The questionnaire used for this study was designed using Google Forms, chosen as an accessible platform, which uses a familiar and straightforward questionnaire design and enables password protection of data. The questionnaire was brief (10 questions) and distributed via email to the teachers at the secondary schools that volunteered as the research sites for this study. The questionnaire asked teachers how often they used social media to discuss teaching and learning and how they chose to participate in online forums (see appendix 3).

Teachers were given two weeks to respond to the questionnaire, with two reminder emails sent during this period of time. Of the approximately 1300 teachers contacted, 230 completed the questionnaire: this equates to a response rate of 17.7%. This is relatively high: response rates to web surveys are currently declining and vary considerably (Fan & Yan, 2010; Petrovčič et al; 2016). Recent research by Petrovčič et al. (2016) reported a response rate of 8.4%, with reported response rates in the literature ranging from between less than 1% to 76% (Petrovčič et al. 2016: 328).

Despite the relatively high return of responses to this questionnaire, it needs to be borne in mind that 82.3% of teachers chose not to complete it. Caution needs to be taken to ensure that any conclusions drawn from the answers are not considered to apply to all teachers from the school, only those who responded. Given the focus of this research, it is also important to note that there is a reported correlation between levels of online participation and web-survey completion, with individuals who participate less online being less likely to complete online surveys (Petrovcic et al. 2016). Whilst this is not a surprising finding, it is important to note that in this context, non-participants are again the silent majority and their views will be extrapolated from the individuals who chose to participate in the online questionnaire, but identify as less frequent, or non-participants online.

5.5 Interview Data Collection

Teachers indicated willingness to participate in an interview through a specific question at the end of the questionnaire. All participants who volunteered were interviewed (26 interviewees). These teachers were contacted by email and asked to identify a convenient time when a 40-minute interview could be conducted. Interviews were located on the school site for convenience and also to prompt consideration of the dual contexts of the teacher's professional role and the social

media platform. The 40-minute length of the interview was chosen so that it could fit easily within a single lesson span during the school day.

During the interview participants were asked to log into the social media applications that they used to discuss teaching online, starting with the one that they used most frequently, and to share their thoughts and motives on their participation. For participants who used social media for professional purposes, Active Presenter screen recording software was used. Active Presenter is a form of e-learning authoring software and was initially used to create screencast or webcam videos (note: the software has developed over the course of this research project, and it is now possible to create a range of e-learning products)[4]. This particular software was chosen because it allowed simultaneous audio and video recording and the length of recording was not limited. It was also possible to pause the recording at any time, in accordance with the participant's wishes (this was a useful feature when interviews were interrupted by school issues) and export the recording as video files once the interview was complete.

This use of screen recoding/audio recording was chosen as a method because it allowed access to only the social media fora and information that the participant chose to share with the interviewer during the interview process but did not require sharing of passwords (these were entered out of sight before the recording starts). The use of dual screen/audio recording also made it possible to revisit the shared content when analysing the data in order to access visual reference points and aspects of the social media context.

For participants who did not use social media for professional purposes, audio recordings were made of the interviews using a dictaphone. These were downloaded as audio files and stored securely once the interview was complete.

5.6 Transcription

Initially, this project was more (perhaps overly) ambitious in its transcription methods: I intended to transcribe the participants' interviews using a multi-modal format that included the interviewee's actions and references to onscreen images. This form of transcription was intended to recognise wider participatory behaviours and the value of "modes" beyond speech (Mavers, 2012: 2). This was initially developed as response to the wider definition of discussion in this

[4] See https://atomisystems.com/activepresenter/ for full details of the software

project that included modes of conversation that are not necessarily spoken or written (such as reading, spectating, liking, or downloading of resources etc.).

I chose to analyse the interview transcripts, rather than the online contributions of the participants because the focus of this project is the motivations that sit behind participation. For most participants, especially those who do contribute visibly online, the spoken reflections to interview rather than the contributions online provide the information about why the individual has chosen to participate in that manner. The multi-modal transcription of their actions during interview was intended to provide the wider context to this spoken reflection. The transcription of both the references to onscreen participation and the verbal responses during the interview was also intended to enable analysis of the correlation between the two.

However, when the interviews conducted during the pilot study were transcribed, it was clear that the use of multi-modal transcription added little to the analytical process. The teachers interviewed used the social media feed to reflect on previous participatory actions and discuss the motivations behind them but did not participate online during the interview itself. This meant that transcription of action constituted reference to the participants scrolling up or down screen (see appendix 9 for an example of a transcribed pilot interview). An alternative was to include detailed description of the pages that participants viewed during the interview process however, as these were already being filmed, this action seemed redundant.

As participants were communicating their motivations and inhibitions about participating online through their spoken contributions to interview, the transcription of the interviews focused solely on this element (see appendix 10 for an example of a transcribed interview from the main project). The transcription of the interviews in the main project was conducted by a professional transcriber and then checked by myself to ensure accuracy. The filming of the participants' social media feed during interview allowed for reference to the online context to support understanding of participants' spoken references and to enable illustration of participatory actions if necessary.

5.7 Coding, analysis and presentation of participant responses

Participant responses to the questionnaire were collated and used to generate the charts seen in Chapter 6. These were analysed descriptively, to check patterns of participant use against the trends identified in the literature and also to identify areas for further investigation in interview.

The transcribed participant responses to interview were coded using an inductive process of thematic analysis following Braun & Clarke (2006).

Table 3: Braun & Clarke (2006) Thematic data analysis process

Step 1: Become familiar with the data	Step 4: Review themes
Step 2: Generate initial codes	Step 5: Define themes
Step 3: Search for themes	Step 6: Write up

Data were initially transcribed by a professional transcriber, then checked by myself and coded in Nvivo Pro. Initial codes were generated from 'recurrent instances in the data' (Wilkinson, 2011: 171) relating to teacher use of social media. These codes were then grouped into themes. This sequence also matches the process outlined for thematic analysis in Silverman (2014). The themes and component codes can be seen in the coding table detailed in the appendix.

Whilst the 6 steps outlined by Braun & Clarke (2006) provide clarity, and a linear structure, thematic analysis is, by necessity, an iterative process (Srivastava & Hopwood, 2009). For example, familiarity with the data (Step 1), increases throughout the process of theme generation (Steps 3 to 6). Therefore, whilst the sequence of collapsing codes into themes was followed, the relevance of certain codes were reconsidered during theme generation and review. The writing process also provided an opportunity for iterative reflexivity as the opportunities to visit and revisit the data progressively led to "refined focus and understandings" (Srivastava & Hopwood, 2009: 77).

One limitation of this type of thematic analysis is that it is possible to "lose sight of where the data [coded] sit within the whole [transcript]" (Bloor et al. 2001: 64). By collating and combining data from across participants' interviews, the wider context of the individual's participation can be lost. In order to avoid this, I constructed 'snapshots' (collages of key quotations) of each individual's participation that gave an overview of their comments and their participatory practices (see the

interview findings in Chapter 7). These allowed me to gain a holistic sense of the participants as individuals and their participatory practices as a whole. These also illustrate that individuals' participation can rarely be defined through the application of a specific label within a typology (such as those seen in Preece et al 2004; Preece & Schniederman, 2009), as (non)participation can range from non-participatory, to non-visible, to visible depending on a variety of contextual factors.

Another consideration, raised by Silverman (2014), is how the thematic coding translates into analysis and discussion of findings. Silverman (2014) raises three key issues as follows.

1. How to select material for presentation
2. How to give due weight to the specific context in which the material was generated
3. How to prioritize a participant's orientations in presenting an interpretative account

The selection of the themes to present in the interview findings was guided by the importance allocated to each theme by participants. This was partly determined by the amount that the interviewees spoke about a topic. Whilst this thesis did not perform a quantitative content analysis of the data (Silverman, 2014), the number of recurrent instances and amount that participants spoke about the topic could be determined through the summary generated in Nvivo.

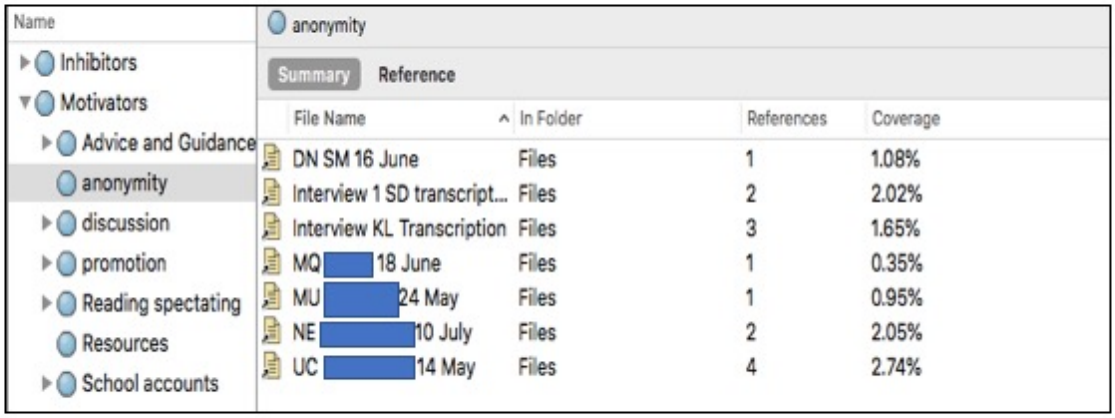


Figure 5: Example of theme summary

The summaries provide a guide to the themes that were recurrent in interview and have been represented as a graphic to support reader understanding of selection of themes for discussion (see figure 17). It should also be noted that some themes, such as anonymity, were not as prevalent as others, but were instrumental in supporting a deeper understanding of issues such as a fear of judgement, or changes in participant behaviour in certain socio-technical contexts (boyd,

2010). Therefore, whilst themes are weighted, this does not necessarily constitute a judgement about the importance of each specific theme or issue.

In order to ensure that the context, and the orientations of each individual participant was considered, individual participants speak within the findings. This enables a fuller consideration of the individual's own specific circumstances (e.g. length of service, subject area) and also their participatory practices as a whole. The participant 'snapshots' also provide a way to gain a sense of the full make-up of participatory practice for each individual. It was particularly important within this project that the holistic sense of the participant was not lost because participation is presented as a subjective process that is dependent on the inter-relation of the different contexts of social practice (Dreier, 1999). The analysis of the data is therefore presented thematically, but with participants speaking as individuals to voice specific themes (a further explanation of this structure is included within the preface to the presentation of interview findings in chapter 7).

The results of the application of the thematic analysis process is presented in the findings chapter. Prior to an explanation of these findings I discuss the pilot project, and adaptions made as a result of this trial.

5.8 The Pilot Study

A pilot study was conducted in order to trial research methods and to enable evaluation of the success of these methods prior to their use in the main research project. The pilot study involved dissemination of the online questionnaire to 80 teachers at a single secondary school. Three interviews were conducted and one was transcribed and analysed. The following section details this process finishing with a reflection on successes and limitations which informed the design of the main project.

5.8.1 Pilot Questionnaire

The pilot study for this thesis was conducted at one secondary school. This site was selected because it was known to me – I had previously worked as a teacher at this school – and therefore negotiating access was straightforward. Once the Headteacher had given consent, the questionnaire link was sent to the school receptionist and the link disseminated via internal email to the 80 teachers working at the setting. Teachers were given two weeks to respond to the questionnaire, with two reminder emails sent during this period of time. Of the 80 teachers

contacted, 26 completed the questionnaire: this equates to a response rate of 32.5%. This was a high rate of response and may have been due to the working relationships I had formed with the teachers. The rate of response in the main project was lower (17.7%).

The questionnaire in this thesis was designed to have a dual purpose: the first was to sketch a broad landscape of social media use of the teachers sampled; the other was to provide a means of gaining access to interview participants. The social media use by teachers for participation in professional discussion was varied: although certain platforms were common to most, the majority of teachers did not restrict themselves to usage of a single space and used social media for a variety of reasons. This matched the theory of polymedia (Madianou & Miller, 2012) that prompted the decision in this thesis to avoid focusing on a single platform.

The findings of the questionnaire have not been integrated into the data set from the main project because the format of the questionnaire changed slightly based on the evaluation conducted afterwards. The charts from the pilot questionnaire are broadly similar to those from the main project (bearing in mind the wider variability that can result from a smaller sample size) and are included in the appendix for reference.

5.8.2 Evaluation of pilot questionnaire

The pilot questionnaire was subsequently evaluated in line with Denscombe (2003), to consider the effectiveness of the questionnaire design and whether amendments needed to be made before it was used for the main data collection in this thesis. The following criteria was used as a rubric for evaluation:

Whether the questionnaire had:

1. Provided full information
2. Supplied accurate information
3. Achieved a decent response rate
4. Upheld ethical principles
5. Provided an opportunity for considering whether the most relevant questions and options had been included or whether these were in need of amendment

1. **Provision of full information:** The questionnaire could not be considered to have provided full information on social media use of teachers for participation in professional conversation. However, this was acknowledged before the questionnaire was undertaken and the inability

of a survey style tool to fully investigate the motivations that lie behind participation is the rationale behind the use of interview methods in this thesis. The questionnaire was successful in providing an initial outline, which the subsequent interviews filled with additional depth and detail.

2. **Accuracy:** The information gathered was self-reported. It was therefore not possible to ascertain the accuracy of the data unless the responses were checked against records of social media usage. However, given that the subjective experiences and motivations for participation are the focus of this research, self-reported data from the participant provided the most relevant form of data possible.

3. **Response rate**: The pilot questionnaire did receive a decent response rate (26 out of 80 potential participants: 32.5%). However, this may have been due to the relationships that I had previously formed when working as a teacher at the school. I needed to anticipate that when I approached schools where the teachers were not known to me, the response rates would be lower. Studies on response rates in web surveys offer a number of possible strategies for increasing the number of replies: one is to include official sponsorship within the details provided (such as the University Logo); another is to state the sponsor of the survey in the email subject line (Fan & Yan, 2010; Liu & Inchausti, 2017). Both of these strategies were adopted to support a good response rate to the main project questionnaire.

   Reminder emails are also considered to be an effective stimulus for response. For the pilot questionnaire, I sent two reminders, six days apart. Both of these resulted in a small spike in take up (approximately two responses); however, the questionnaire was clearly the most active on the first day and the subsequent reminders did not manage to stimulate the same kind of response (see figure 6). Some research suggests that an earlier reminder issued after 2 days may prove more effective (Fan & Yan, 2010). This strategy was used for the main project in which the two reminder emails were sent after two days and then one week.

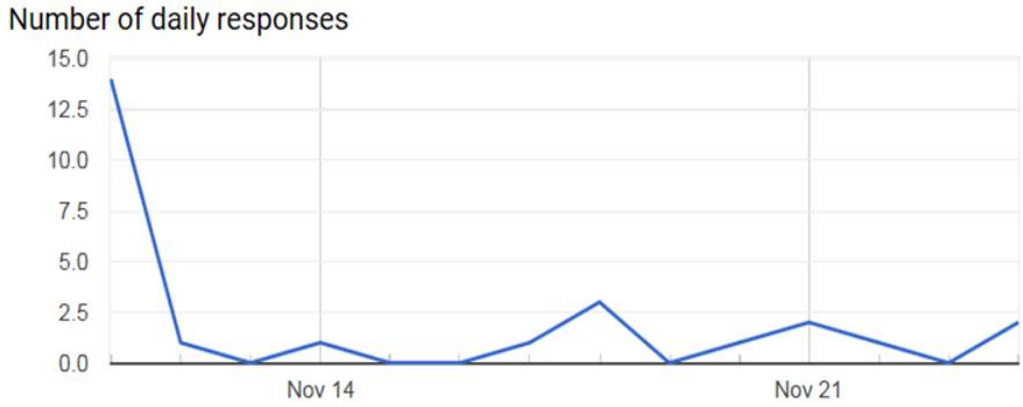


Figure 6: Questionnaire response rate

4. **Ethical considerations:** Ethically, this design of the pilot questionnaire enabled anonymisation of participant response (unless they chose to self-identify for interview at the end) and for full consent to be given before questions were answered. The same platform and design were used for the main project.

5. **Amendments:** Overall, the questions used provided a broad picture of social media use; however, a few changes needed to be made before this questionnaire was disseminated more widely. These changes were as follows:
   - On the initial gender question, an option for participants to non-disclose gender needed to be included.
   - A question that asked about participant age also needed to be added, as this may be a factor that affects social media usage (Fox & Bird, 2017).
   - The range of social media platforms specified in question 5 needed to be reviewed and updated. Some platforms such as YouTube or Mumsnet were absent. It is difficult to provide a full range of potential options as there are so many online spaces that have the potential to host discussion and collaboration. One solution is to ask respondents to use the 'other' free entry option within the questionnaire; however, this was infrequently used by participants and may have been perceived as more onerous than multiple choice entry. To compromise, in the main project questionnaire, the list of social media spaces was expanded, and a free entry box was also provided.
   - Clarification was needed on options that stated more than one action, such as 'share/ receive resources' (Q6), or 'get updates on news or policy (Q9). These were separated as different options in the main questionnaire.

- Question 8 also needed additional options that allowed participants to identify if they used social media before or directly after the school day. This was amended.

5.8.3 Evaluation of pilot interviews

From the 26 respondents who responded to the questionnaire, 10 volunteered for interview. Of these, 3 were chosen for the pilot study and interviews were conducted using the participants' social media feeds as a stimulus for reflection and response.

The interview schedule and participant information sheet created and shared for the pilot interviews were successful. These were subsequently used in the main project (see appendices 7 and 8). Active Presenter software was found to be a suitable method of recording and was therefore also replicated in the interviews that followed.

The interviews were transcribed using the multi-modal methodology described in the methodology chapter. For the purposes of this pilot study, one transcript was coded and analysed using emergent coding methods, and a discourse analysis methodology (Gee, 2014). A full table of codes that emerged from the data can be found in appendix 11. However, as discussed previously, these modes of data transcription and analysis were not as successful.

Whilst an attempt was made to transcribe interviews in a multi-modal form (see appendix 9), this was extremely time-consuming and did not provide a rich source of additional data. A choice was therefore made to focus solely on analysis of the verbal discussion of participation in interview.

Whilst the analysis of Kathy's interview was described as 'discourse analysis' for the purposes of the pilot project, on reflection the coding and analysis of the data took the form of inductive thematic analysis because it did not analyse the participant's language in use (Gee, 2014). Braun & Clarke (2006) argue that there can be confusion surrounding the demarcation of the differences between qualitative research methods such as discourse analysis, with thematic analysis often not being claimed as the method of analysis. The use of the structured thematic analysis method outlined by Braun & Clarke (2006) provided clarity for the main project.

The discussion of Kathy's participation is included as part of the wider discussion of interview findings in Chapter 7, because the use of the data collection method did not change and although

my understanding of the analytical process I was engaged in evolved, the inductive methodology in which codes were generated from the data remained the same.

5.8.4 Summary of Pilot

Overall, the pilot study demonstrated that the research design and methods of data collection were fit for purpose. The use of the online questionnaire to access participants was successful, although elements of the questionnaire design needed slight amendment. The semi-structured interview enabled discussion of the factors that motivated and inhibited participation and this format was therefore also used in the main project. The trial of transcription and data analysis methods resulted in the changes of approach detailed above and in the methodology chapter. The main project applied an inductive thematic data analysis approach to the transcribed interviews. The findings and the discussion of the findings from the main project form the content of the chapters that follow.

Chapter 6 Questionnaire Findings

This chapter presents the findings from the questionnaire from the main project in this study. Charts have been included for clarity, with the subsequent commentary describing the findings that these figures illustrate. The questionnaire was used as an access tool to find participants who were prepared to expand on the motivations behind their (non)participation in social media spaces, to sketch a landscape of use that could be compared to the literature on teacher social media practices, and to identify issues for further investigation in interview. The findings in this chapter are therefore described with these purposes in mind. The areas for exploration that were identified as a result of participant responses to the questionnaire are summarised at the end of the chapter.

6.1 Gender

Of the teachers who chose to respond, the greater proportion were women (68% women; 32% men). This reflects the gender balance within teaching more widely, although it is a slightly lower female/ male ratio than reported in national workforce statistics (76% women; 24% men: DfE, 2018).

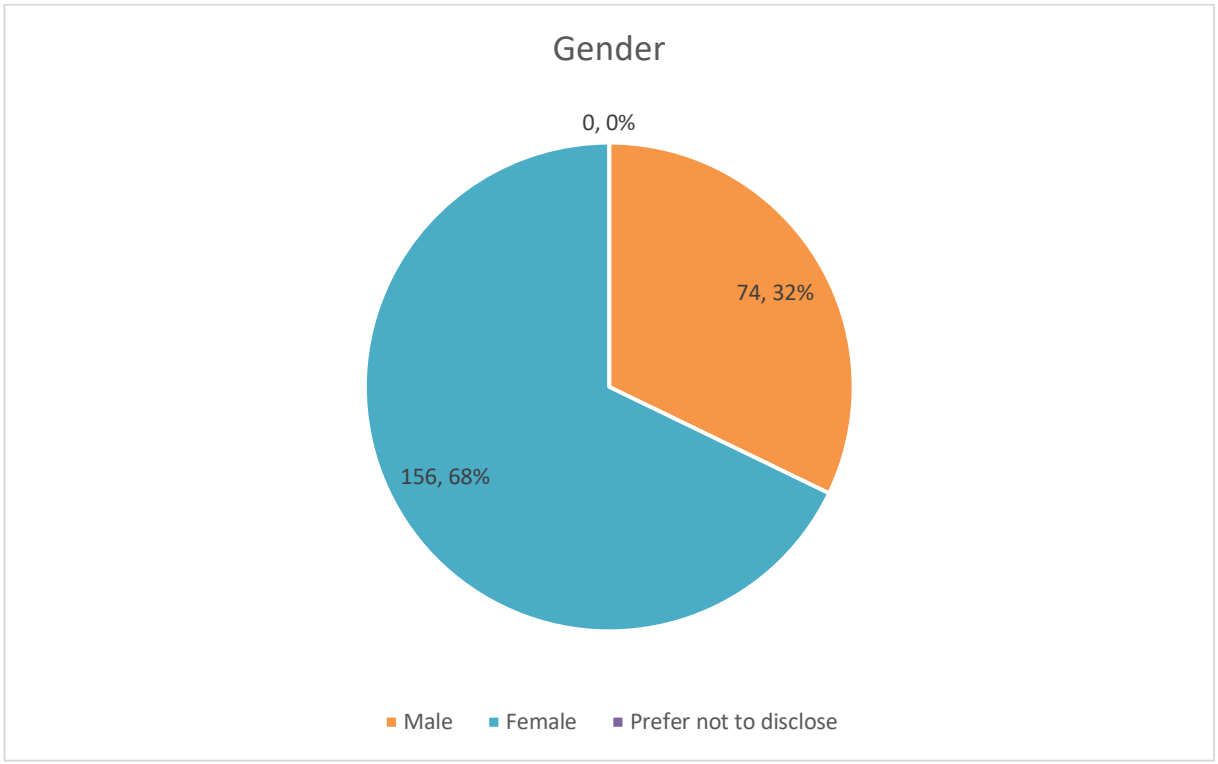


Figure 7: Q1 Gender

6.2 Age and Length of Service

The majority of participants (66%) who responded to the questionnaire were between 25-44 years old. The most recent data from the DfE (2017) suggests that this is a close match to the national picture as 25-44 year olds make up 65.4% of the national state school workforce.

There were slight differences in the representation of other age groups compared to the national picture. 45-54 years old were slightly over-represented at 24% of participants (20% nationally) and younger teachers were under-represented in the sample at 2% of respondents (6% nationally). The 9% over 55s who participated reflected national workforce proportions (8%).

The balance of respondents presents a slightly different picture to the survey of teacher use of social media conducted by Fox & Bird (2017) although the response rate of 230 participants was similar to their sample of 217 teachers. In Fox & Bird's study, 36-40 year olds were underrepresented, and the 46-50 age group the most represented.

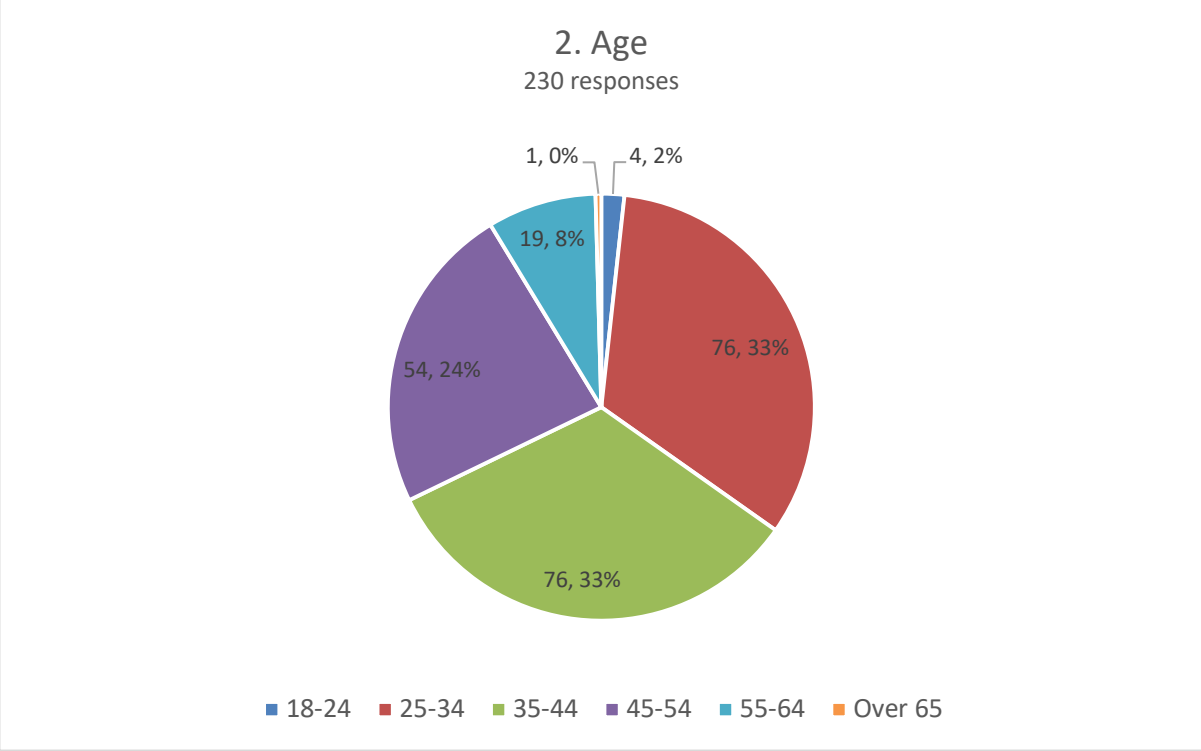


Figure 8: Q2 Age

The length of service reported by participants presents a relatively balanced picture: 51% of participants had been teaching for 10 years or less and 49% for 11 years or more. Training or NQT teachers are under-represented in comparison with other groups (10%). Workforce statistics on length of service are not currently available from the DfE, but comparison of the data for these questions indicates a link between age and length of service. Teachers aged between 25-34 are more likely to have been teaching for less than 10 years (94%), those aged 35-44 for more than 11 years (66%), whereas teachers over 45 are more likely to have performed over 16 years of service (64%).

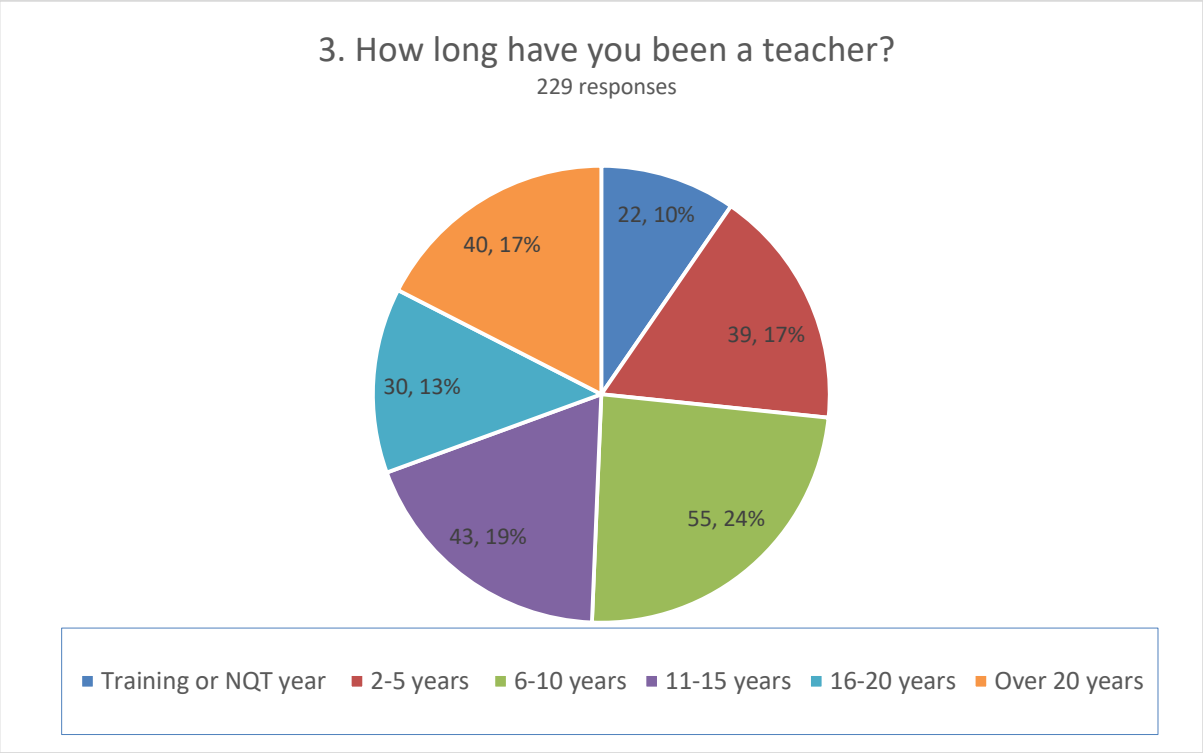


Figure 9: Q3 Length of service

Table 4: Participant length of service in relation to age

	Length of service (% of age group/ number of participants)						
Age Group	**Training/ NQT (22)**	**2-5 years (39)**	**6-10 years (55)**	**11-15 years (43)**	**16-20 years (30)**	**Over 20 years (40)**	**Total (229)**
18-24	50% (2)	50% (2)	0% (0)	0% (0)	0% (0)	0% (0)	100% (4)
25-34	14% (11)	34% (26)	45% (34)	7% (5)	0% (0)	0% (0)	100% (76)
35-44	7% (5)	8% (6)	19% (14)	37% (28)	25% (19)	4% (3)	100% (75)
45-54	6% (3)	6% (3)	11% (6)	15% (8)	13% (7)	50% (27)	100% (54)
55-64	5% (1)	11% (2)	5% (1)	11% (2)	16% (3)	53% (10)	100% (19)
65+	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	100% (1)

6.3 Non-use of social media for professional purposes

The majority of respondents who used social media reported that they used it for both personal and professional purposes. Fewer used social media for professional purposes alone (2%), than for solely personal purposes (37%). These findings suggest that for most teachers, social media is used for more than one purpose and teachers are using "the range of available possibilities to select specific platforms or media for particular genres of interaction" (Miller 2016: x).

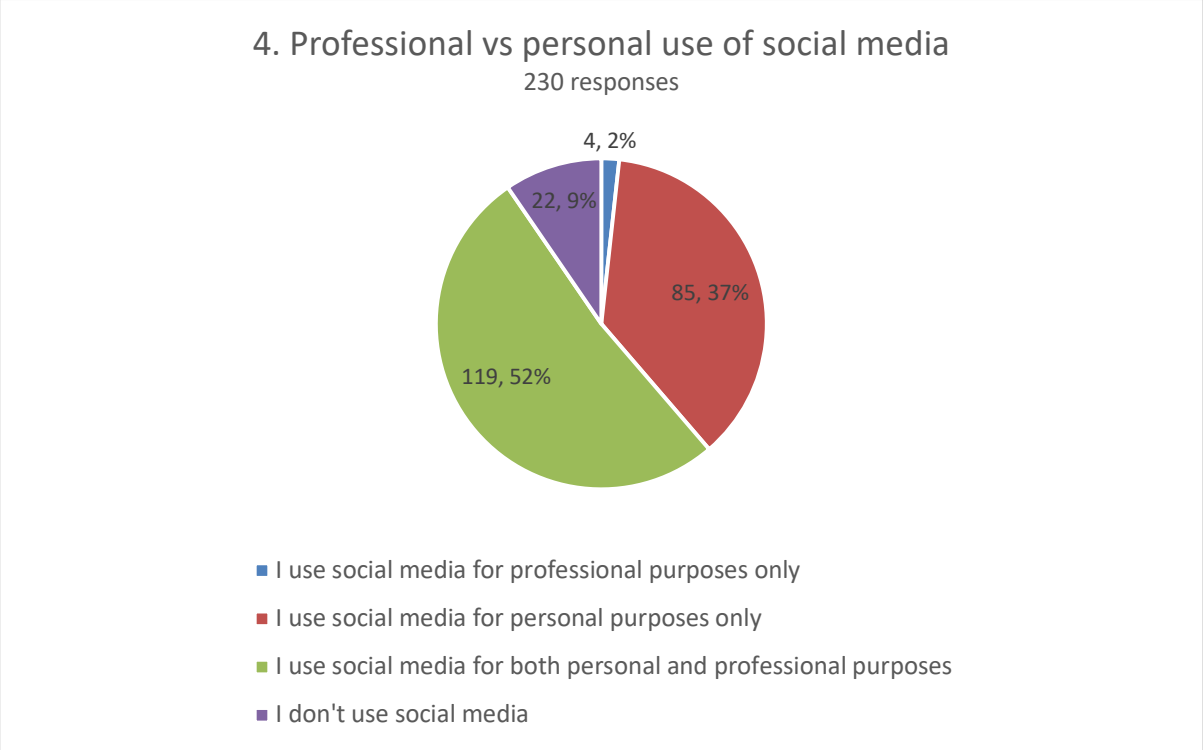


Figure 10: Q4 Professional vs personal use of social media

The findings of Fox & Bird (2017) suggest that age may be a factor that contributes to teacher willingness to use social media, with a skew to younger teachers being more enthusiastic; however, participant response data from this questionnaire does not support this finding. There is no clear relationship between teacher age, or teacher length of service and use of social media (see Table 5 and Table 6 below) with all age groups reporting blended professional/ personal purposes as the most popular motivation for usage.

Table 5: Participant use of social media for professional or personal purposes in relation to age

	Use of social media for professional or personal purposes % of age group (number of participants)				
Age Group	**Personal and Professional**	**Professional purposes only**	**Personal purposes only**	**Do not use social media**	**Total**
18-24	75% (3)	0% (0)	25% (1)	0% (0)	100% (4)
25-34	55% (42)	0% (0)	39% (30)	5% (4)	100% (76)
35-44	53% (40)	4% (3)	32% (24)	12% (9)	100% (76)
45-54	48% (26)	2% (1)	37% (20)	13% (7)	100% (54)
55-64	37% (7)	0% (0)	53% (10)	11% (2)	100% (19)
65+	100% (1)	0% (0)	0% (0)	0% (0)	100% (1)

Table 6: Participant use of social media for professional or personal purposes in relation to length of service

	Use of social media for professional or personal purposes % of group defined by length of service (number of participants)				
Length of service	**Personal and Professional**	**Professional purposes only**	**Personal purposes only**	**Do not use social media**	**Total**
Training/ NQT	41% (9)	5% (1)	31% (7)	23% (5)	22
2-5 years	56% (22)	0	38% (15)	5% (2)	39
6-10 years	51% (28)	0	40% (22)	9% (5)	55
11-15 years	53% (23)	2% (1)	37% (16)	7% (3)	43
16-20 years	53% (16)	3% (1)	33% (10)	10% (3)	30
Over 20 years	53% (21)	3% (1)	35% (14)	10% (4)	40

Of those respondents who choose not to use social media for professional purposes (therefore, those who used it for solely personal purposes, or not at all: 46%), the majority cited concerns over privacy (59%), lack of time (45%), dislike of social media (27%) and a perception that social media is not beneficial or useful (22%) (see figure 11). Teachers commented in the free entry 'other' boxes on the questionnaire that they felt a need to keep a distinction between home and work life: "*I generally aspire to keep work and social media separate in order to draw a line between work and leisure time' (T121 – OQ5); "I do not like to cross my job with something I enjoy personally" (T222 – OQ5); "I like to keep my personal & professional life separate" (T38 – OQ5)*

One respondent indicated that this is was the guidance delivered during teacher training: "*When I trained I was told to never use social media with students and have therefore chosen to keep it separate from my teaching profession" (T162 – OQ5).* If this is the guidance given to new teachers, this could reflect wider concerns over "lack of control" and risks to reputation (Ronkko, 2017: 49). This is a complex issue and therefore an area for discussion during the semi-structured interviews.

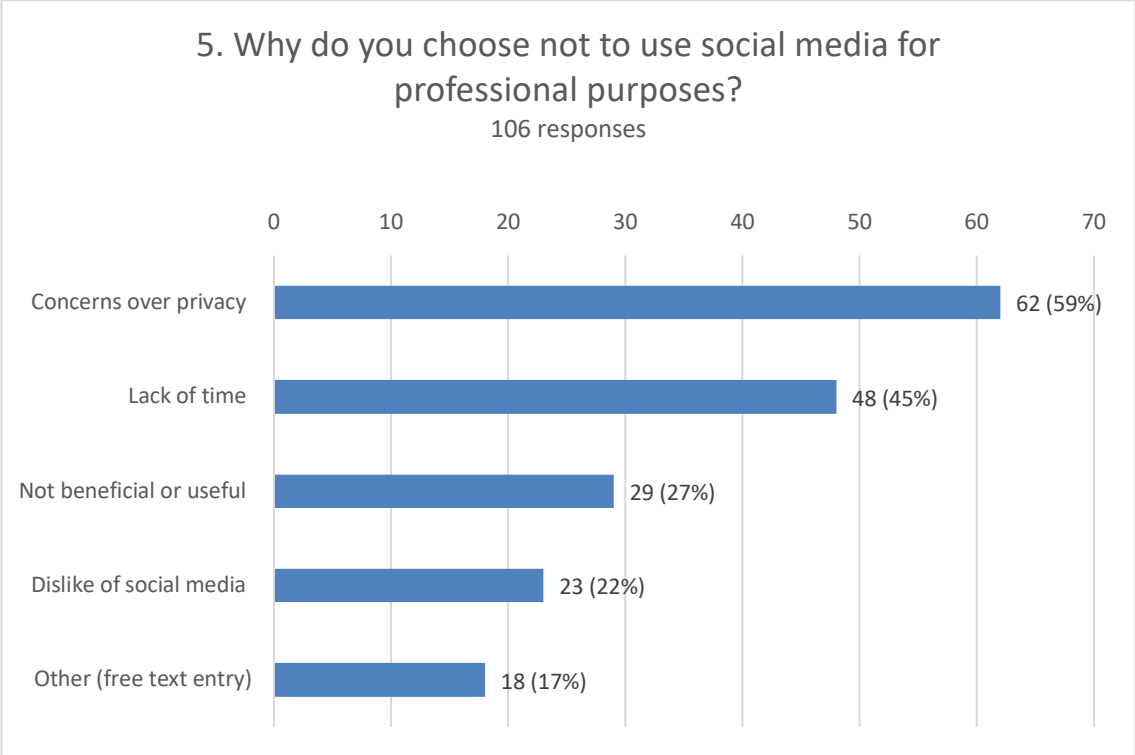


Figure 11: Q5 Motivations for using social media for professional purposes

Teachers have a notoriously heavy workload, and lack of time has been identified as a restrictive factor for social media use in the literature (McCulloch et al. 2011; Fox & Bird, 2017). This was

borne out in the questionnaire findings. It is also clear from the number of participants who did not find social media 'beneficial or useful' that many do not see the purpose of social media for professional learning. This may be due to a lack of training or familiarity: one participant commented: "*[I] Haven't really been introduced to it for work purposes*" *(T84 – OQ5)*, another that *"I don't really know how to use twitter or things like that for personal or professional purposes" (T100 – OQ5).*

It also needs to be acknowledged that the difference between personal and professional use of social media is not a simple dichotomy; for example, some teachers may consider reading an article or blog about teaching to be 'work' whereas others would count it within personal use. This is an area that is not clearly defined (Fox & Bird, 2017) and needed to be explored further in interview.

6.4 Participant Use of Social Media for Professional Purposes

The majority of 123 teachers who responded in the questionnaire as users of social media for professional purposes, reflected Miller's (2016; Madianou & Miller, 2012) theory of polymedia. These teachers stated that they used multiple platforms when engaging in professional discussion online. As expected, Facebook (70%) and Twitter (66%) were the most popular platforms; however, a wide range of other websites were also mentioned by participants. This suggests that, as Miller et al. (2016: x) argue, social media is best understood "not as the platforms on which people post, but rather as the contents that are posted on these platforms". The platforms are disparate, ranging from video sharing (Youtube), to image curation (Pinterest) to professional networking sites (LinkedIn). It is not possible to classify the social media platform as a site of professional learning based on generic attributes, it is necessary to look instead at the bespoke forms of participation by and between teachers that happen within platforms that may have not been created specifically for professional development purposes.

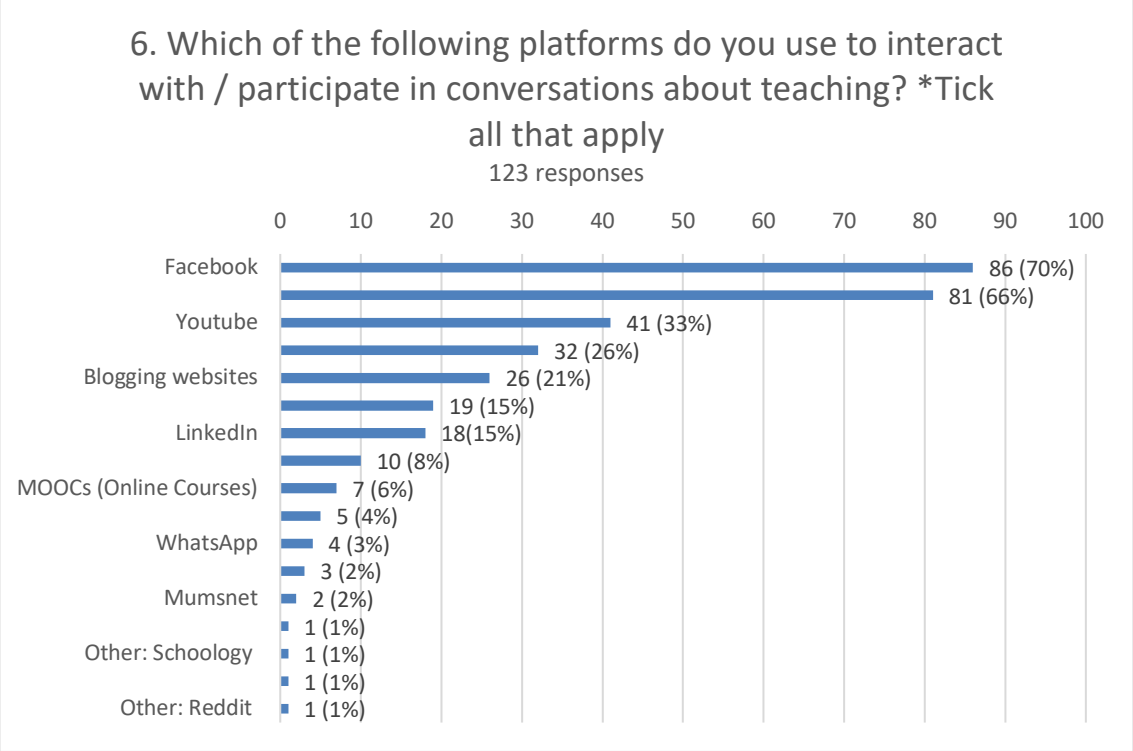


Figure 12: Q6 Platforms of use

As reflected in the literature (Preece et al. 2004), the most popular modes of participation online involved non-visible or minimal contribution. Respondents were able to select more than one option, but the most popular were 'find or download resources' (77%) and 'read posts or blogs

written or shared by others' (77%). 'Liking/ favouriting posts by others' chosen by 70% of participants.

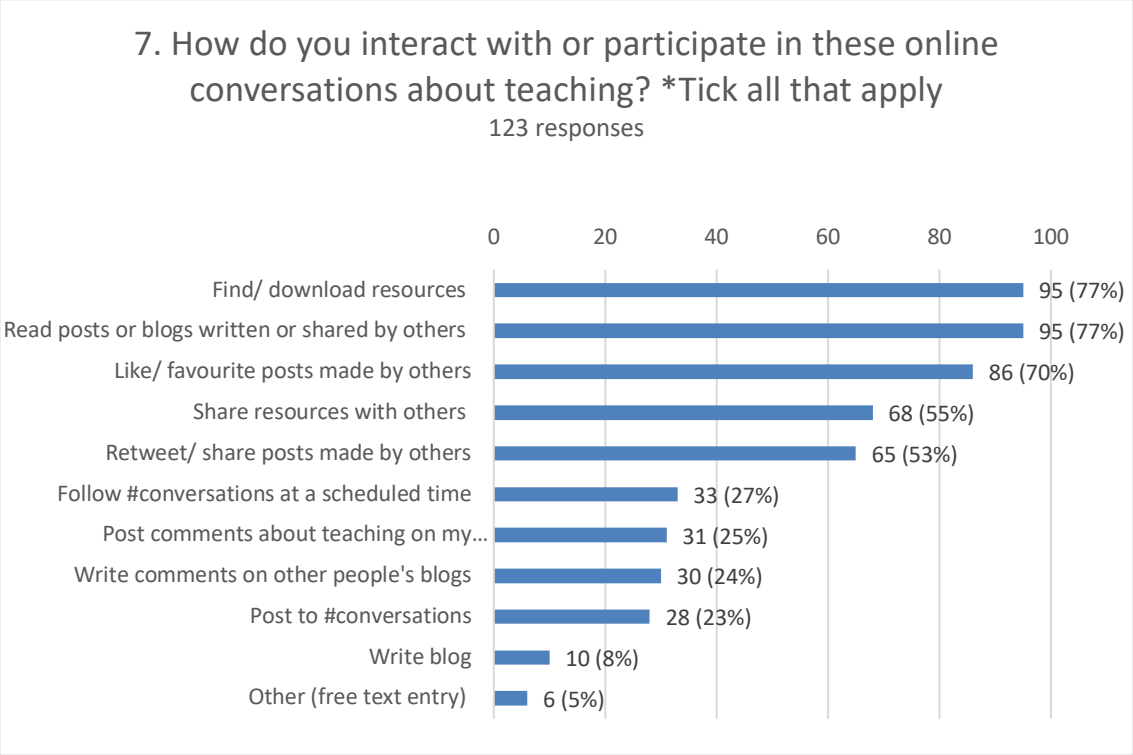


Figure 13: Q7 Modes of participation

Notably, over half of respondents (55%) indicated that they 'share resources with others'. This is a more visible form of participation and supports finding from the empirical literature that argues that teachers are using social media platforms as a forum for knowledge sharing (Bissessar, 2014). 'Retweeting and the sharing of posts made by others' was a form of participation identified by 53%. The popularity of these forms of participation match Goodyear et al.'s (2014) findings in a small-scale action research project focusing on the interaction of PE teachers. Goodyear et al. (2014) found that the interactions between teachers centred on recognition and affirmation through retweeting, liking, and posts that shared resources and teaching ideas. The responses to this questionnaire indicate that this form of interaction can also be seen in the participatory behaviours of a wider sample of teachers. A concern raised earlier in this thesis was that these forms of participation focus on affirmation and recognition and do not contribute to the kinds of sustained reflection or critical discourse that is seen as essential to professional development (Cordingley et al. 2015). This is an area that is explored further in participant responses to interview and in the discussion of findings.

The number of participants who participate in a #chat conversation was lower than the literature suggested. 27% of participants stated that they 'follow #conversations at a scheduled time', 23% stated that they 'post to #conversations'. Yet, in Carpenter & Krutka's (2014a) survey of 755 educators, 73% were reported to have engaged in a #chat event. The reasons for this are unclear. Carpenter and Krutka's research was conducted with teachers in the US, and it may be that these teachers are engaging with specific professional development opportunities, such as #chats, differently. This is an area that would merit further exploration but is beyond the current scope of my research.

Approximately a quarter of participants identified that they posted comments about teaching on social media. 25% 'post comments about teaching on my homepage/ wall/ feed; 24% 'write comments on other peoples' blogs. This is far fewer than read the posts shared by others (77%), but is still a significant proportion, indicating that participants are willing to 'speak' within these spaces for professional purposes. This question did not, however, investigate what it is that participants are speaking/ posting about. This is an area explored further in the next question (Question 8) and in interview.

The least popular option chosen by participants was writing a blog (8%). Overall, the balance of participation presented in this data indicates that receptive or non-visible participation is the more popular mode use on social media. As discussed in the analysis of the interview findings, this does not necessarily mean that teachers necessarily gain less from their "vicarious learning" than those who participate more overtly in visible dialogues (Hrastinski, 2008: 1760), however, it is worth considering why teachers are more willing to read than to post, or to receive resources than to share. The reasons that sit behind the participatory choices that teachers make are investigated further in the findings and discussion of the interview responses.

Questions 8 to 10 addressed the 'when' and the 'why' of teacher participation: the topics that interest teachers, why they interact with conversation online, and when they find the opportunity to do so

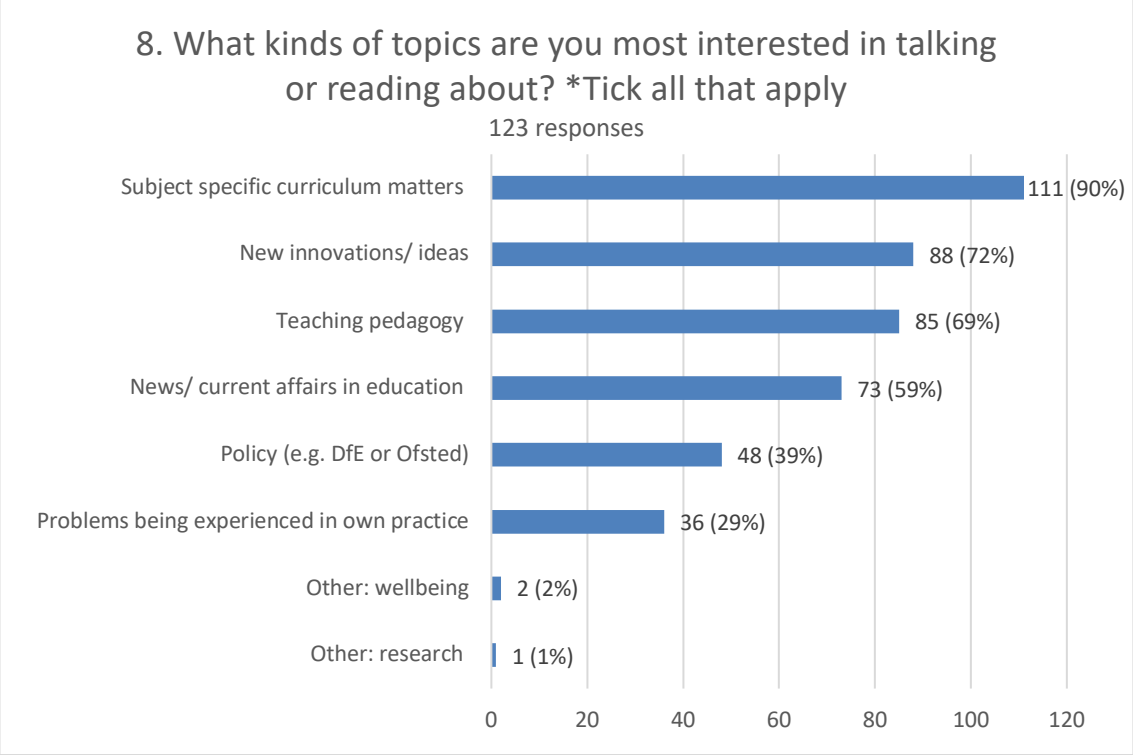


Figure 14: Q8 Topics of interest

The responses to question 8 indicate that almost all participant teachers (90%) use social media for resources or information on subject specific curriculum matters. Other popular topics were new innovations and ideas (73%) and teaching pedagogy (69%). Teachers also use social media as a news feed, with 59% stating that they participated in discussion about news / current affairs in education. Fewer use social media for policy updates or as a source of advice for solving problems in their own teaching practice (29%). This is contrary to some of the literature (such as Lu & Curwood, 2015, or Bissessar, 2014), which present social media spaces as sites of practical support.

The responses to question 9 indicated that teachers are largely interacting with social media for professional purposes in their own time, with evenings (94%), weekends (76%) and school holidays (64%) being the most popular times of use and most respondents choosing more than one of these options. Whilst a proportion of teachers participated online before (28%) or after school (29%), only a small minority used social media for professional purposes during the school day. This finding raises questions about why teachers did not find it possible or preferable to use social media professionally during the school day, and whether the professional use of social media during personal time can constitute a form of work or digital labour (Rensfeldt et al. 2018) This is a line of questioning area that emerged as a key area for exploration through interview and is discussed in the next section.

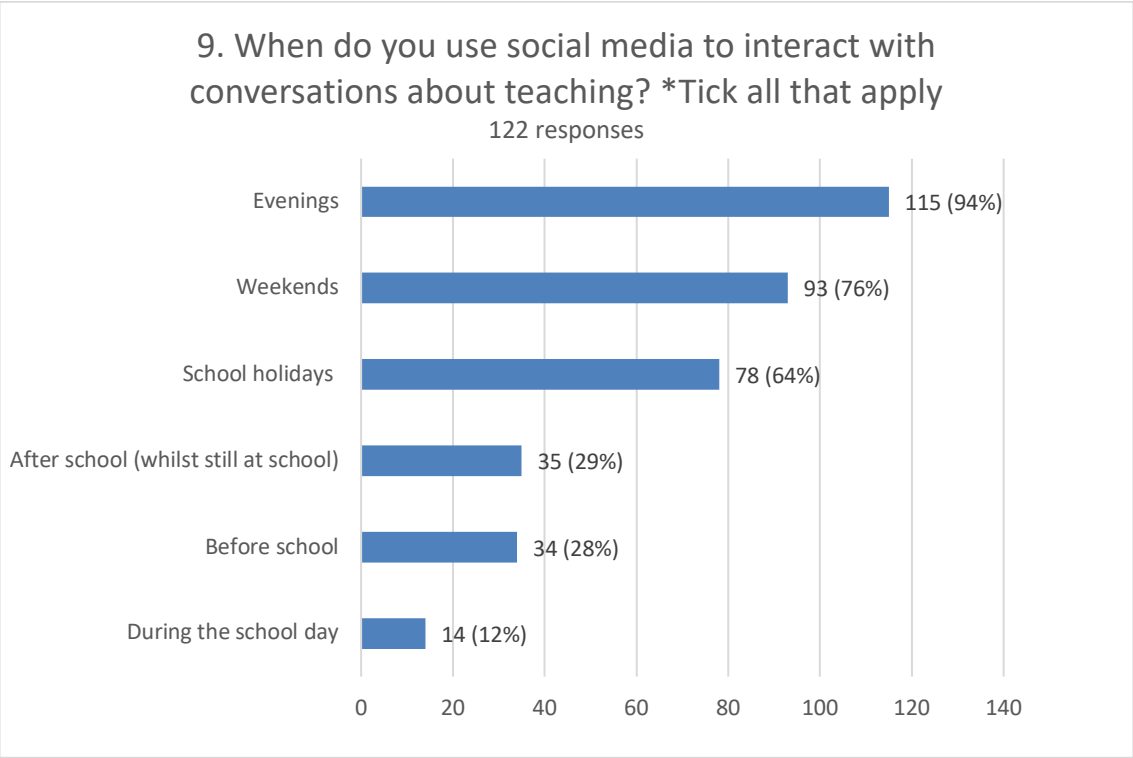


Figure 15: Q9 Time of use

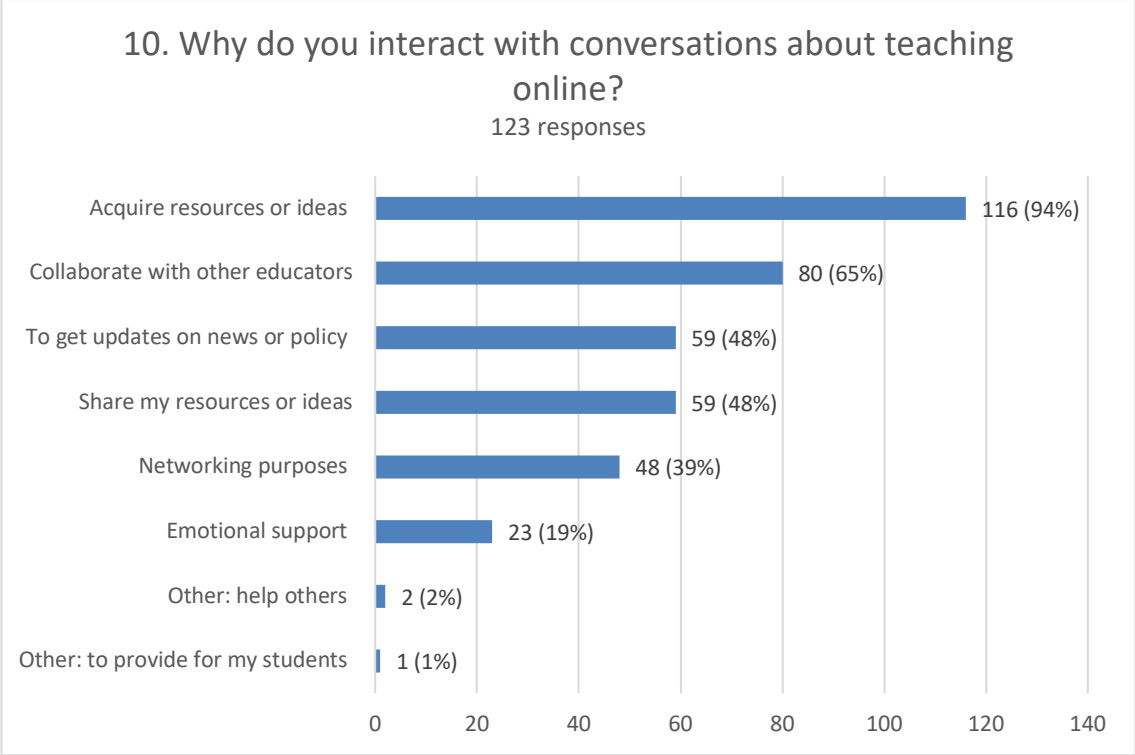


Figure 16: Motivations for participation

6.5 Summary

From the results of this questionnaire, it is clear that teachers use a variety of social media spaces for professional purposes and participation takes many forms. Teachers do not restrict themselves to the use of one particular space and discussion does seem to be multi-modal with the sharing of resources and liking and retweeting included in the participatory range that constitutes writing and 'speaking' online. What teachers are speaking about and why they are contributing in this way are answers that were not provided by the questionnaire data and needed further exploration in interview.

Another area for further inquiry was the factors that inhibit participation. The concerns that teachers expressed regarding privacy and lack of time needed to be unpicked. The issue of privacy suggests that social media may not be perceived as a safe space for teachers. There is danger of context collapse between personal and professional spheres (boyd, 2010), and risks to reputation if social media spaces are used in a way that is seen to be inappropriate (Ronnkko, 2017).

Teachers also indicated that even for those who choose to participate for professional purposes, less visible forms of participation are more common. This raised questions about why teachers choose to participate this way, and what they gain from less visible forms of participation. It was also necessary to consider how these less visible forms of interaction function as a form of professional development: whether teachers that are reading, spectating, or 'liking', are engaged in a form of vicarious participation (Hrastinski, 2008), or whether they feel excluded from professional discussion and debate.

Responses to the question about time of use raised further questions about the status of social media as a means of professional development, attitudes towards teacher use of the platforms for professional purposes, and workload. Most of the teachers questioned seemed to be using social media for professional purposes outside of the school day, however, it was unclear why. This could be because teachers are busy and they lack time for social media use. Alternatively, this could suggest that schools have imposed restrictions around social media usage, as detailed in Ronnkko (2017). Time of use is therefore an area that required additional explanation.

Overall, it is clear that social media use is complex: participants range across platforms, and across different contexts within platforms for many different reasons. Although the data from this questionnaire cannot provide any straightforward insights regarding typologies of use or

dominant trends, it does illustrate that social media spaces have diverse potential for professional use by teachers. As Miller et al. (2016) states, social media is “another place in which people live” (7), so it is also another space in which people work. The ways in which teachers communicate and collaborate are as varied on social media as they are in the workplace. Yet, not all teachers are communicating within these social media spaces in the same way and their reasons and motivations need further exploration for the data to be meaningful. Therefore, the initial landscape of usage established by this questionnaire, and the concerns, issues and areas of interest that it presents, are now further explored and investigated in interview.

Chapter 7 Interview Findings

The interview findings presented in this section provide the detail of the reasons and motivations behind particular forms of participation in social media spaces by teachers: the "different ways" that teachers participate in "different contexts" online and their "different reasons for doing so" (Dreier, 2009: 196-197). The diagram detailed on the next page (figure 17) represents the balance of these reasons and the proportional weight given to each of the factors that inhibited or motivated social media participation by teachers. This diagram was created using the thematic coding from the coding process in Nvivo Pro. The proportion of comments for each interviewee coded under each theme were presented within the software as a percentage figure. These were added together to create an overall proportion that is illustrated as a circle in figure 17 (for a more detailed breakdown see the thematic weighting table in appendix 13). Larger circles represent a larger proportion of comments from participant interviewees under that particular theme. Smaller circles illustrate that that theme was spoken about less in interview, or by fewer participants (this smaller weighting should not, however, necessarily be taken as an indication of the importance of that particular theme to individual participants).

Similarly to the diagram, this chapter is structured into two parts to facilitate a clear presentation of findings:

- factors that inhibit teacher participation in social media spaces;
- factors that motivate teacher participation in social media spaces;

Within each section, the relevant themes illustrated in figure 17 are presented and explored through the voices of the teachers interviewed. Under inhibiting factors, issues to do with security, judgement, work-life balance, and access to support in person are introduced. The choice of non-participation is also presented through the contributions of three interviewees and the theme of unfamiliarity is raised within this section. Under motivating factors, the themes of resources, discussion, advice and guidance, and networking are explored. Reading/spectating is not presented as a separate section but is a participatory choice that weaves through participant interviews. Similarly, isolation is a theme that is threaded through participant interviews in other sections particularly when they are discussing access to resources, advice and guidance. The use of school accounts refers to participant use of school branded social media accounts to promote school business or contact parents or pupils. As this is not a form of social media use that is focused on professional development, or teacher discussion, this has not been examined as a separate theme. However, school accounts were frequently referred to by teachers in interview

and the use of these social media accounts has an impact on other factors such as work-life balance. Therefore, this area is explored below in reference to these other themes and factors.

From the 230 questionnaire respondents, 26 teachers volunteered for interview. The findings are structured thematically, however, to ensure an understanding of the participants who voiced the words, participants have been chosen to 'speak' in each section. All participants are given an opportunity to voice their participatory choices, but are included in a particular thematic section because they voiced their thoughts about that area or issue particularly clearly. It needs to be acknowledged that participants spoke more widely about their participation during interview, and in doing so touched on multiple themes. To reflect this, whilst each participant is introduced as the main speaker under a specific theme, their voices are also called upon to add to the comments of other participants in other areas. In order to gain a more complete picture of the people who are speaking and their reasons for (non)participation, an illustration of the interviewee's responses is included within each section. As participation is subjective and changes in response to the events in other social contexts of actions in participants' lives (Dreier, 1999), these participatory 'snapshots' present the interviewee's participation at a given moment in time, and not a fixed representation of their participatory practices.

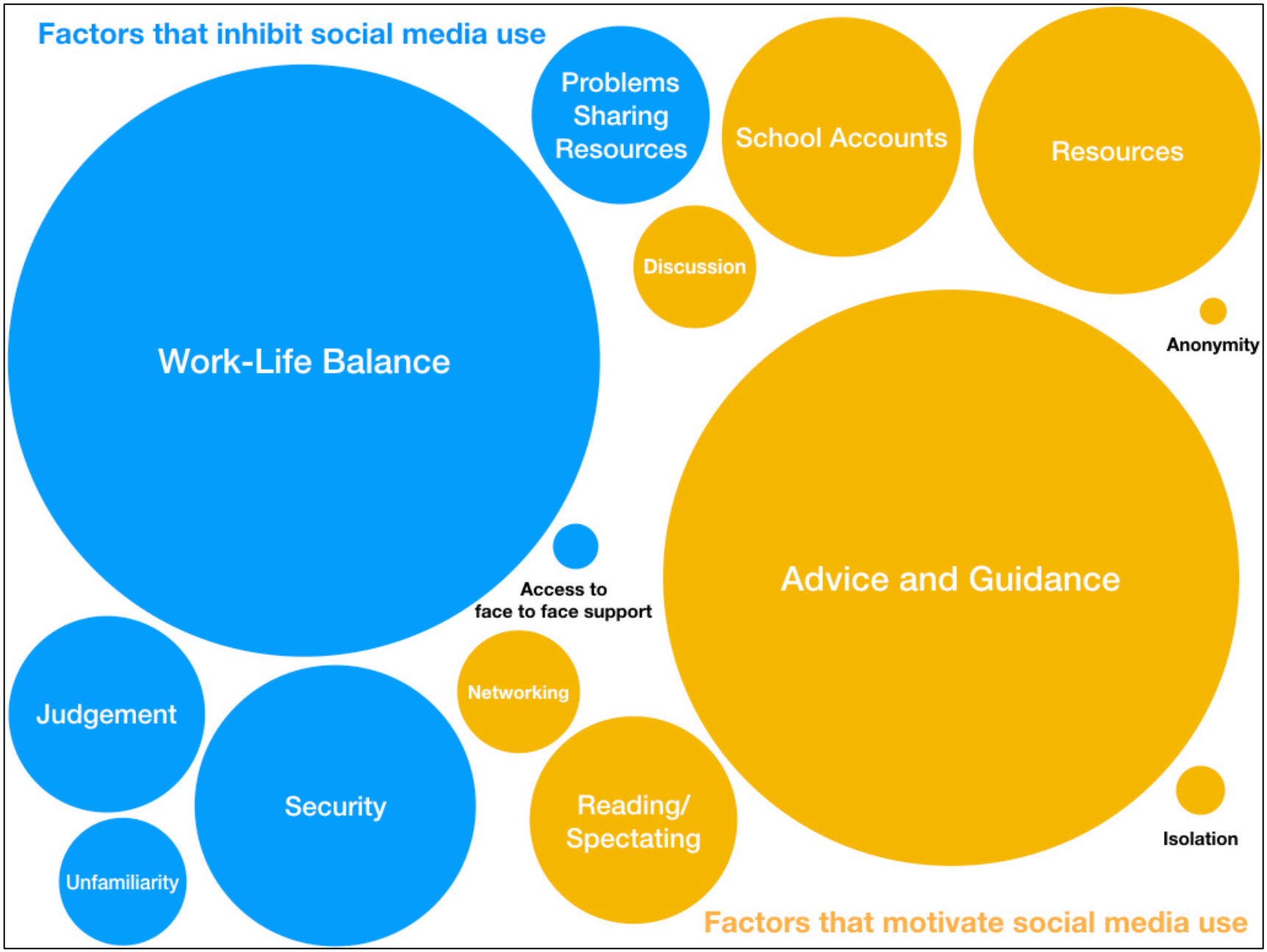


Figure 17: Proportional representation of coding of interview themes

7.1 Factors that inhibit teacher participation

7.1.1 Security

One of the most frequent reasons that teachers gave to explain the factors that inhibit participation is fear surrounding security on social media. 16 of the 26 interviewees referred to issues regarding security as something that inhibited their social media use for professional purposes. Although teachers do not use social media platforms with the intention of contacting pupils, they expressed concern that if they were found to be present on social media, they would be 'found' and then their professional standing would be under threat. In the data that follows, Debbie, Mike and Ursula are introduced as the key participants who reflected deeply upon this issue.

Debbie: "it's the safeguarding thing, over and over and over again"

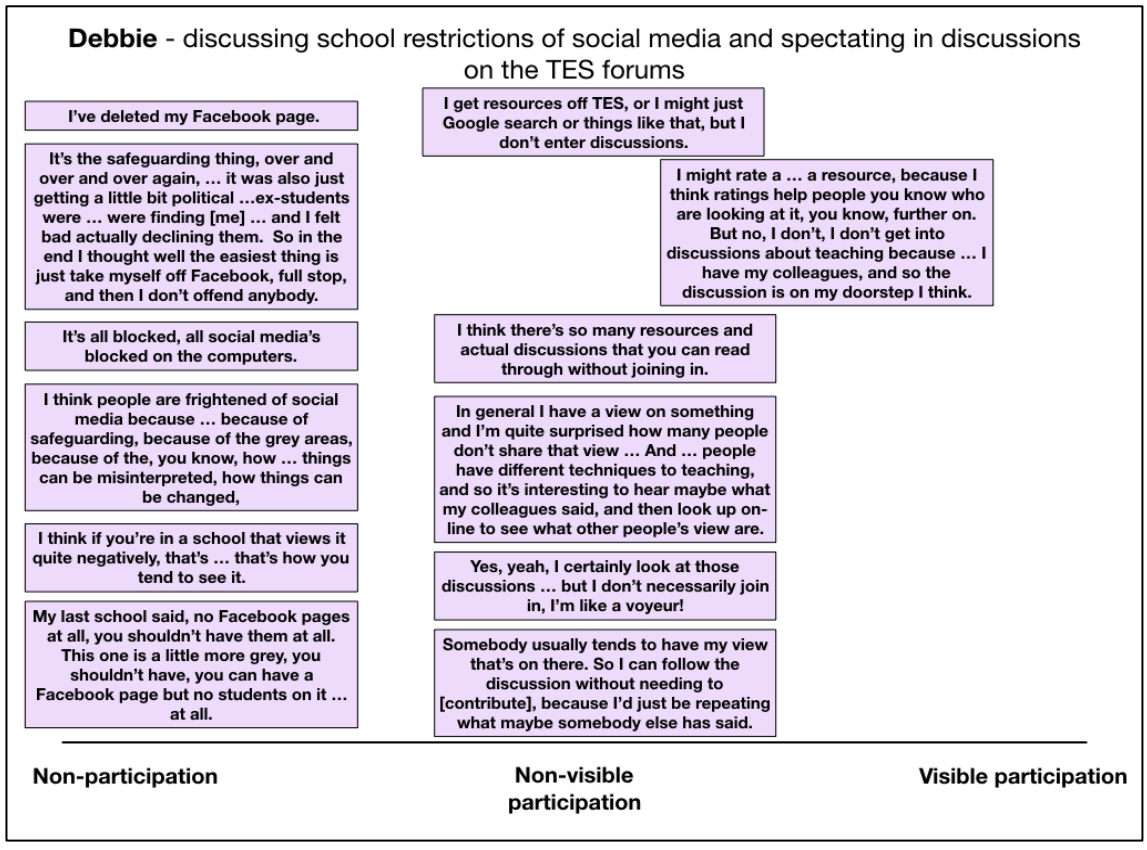


Figure 18: Debbie

Debbie's lack of visible participation on social media for professional purposes has been shaped by the attitudes of the schools that she has worked in. She states, "*I think different schools seem to have different policies based on Facebook and social media,"* presenting a picture of shifting expectations of teacher participation, shaped and applied differently by each institution.

> *"My last school said, no Facebook pages at all, you shouldn't have them at all. This one is a little more grey, you shouldn't have, you can have a Facebook page but no students on it … at all." (Debbie)*

Debbie identifies that this lack of certainty is problematic for schools and teachers. She speaks of "*horror stories" and "grey areas"* where students contact teachers and "*things get misconstrued", "misinterpreted" or "can be changed".* From this perspective, social media is risky. Debbie presents a picture of shifting and uncontrollable spaces, with the choice to participate possibly coming at considerable professional cost. For Debbie, this ever-present fear of inadvertently stepping over acceptable professional boundaries is a new and unwelcome professional position and marks a change in the relationships she used to have with her pupils:

> *Oh it's the safeguarding thing, over and over and over again … you know ex-students were … were finding [me]… And .. I would decline them, I didn't used to, I've been teaching twenty three years and … but the world is a whole different place than when I started teaching, which I thought was sad, because a lot of the time they were getting hold of me to say, Miss, just to let you know that I went on and did this, that or the other, you know, and I felt bad actually declining them. So in the end I thought well the easiest thing is just take myself off Facebook, full stop, and then I don't offend anybody (Debbie)*

These concerns have shaped Debbie's participation on social media as a whole and have resulted in self-imposed exile. She has removed herself from Facebook entirely, and when interacting on other platforms (specifically the TES discussion forums) choses to remain invisible: she reads and downloads resources and listens to discussion allowing her opinions to be voiced by other participants. She describes herself as a *"voyeur"*, researching the opinions of others, but only expressing her own in person to the colleagues "*on her doorstep".*

Mike: "you never, ever mix the two"

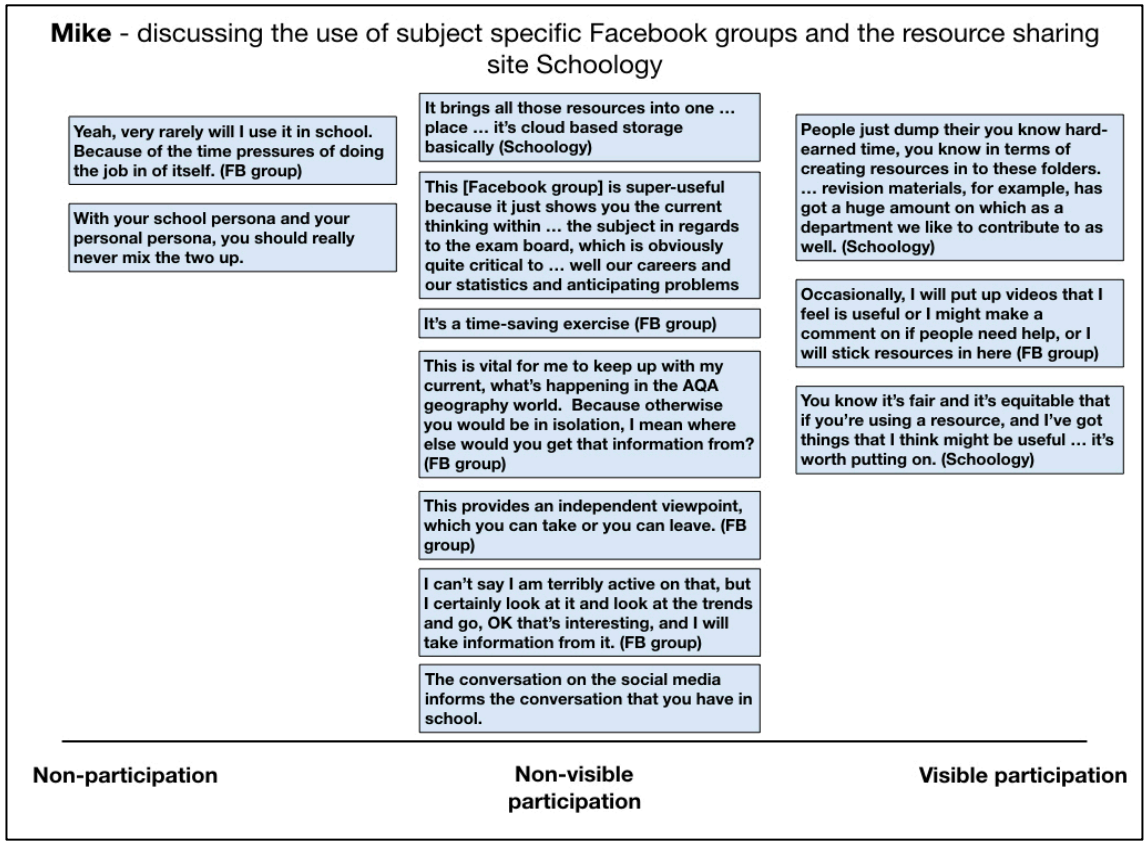


Figure 19: Mike

Mike echoes Debbie's presentation of social media as a threatening space. He recounts his own *"horror story*" of primary school teachers caught pole dancing on a night out who were held to account for their behaviour because a parent "*got hold of"* images on an "*open social media account".* Mike is a NQT mentor and perceives teachers themselves as being in need of safeguarding on social media in order to protect them from adverse consequences. For Mike, the solution lies in a clear separation of social media spaces.

> *"You don't have a personal account that you would use for ... your kind of ... school, you know with your school persona and your personal persona, you should really never mix the two up." (Mike)*

He iterates the need to be "*very careful*" when navigating these boundaries. If a teacher chooses to tweet about their professional practice, there are rules that need to be followed:

> *"You probably shouldn't mention the school by name, you shouldn't probably mention where you work, and you probably shouldn't link in pictures that you've taken on your*

> *phone of children that don't necessarily have photos that have or have not got permission to be used in the wider context. (Mike)*

Yet, even in the identification of these rules, Mike displays uncertainty: each rule is prefaced by "*probably*" indicating that there is as yet no clearly defined shared code of practice. There is more clarity around the consequences of breaking the rules, however, with Mike identifying that transgression runs the "*risk of discipline under Standard Part 2*". The reference to the teacher professional standards here suggests that the use of social media falls into the category of ethical behaviour. These standards refer to teachers' responsibility to "*uphold public trust in the profession and maintain high standards of ethics and behaviour, within and outside school*" (DfE, 2012: 10). Mike's comments imply that this professional duty is something that must be exercised at all times, especially when using social media, whether a teacher is physically at school or not. This echoes Wenger's (1998b) definition of participation as being something that occurs in a community that is ongoing, even when the participation is occurring in a different context, the sense of accountability to the community – and in this circumstance, the professional role - remains.

In contrast to Debbie, concerns over safeguarding and security have not limited Mike's participation online. Instead, Mike has created 'safe' spaces within social media platforms, in particular through the use of subject specific Facebook groups. These groups are accessible through a personal Facebook account, but membership is restricted to other teaching practitioners, usually of a particular subject specialism or exam board. For Mike, the professional benefits of being part of these Facebook groups outweigh the risks. These groups provide access to "*current thinking*" which is "*quite critical to … our careers and our statistics*". Mike presents non-participation as carrying a risk of its own: without involvement in the discussion on social media he and his colleagues would be "*in isolation*" and cut off from the information they need: "*I mean where else would you get that information from?"*

Mike also perceives that participation on social media groups carries its own code of conduct and states that it is "*only fair and equitable*" that if he takes information and resources from these spaces then he should reciprocate. He therefore shares videos, or school resources on Facebook and on the resource sharing platform 'Schoology'.

What Mike presents in this interview is a landscape of competing ethics. His professional role mandates careful self-policing of behaviour and extreme caution when posting information: the social media community encourages the free sharing of resources in a tacit quid pro quo that recognises the time and effort of other users. Mike has created a personal solution to these

conflicting demands by clearly demarcating professional and personal spaces within existing social media platforms and then following a set of self-generated rules when sharing information. This seems to have enabled him to participate in a way that he feels mitigates the threat that social media potentially poses to his professional standing.

Ursula: "I'm incredibly difficult to find on Facebook"

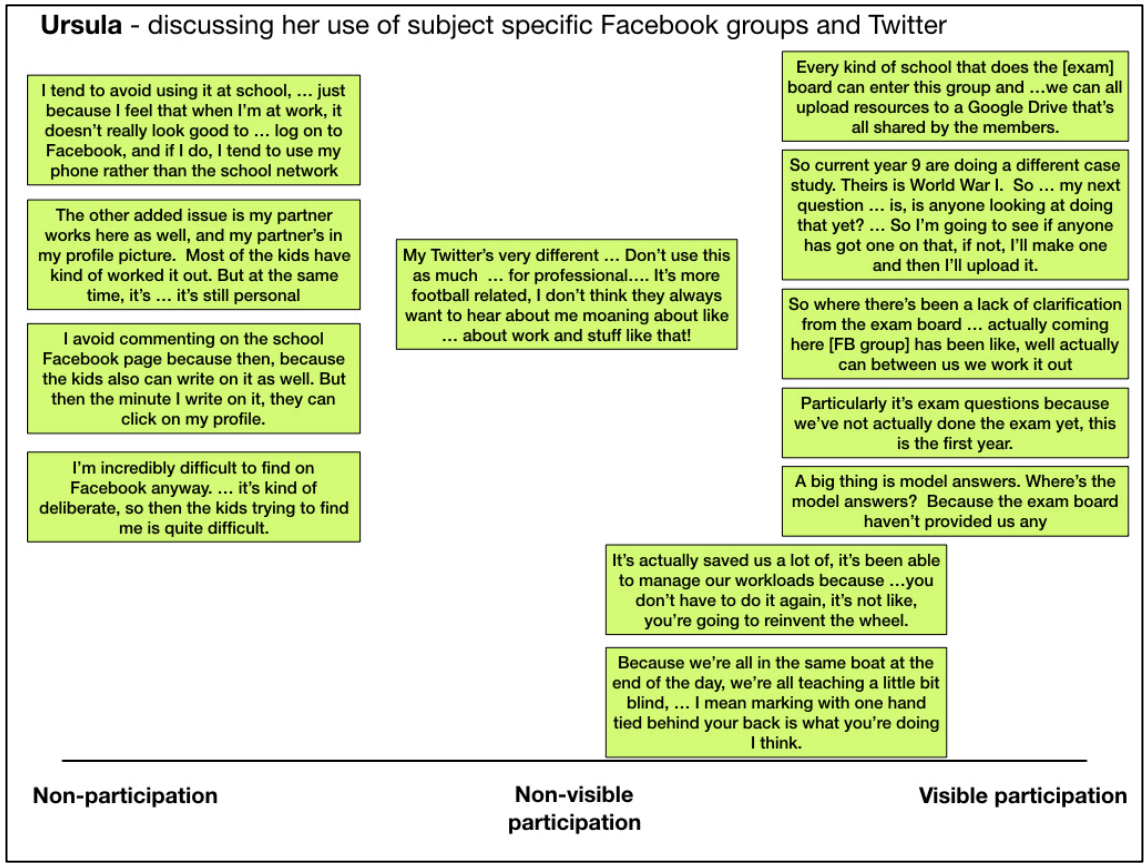


Figure 20: Ursula

Ursula's 'horror story' centres around a teacher who was added to a social media group without his knowledge or consent. The context of the group, '*a load of school girls who obviously had a bit of a crush',* resulted in embarrassment and a difficult professional situation: *"he was mortified ... like he looked ill … he had to go and speak to the head teacher".* This story has an ending with no professional consequences for the teacher – the girls were spoken to, parents were notified – however, for Ursula, the incident illustrated the potential dangers of a presence on social media and prompted her and her colleagues to take precautions: "*after that …we all looked each other up to see how high our privacy settings were … and then adjusted our privacy settings".*

For Ursula, it is important that she "*can't be found"* because this then means that she is in control: *"I'm in control of who adds me … and then if I want to add someone, I'll add them."*

Maintaining this level of privacy means that her behaviour in certain contexts needs to be modified. Her school has a Facebook page that it uses to communicate with parents and pupils, and teachers use their own Facebook accounts to participate in this space. Ursula avoids

commenting on this page because a visible presence could result in her being 'found' by pupils: "*the minute I write on it, they can click on my profile."* Ursula also creates user names that do not match the name she uses at school, creating an extra layer of difficulty for anyone trying to find her.

An additional issue for Ursula is that her partner works at the school and features within her social media posts. Whilst she is open about her relationship, "*most of the kids have worked it out*", she strives to maintain a professional tone at school: "*when we're at work, it's Miss [surname] and Miss [surname]".* There is an added later of complexity in Ursula's situation as she and her partner have to navigate the professional norms surrounding their same-sex relationship and how this is perceived by pupils and parents. Her use of privacy settings allows her to set personal/ professional boundaries and strictly control the flow of information between these contexts.

Similarly to Mike, and despite her awareness of the security challenges that the use of social media platforms presents, Ursula is an enthusiastic user of subject specific Facebook groups. She sees these groups as a valuable source of information, providing resources such as booklets for class use and model answers. In her subject the exam specifications and grading system are changing, and she uses the Facebook group to provide her with the clarity she feels she lacks from the exam board: "*between us we work it out*". The resource base shared between teachers has enabled them to "*manage [their] workloads*" and provided support in a time when they have felt as if they were "*teaching a little bit blind*". In solidarity with these aims, and within the confines of this specific Facebook group, Ursula is happy to participate overtly, sharing resources that she feels may be useful to others.

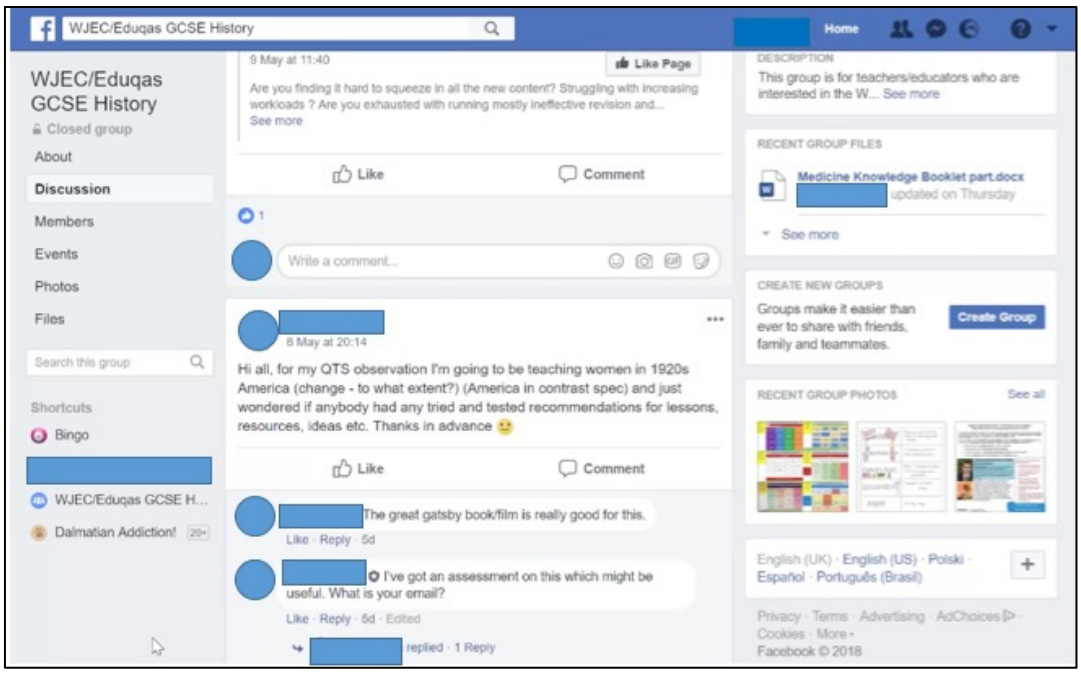


Figure 21: Ursula's subject specific Facebook group page

What Ursula, Mike and Debbie express is an awareness that social media is not a secure space for them as teachers and that in order to protect themselves as professionals they have to modify their participation. Each interviewee has developed their own solution: Debbie withdrew, Mike participates only in particular spaces, and Ursula contributes only behind layers of privacy so she cannot be found. Although these three teachers were particularly articulate in explaining how they negotiate issues of security in their social media use, they were not the only participants to express these concerns. Others state that participation on social media without privacy settings makes them feel "*very vulnerable*" (Fran), and that "*I don't want my name to splattered on all these sites*" (Gillian). One interviewee uses her maiden name at work, but her married name on Facebook "*so they can't find me"*; another interviewee has chosen to have no digital footprint entirely because he has a child under care (Tom). For these participants, their participation online is a carefully calibrated bespoke solution that offsets the benefits of online participation against the need for security in other areas of their professional and personal lives.

7.1.2 Judgement

Another frequently referenced reason for not participating visibly on social media was a fear of judgement. 13 interviewees referred to this theme. Participants were concerned about the judgements that may be made about them and their participation by the other members of the online community, and also about the judgements that could be made by other teachers within their school if their participation on social media were made known. Susan and Sophie were the participants who voiced the issues that emerged around judgement in the interview data and they presented their participation as constrained by this factor.

Susan*: "*you tarnish your reputation as an original, hard- working teacher"

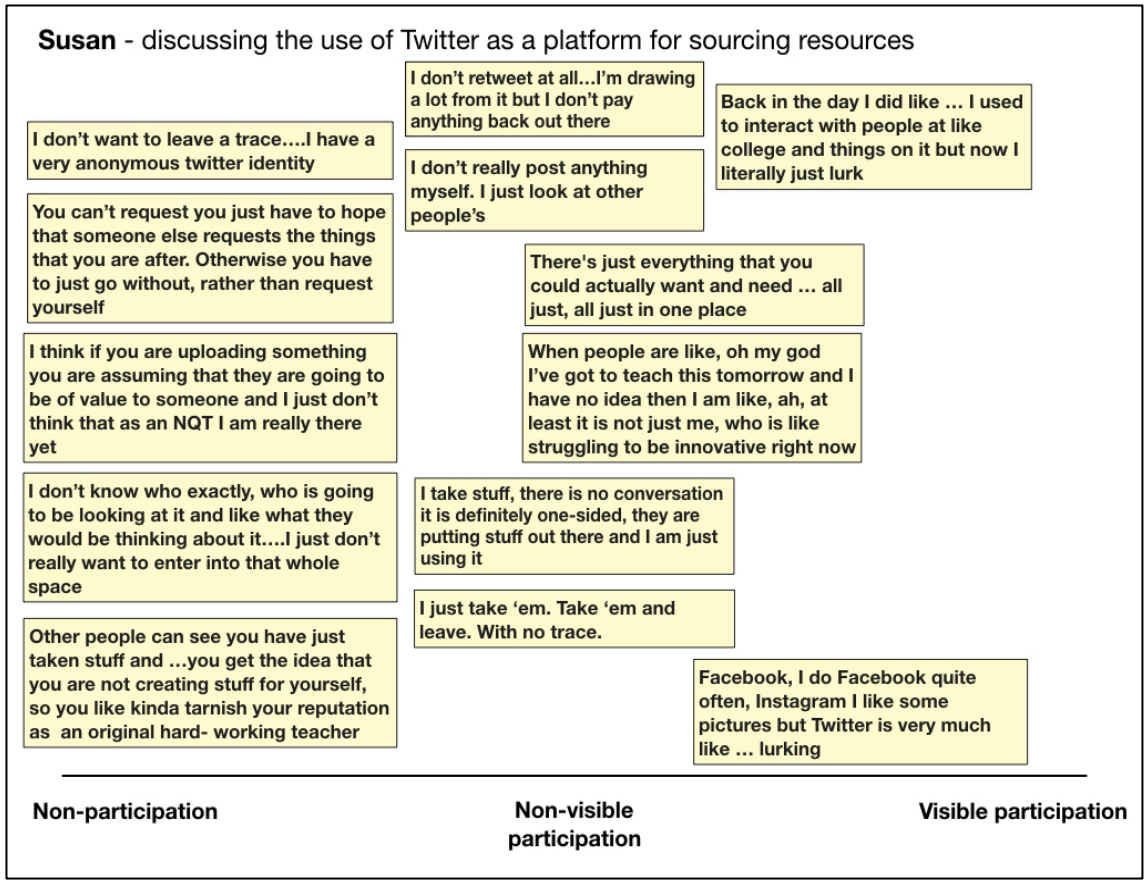


Figure 22: Susan

Susan uses social media in her personal life, she posts photos and comments to Facebook and to Instagram, and has a history of using social media previously with other students at college; however, in her professional capacity as a teacher she defines her most common mode of participation as 'lurking': *"I used to interact with people at college …but now I just lurk"*.

Susan recognises that social media platforms are a useful source of information and resources, *"there is everything that you could want and need …all just in one place"*, and interacts with the platforms as a consumer: *"I take stuff, there is no conversation, it is definitely one sided, they are putting stuff out there and I am just using it".* She understands the imbalance in this situation and that she is ignoring the tacit social media quid pro quo but, unlike Mike, this does not motivate her towards sharing resources of her own or even acknowledging the efforts that others have made in sharing their materials: *"I don't retweet at all. I am drawing a lot from it, but I don't pay anything back out there".* This is partly due to her lack of experience as a teacher: Susan was an NQT at the time of the interview and referred to her contributions as being of less worth than those from more experienced teachers:

> *I think the people that share things online are like probably quite well-established teachers and … I think if you are uploading something you are assuming that they are going to be of value to someone and I just don't think that as an NQT I am really there yet. I don't really want to assume that because it is a bit, a bit early. (Susan)*

This is a view that is also expressed by other inexperienced teachers such as Natalie, "*I don't feel I'm experienced enough to be able to put that out there*", and Maddie "*I think there's also an element of what do I have to contribute straight away?".*

Yet, for Susan, her participation online is inhibited by more than a lack of professional confidence. Similarly to Ursula, her apprehensions about visible participation also seem to centre around concerns about being 'found'. She states that *"I don't want to leave a trace"* and maintains "*a very anonymous Twitter identity*". But in contrast to Ursula, Susan is not worried about pupils finding her, she is concerned that she will be identified as a social media user by her colleagues and that her professional reputation will suffer as a result. This is because Susan associates the use of resources sourced online with a lack of professional integrity:

> *"You know you get those people who just teach TES lesson straight off and would be happy to just take stuff just off here and teach it as it is without adapting it for like the needs of the classes." (Susan)*

She uses the example of the "*TES lesson"* as a shorthand for a certain kind of careless teacher: one who would take a teaching resource from an online platform and use it with the class without taking due care regarding its suitability for the learners. She worries that if *"other people can see you have just taken stuff",* then they would draw the same conclusions about her and her own teaching and wonder about the credibility of the rest of her practice: *"I think they'd start doubting whether your original stuff is actually yours."* For this reason, Susan will not share the resources

that she finds online with other members of her department. Fear of judgement also prevents her from sharing her work with a wider audience online, "*where I don't know exactly, who is going to be looking at it and what they would be thinking about it".*

As a new teacher, it is clear that Susan feels vulnerable to judgement about her capacities as a teacher both on and offline. Social media platforms can provide her with the information that she needs to support her professional development in the early stages of her career but she fears that overt participation means acknowledging her need for these resources and undermining her nascent professional reputation. This means that Susan operates online by stealth. She behaves as a consumer and makes her participation invisible: *"I just take 'em. Take 'em and leave. With no trace".*

Sophie: "I really don't want to be in the firing line of anything"

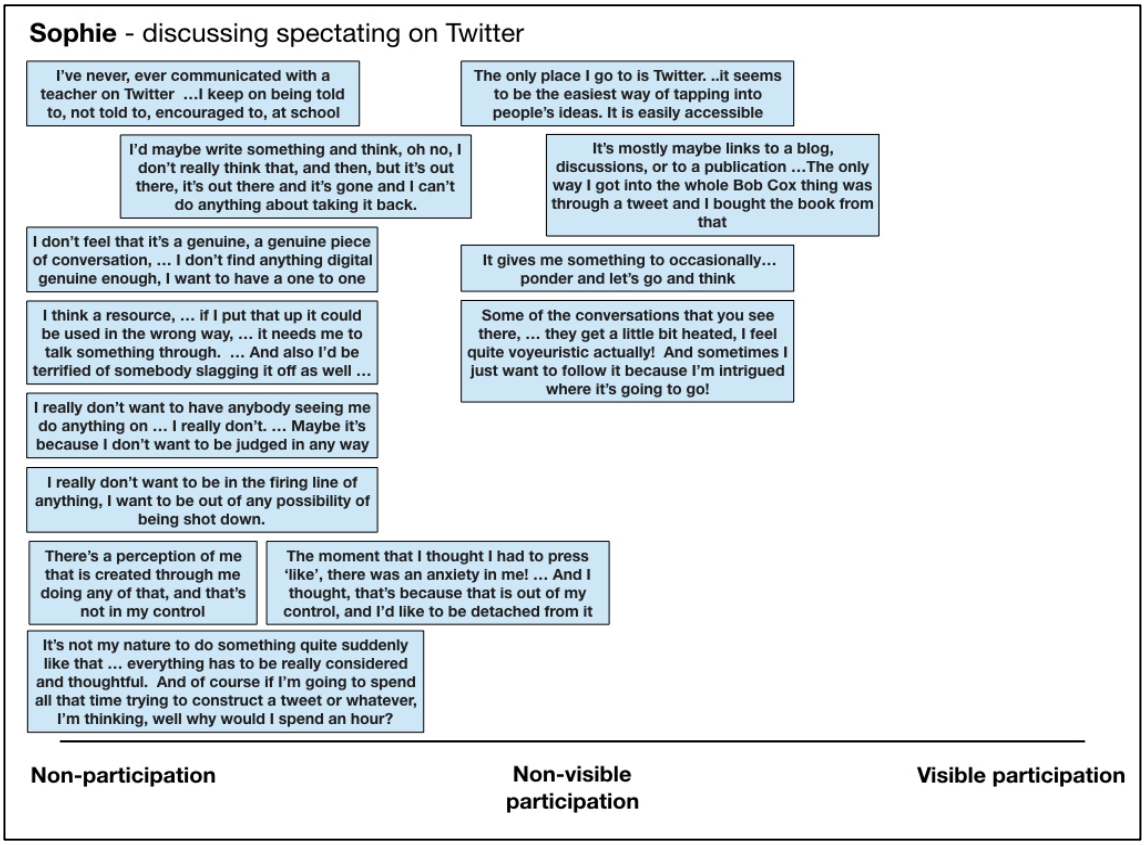


Figure 23: Sophie

Sophie voices the perspective of the more experienced teacher. An acknowledged expert in her subject with over 20 years' experience, Sophie has held leadership roles and trains other teachers. However, she avoids visible participation on Twitter because once a contribution is out there "*it's gone and I can't do anything about taking it back*". She fears that her resources could be "*used in the wrong way*", and she is "*terrified of someone slagging it off"*.

The school that Sophie works at is positive about the use of social media for professional development and actively encourages members of staff to use Twitter. However, despite this encouragement, Sophie has never communicated with another teacher on this social media platform. She prefers to conduct her discussions in person, "*I don't find anything digital genuine enough, I want to have a one-to-one*", and puts this preference down to having the "*illusion of control*" because she knows how to "*manage*" a physical conversation.

For Sophie, Twitter is unmanageable because her audience is unknown. It lacks the "scalable sociality" (Miller et al. 2016) that enables comfortable participation. When discussing the prospect of participation, Sophie expresses anxiety that she will be "*seen*" and "*judged*" but does

not specify who she might be seen or judged by. There is an amorphous unknown and potentially hostile audience of "*people*" within this platform, who will form perceptions that are out of Sophie's own control. Sophie's fears about her audience on Twitter are supported by her colleague Dawn, who Sophie chose to be interviewed with. Dawn states that she finds "*some of the discussions … quite intimidating to chip into".* She perceives other participants on Twitter as "*cliquey*" and *"forming a group that I'm not in"* and is fearful that she *"might be shunned or laughed at"* if she were to contribute.

Despite her greater experience and expertise, Sophie's concerns are very similar to Susan's. She feels that her professional reputation is at risk of harm: by participating visibly on social media she is placing herself "*in the firing line*" and "*could be shot down*". Although her professional reputation is well established in her workplace, it is still something that is under threat online and needs to be protected. This sentiment is also echoed by Karen, another experienced teacher, who avoids asking for advice online because she feels that "*it kind of undermines my credibility that I've got my colleagues on my personal Facebook account seeing me ask a question about a job*".

Sophie states that her actions might be "selfish" because "*I'm benefiting massively from other people constantly"*, and, like Debbie, speaks of her vicarious participation as "*voyeuristic*" suggesting a sense of discomfort at remaining unseen. Her participation is intransitive and continuous: she ponders on the ideas that she reads or buys the books of authors that she finds through their online activity. However, for Sophie, as for Susan and Debbie, the only way to manage the anxiety that more overt participation generates is to stay "*detached*" and invisible, because this is ultimately the only way to retain full control over the judgements of others.

7.1.3 Work-Life Balance

A recurrent theme in participant interviews was the concept of boundaries and how the use of social media is making the separation between work and home more difficult. All 26 participants discussed work-life balance either when talking about how they balance personal and professional use, when and where they use social media, or how they find participation in a social media context overwhelming. The use of school-branded social media accounts and the expectation that these will be used for informal communication with teachers, parents and pupils is one element that is making the boundaries of the institution more porous. Guidelines for the use of these accounts are not clear, the labour of maintaining them or other social media accounts being used for professional development purposes is not recognised, and there is still a stigma surrounding use of social media in the workplace. Therefore, social media use is something that mostly happens at home: questionnaire responses indicated only 11.5% of teachers would use social media during the school day. In this section Kathy and Beth voice their experiences and responses to these issues.

Kathy: "Cheerleading Retweeting"

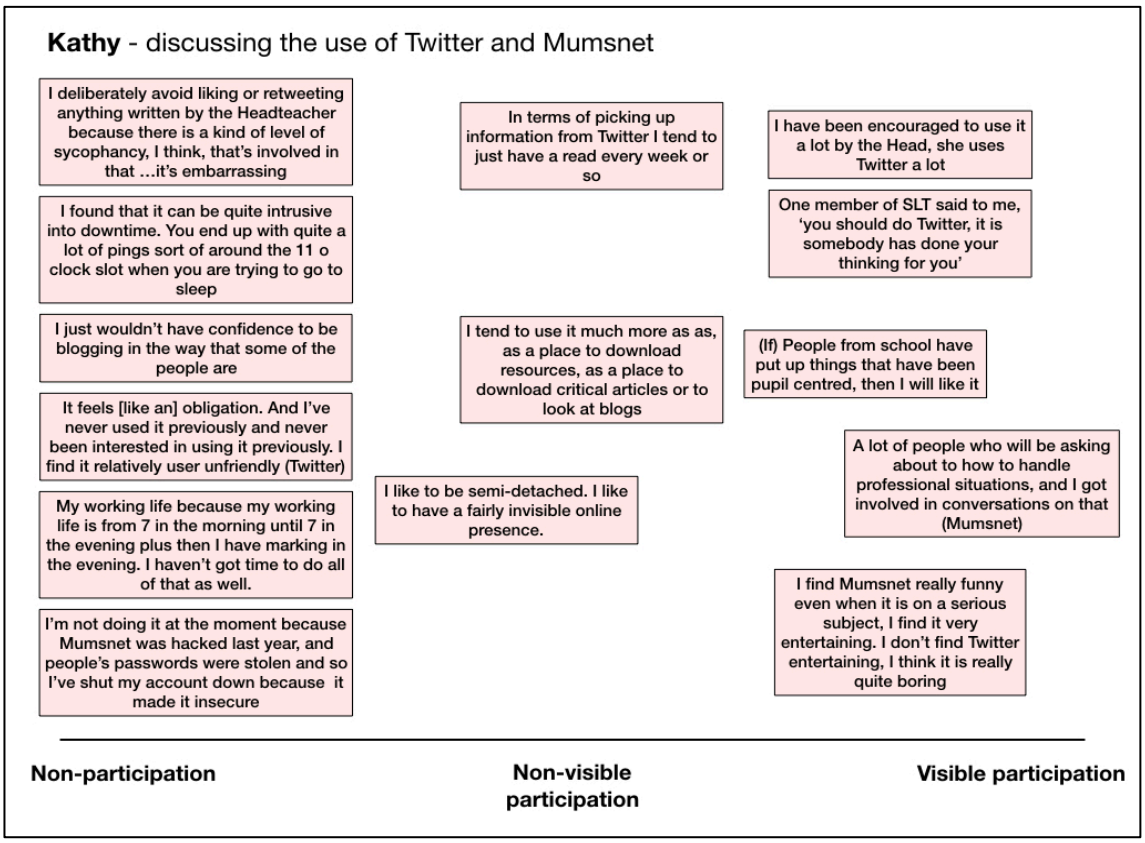


Figure 24: Kathy

Kathy is an experienced teacher; she has been in the classroom for nearly 20 years. She is open to using social media for both personal and professional purposes. A self-identified Twitter 'lurker', she prefers to read the posts of others, interacting with social media to share or acquire resources, or get updates on news or policy. She uses social media for professional purposes in her own time – either in the evenings or at weekends.

For Kathy, the professional expectation that she will use social media as a teacher is clear. Her Headteacher is an enthusiastic user of Twitter, "*she tweets regularly*", and encourages the staff to follow her lead. Departments within the school have also adopted an online presence, and are using Twitter as a virtual form of a display board:

> *"There are quite a lot of departments in the school where they are putting up pupils work, and they are celebrating achievements //So, I er follow" (Kathy)*

In her role as a teacher, and as a member of the leadership team, Kathy feels an obligation to follow suit. However, it is implied that she is motivated by a sense of expectation: the use of the conjunction in "*So, I er follow*", suggests that she is complying as a matter of course, and that she does so "*just to be encouraging in a general sense*", almost as a tokenistic gesture.

Here Kathy seems to be applying an aspect of her role which is established as part of her teacher's role offline, the celebration of pupil achievement, to acts of participation within an online context. The 'following' of a department's Twitter account is considered to be the equivalent of encouragement of departmental and pupil effort. Kathy also extends her encouragement or "*cheerleading*" to retweeting, or liking of department posts, when these are pupil centred. She recognises that the traditional conceptualisation of a school department as being solely located in the physical school structure has expanded: these departments, and the relationships that constitute them, are now "simultaneously material and ephemeral, physically located and dispersed" (Pederson & Lupton, 2016: 2). Therefore, the participatory behaviours that are professionally appropriate, such as the recognition of pupil achievement, or the efforts of the department that is being line-managed, also need to be enacted online.

However, this use of social media is not something that Kathy is particularly comfortable with. Whilst she will encourage the work of pupils, she draws a line at affirming the posts of her colleagues through visible participatory acts such as liking or retweeting. She specifically avoids "*liking or retweeting anything written by the Headteacher*" or other colleagues, stating that is equivalent to "*sycophancy*" and is embarrassing. For Kathy to commit to contributing online there has to be a more principled reason or cause to propel her beyond the embarrassment of her participation being visible to others. She states:

> "*If it was a, a kind of like a, a principled stance and you were going out there and you were trying to put up ideas about something that is very important that is a kind of core value, then yes, you might do that.*" *(Kathy)*

Celebrating the achievements of children seems to be the kind of core value that would motivate her to amend her preferred participatory behaviours. This is an example of Dreier's "personal stances" and how these can provide consistency across online/ offline contexts and guide participants in modifying their actions in different contexts of social practice (Dreier, 1999: 21; Dreier, 2009). However, without the motivation of this core value, even the direct encouragement being provided by Kathy's professional context does not overcome her personal antipathy to being visible online.

"I like to be semi-detached"

In her interview Kathy recognises that the content found on social media can be interesting and valuable, but she demonstrates antipathy towards the professional use of social media and even resentment when discussing the impact that it can have on her working life. She describes a clash between her personal and professional contexts, stating that "*I found that it can be quite intrusive into downtime*", due to the use of alert prompts that notify her when other people are posting on Twitter. These are portrayed as an irritation, as "*pinging at you*", and as an intrusion into her personal space, especially late at night when she is trying to go to sleep.

For Kathy, this extension of teacher's role is an expectation too far. She describes her working life as extending from the early in the morning into the evening, and that whilst blogging, writing or communicating a professional opinion is "*valuable*", it is extra and represents a substantial commitment of time and effort. Despite the encouragement of her Headteacher, who seems to be setting the tone for expected use of social media that staff are less inclined to adopt, use of social media professionally remains optional for Kathy: she feels that "*work has enough of me*", and is not entitled to more of her personal time.

Kathy's descriptions of social media as intrusive and embarrassing indicate that use of social media professionally involves transgressing personal boundaries. Miller (2016: 5) describes the English adoption of the 'Goldilocks strategy' as a mode of social media use which keeps other users at a precisely calibrated social distance: in contact, but neither too hot, nor too cold. Similarly, what Kathy seems to be describing through her resentment of the invasion of social media alerts into her bedtime routine is a new working expectation which has become too close for comfort. The metaphor she chooses for her preferred usage of social media is interesting: she

"*likes to be semi-detached*", by which she means "*I like to have a fairly invisible online presence*". This representation of her preferred participatory relationship through a particularly English form of architecture is a representation of the Goldilocks strategy in another form: a house which is close, but not too close; right next to, but clearly separated from, its neighbours. Kathy exercises her choice of the amount of personal distance she would like from work by calibrating her online participation. Like Sophie and Susan, she deliberately limits her contributions for fear of embarrassment, but also because social media is able to transgress the physical boundaries of work and home, which once separated these spheres as distinct. Her "*fairly invisible online presence*" enables her to continue to demarcate these limits and retain control over her personal space.

Beth: "*There's no time allocated for this in school"*

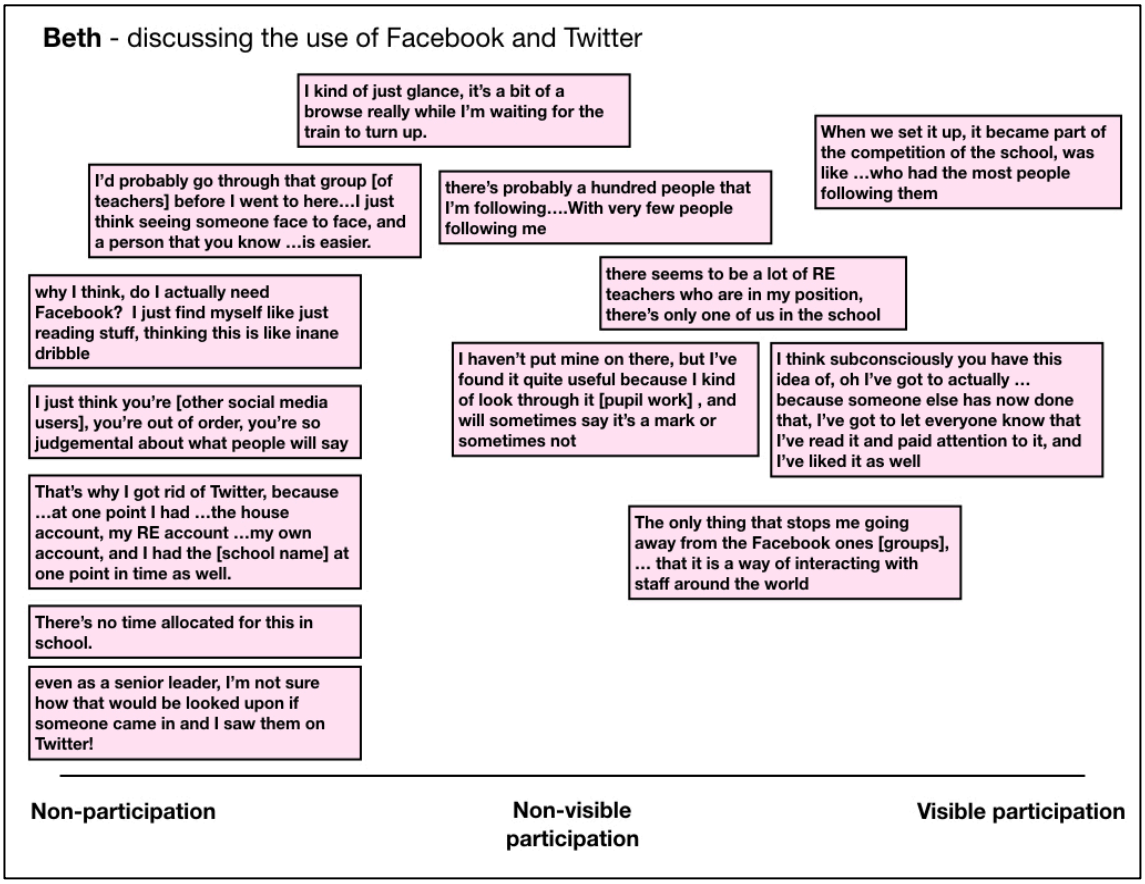


Figure 25: Beth

Beth is also an experienced teacher with leadership responsibilities, and, like Kathy, her school has set up Twitter accounts for departments and year teams. As a teacher and pastoral leader, Beth was responsible for running a number of social media accounts: "*I set up my [subject] account, I had my own account, and I had the [school name] account at one point in time as well".* Beth found the process of running these accounts simultaneously overwhelming: "*it used to drive me mad …I could not cope with my phone constantly going off*". Because the social media applications are mobile-enabled and linked to Beth's personal account details or phone number, Beth receives a notification on her personal phone every time an action, such as a like or a retweet, is performed on the account.

Beth is reflective about teacher workload and thinks the work-life balance and expectations for "*twenty-four-hour access*" in teaching are "*awful".* She is trying to find solutions to maintain some form of separation between her personal and professional spheres such as taking access to work emails off her phone; however, she still struggles to find the time to manage her social media use because "*there's no time allocated for this in school*". Beth leaves the house to commute to school

at 5:45 am and uses the time on her morning train journey to check social media. She has no time for using social media platforms during the school day because she is "*always on the go*" and, even though she is a school leader, is unsure of the acceptability of the practice during the school day.

> *"We do have CPD time but … even as a senior leader, I'm not sure how that would be looked upon if someone came in and I saw them on Twitter!" (Beth)*

Beth's ambivalence reflects the paradoxical attitudes towards the use of social media spaces by teachers within schools. As Rensfeldt et al. (2018: 2) argue, the empirical literature to date has framed teacher use of social media as relatively straightforward and unproblematic; however, "rarely, if ever, are teachers' professional uses of social media groups considered as a form of work". Schools such as Beth's and Kathy's may set up Twitter accounts that are to be used for professional purposes (e.g. department accounts that share relevant resources, or examples of pupil work) but these are to be maintained outside of school hours. This tacit expectation is a 'grey area': it not explicitly communicated, but it is nonetheless implicitly understood by teachers. As part of the interview, Beth and I read through the time stamps that identified when each teacher had posted a comment onto the school Twitter account. These time stamps indicated that teacher activity on the school branded account happened during lunchtime, or outside the school day. Two of the posts were shared during the night at 3.28am and 4:15am.

As a school leader, Beth was shocked by the timestamps and the implication that this night time usage could be due to an absence of clearly defined expectations or lack of allocated time within the school day. She recognises that "*it's not something we've explored as a school*" and that this lack of clarity has resulted in her views on teacher workload being at odds with the message that is being communicated to the rest of the staff.

Mark and Kara: "*knowing when to stop*"

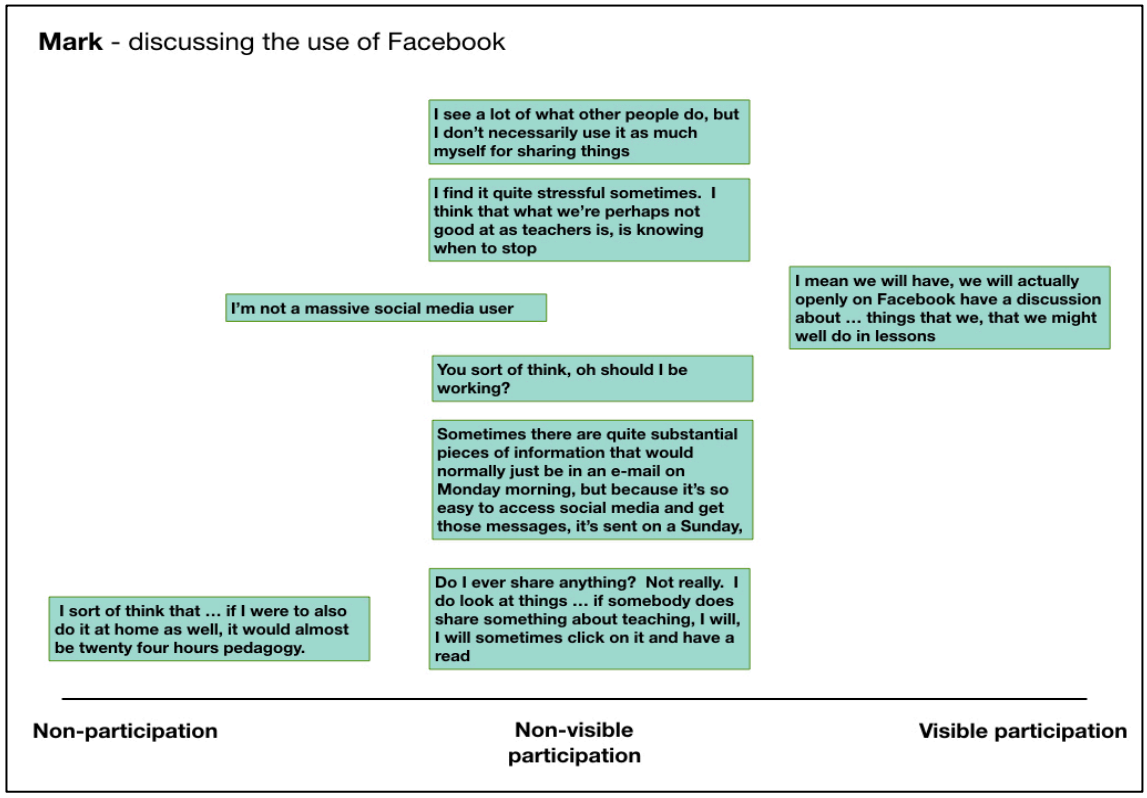


Figure 26: Mark

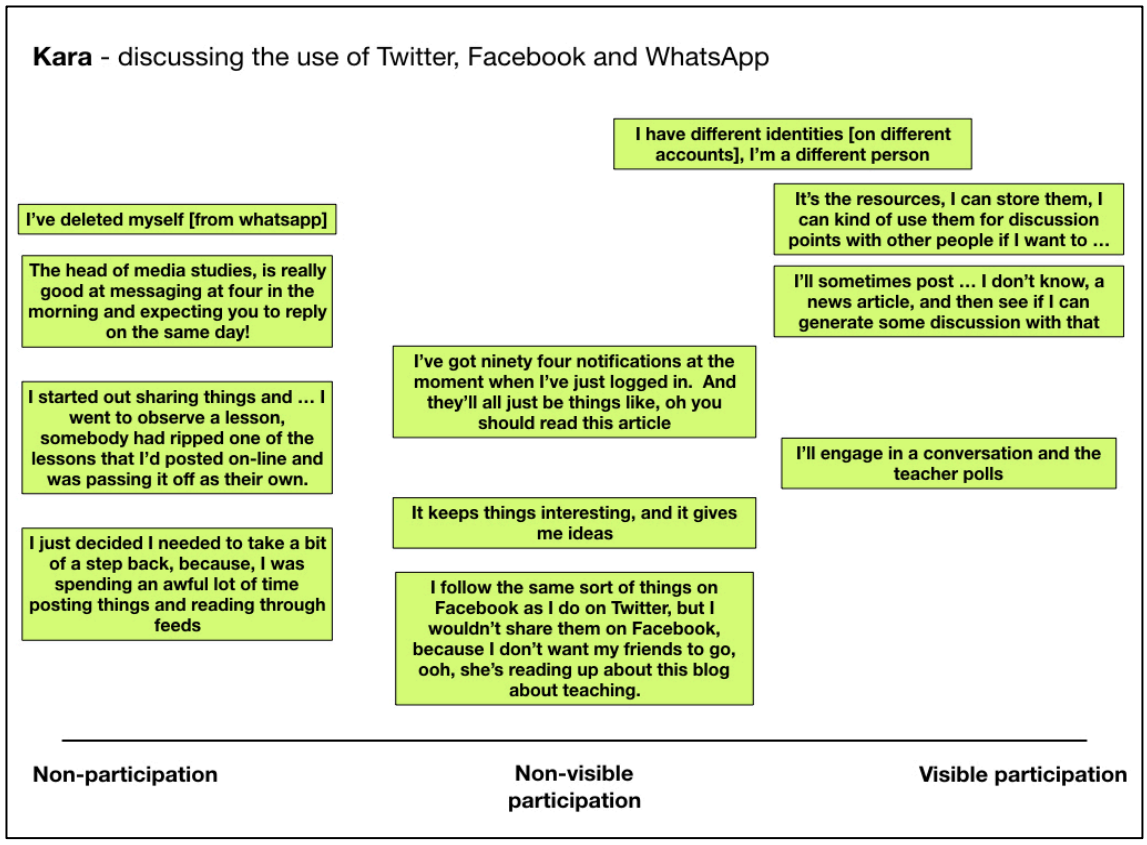


Figure 27: Kara

Mark and Kara work in the same department and chose to be interviewed together. They discuss their use of social media for professional purposes as being an extension of the conversations that they have in the department office: "*we will actually openly on Facebook have a discussion about … things that … we might well do in lessons*" (Mark). Whilst the department do not have a designated Facebook group for these discussions, the teachers are friends on Facebook, so the conversations that are held face to face in school migrate to personal social media accounts once they have gone home:

> "*[The Head of Department] shared something about … [the] delivery of a speech in Coriolanus. And then the comments underneath turned into us talking about whether we could use it in our lessons*" *(Mark)*

This use of social media makes the teachers' working process very visible and whilst Kara likes to participate, she is aware that the audience on her Facebook account is not comprised entirely of teachers. Kara segments her social media use, "*I have different identities, [on different accounts], I am a different person*", and therefore is careful to manage her privacy settings so that she can control who sees her more professional contributions:

> *"It would look really, really kind of geeky and nerdy if I'm sitting there posting all these educational things, so I'll change the privacy settings on them, so that they are just only on Facebook, only I can see that I've posted it and then it's visible to me, but nobody else can see it*." *(Kara)*

Mark and Kara have also found that the use of social media has blurred the boundaries between their work and personal lives: "*because social media exists, you almost can't detach from work sometimes*" (Mark). Mark admits that he feels guilty when he sees other teachers posting about work on Saturday morning and finds that the use of social media means that work encroaches into his weekend: "*on Sunday it's perfectly fair game to start messaging and telling about what we all need to do … on Whatsapp and stuff like that*."

Both Mark and Kara state that they find this situation stressful. When working in a different department within the school, Kara found that her Head of Department would message her during the night: "*she is really good at messaging at four in the morning and expecting you to reply on the same day*". In order to manage this situation, Kara turned her notifications off, and then removed herself from Whatsapp entirely: "*I've deleted myself*". This does mean, however, that she is now out of the loop: "*I miss [the] messages that are going backwards and forwards, and because I'm not picking those messages up, I'm like what, what is going on?!"*

Both Mark and Kara view the depth of their department discussions as a strength and a source of professional development:

> *"I think we talk an awful lot about pedagogy, curriculum … developments in the field … and actually we're trying really hard I think to keep abreast of all the changes that happen." (Kara)*

These conversations are woven into the school day, "*every break time and lunchtime and after school, our discussions are pedagogical*", and now, through the use of social media they extend beyond the school day into evenings and weekends. Mark and Kara are mindful that social media can provide a valuable platform for discussion and sharing ideas but also see the potential consequences of making their work-life boundaries more porous: they fear that their work will become "*all-consuming and never-ending", "if I were to do it at home as well, it would almost be twenty four hours pedagogy."* (Mark).

7.1.4 Access to Support In-Person

Many of the participants in the interviews (nine in total) voiced a preference for conversation in person as opposed to discussion on social media platforms. Two of these participants, Sophie and Kathy, have already discussed how inhibiting factors such as the impact on work-life balance, and fears of judgement, limit their participation in discussion online. Here, other participants, specifically Mary, Tamsin, and Dawn, raise their issues around work-life balance when including social media as a professional development tool, and discuss how the availability of CPD within their workplaces has led to a lack of use of social media because their professional development needs had already been met.

Mary: "we've got each other as social beings"

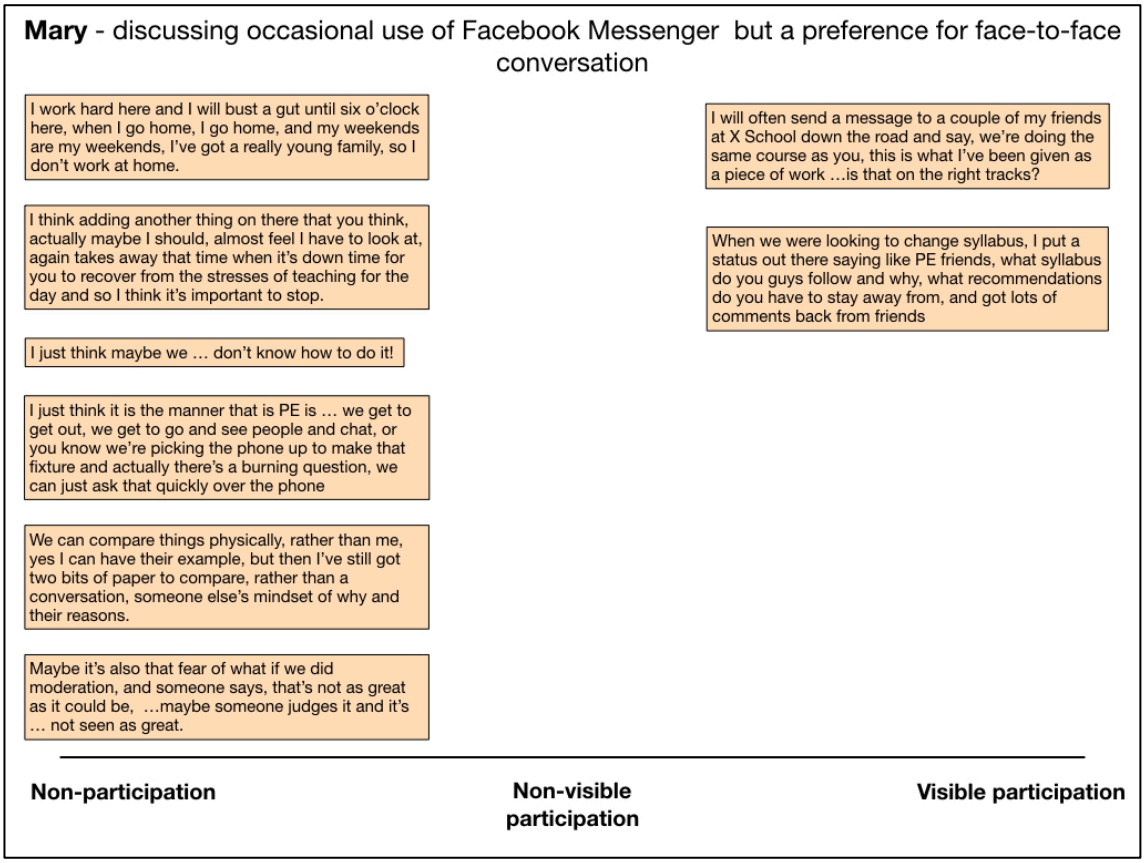


Figure 28: Mary

Mary is a PE teacher and sometimes uses Facebook to contact other local colleagues: "*the setting that is PE, we're quite social beings and see each other a lot, so we all have added each other on Facebook and such, just from a social side*." Mary sees the potential for the use of Facebook for professional discussion, or for seeking advice and guidance, "*we'll come together and cross-*

reference our problems and solutions possibly in that kind of platform", but finds that she and her colleagues prefer a more direct form of communication than Facebooks groups. Instead, Mary contacts local teachers directly through Facebook Messenger for support:

> "*I will often send a message to a couple of my friends at [name of school] down the road and say, we're doing the same course as you, this is what I've been given as a piece of work, … is that on the right tracks? Because it's a new syllabus, we're all kind of learning, so we can bounce ideas off in that respect*." *(Mary)*

Mary is using Messenger here for moderation, to validate her judgements in the same way that other participants such as Ben, Karen, and Ursula use Facebook groups; however, Mary prefers to reach out to other teachers directly as individuals. She uses a range of different means of communication, "*informal e-mail conversations, meeting at fixtures, our Federation things*" and sees the use of Messenger as one option among many points of contact that she has with other teachers such as Federation professional development meetings and sports fixtures.

Mary prefers not to use Facebook for professional purposes because she would rather share information with "*friends rather than … random people"*. She also avoids social media use at home because, like Mark and Kara, she sees the potential for losing separation between her work and home life:

> *"I quite like to have that cut-off that I'm a teacher in these, in this building, and a mum when I go home." (Mary)*

Ironically, Mary considers that main reason that she doesn't use social media for professional discussion is because her subject area is so social: "*I just think it is the manner that is PE … we get to get out, … it's social."* Mary is able to have her 'water-cooler moments' (Waring & Bishop, 2010: 325) of informal discussion at the sidelines of the sports fixtures that she and other local PE teachers attend. These opportunities for spontaneous conversation allow the teachers to ask questions and seek advice and also foster relationships that enable colleagues to reach out directly to each other via email, Messenger or phone conversations when they get stuck. This is a preference that Beth also voiced in her interview. The multi-academy chain that Beth's school belongs to provides opportunities for teachers form different member schools to meet in subject specific groups. Beth meets with these teachers once a term and states that she "*would probably go through that group*" before she turned to social media for support: "*I just think seeing someone face to face and a person that you know … is easier*".

However, whilst Beth maintains her social media use, for Mary, her ready access to a support network of local colleagues inhibits her online participation and makes it redundant. From Mary's perspective, the drawbacks of participating online outside of school hours – the use of time, the invasion of personal boundaries – now outweigh the benefits because her professional development needs are fulfilled through discussion elsewhere.

Tamsin: "my development needs are met in school"

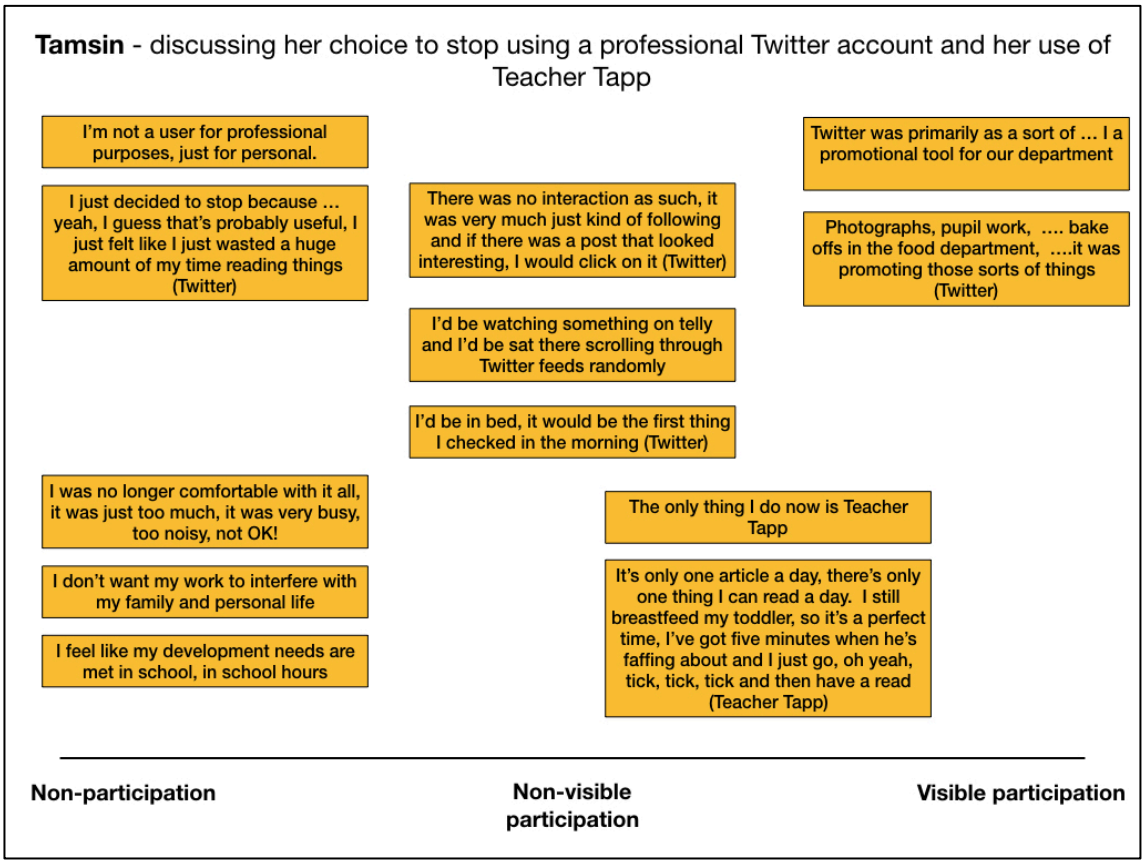


Figure 29: Tamsin

As a technology teacher, Tamsin self-identifies as an "*early adopter*" of new technology and initiatives, and was initially keen to use Twitter as a "*promotional tool*" for her department. Her school had suffered from a "*poor reputation*" previously, and she saw Twitter as a way of "*raising awareness*" of the work that she and her colleagues were doing and how that had led to the school becoming a "*changed place*".

However, Tamsin found that her use of social media was not "*impactful*" and did not deliver the professional development benefits that she had hoped for: "*I just felt like I just wasted a huge amount of my time reading things".* She used social media to follow Instagram and Twitter feeds on a range of interests, "*crafting …DIY …gardening …photography …art …architecture …technology … 3D printing*", and found the resultant load of information overwhelming:

> *"I'd be in bed, it would be the first thing I checked in the morning, … and like I had a conversation with my husband, I was like, I really need to stop doing this, this is really, this is not sociable, this is not acceptable, this is not OK" (Tamsin)*

Despite having a Headteacher who uses Twitter, Tamsin does not feel that social media use is a professional expectation, so she "*just decided to stop*". Now she uses Facebook for personal reasons, as "*a way of keeping in touch*" with friends and family, but states that she no longer uses social media for professional purposes. She feels instead that "*my development needs are met in school, in school hours*". Tamsin considers professional development to be a "*massive priority*" for her school. Each week teachers are allocated an hour for "*research and development*" and Tamsin is the leader within her own collaborative working group:

> *"We meet with other colleagues in other departments, and we research an idea and we try it out in lessons and then we observe each other and feed back."*

Tamsin's school are also working with the Teacher Development Trust and have been working with an external expert to "*get ourselves accredited as gold*". They have "*bought into IRIS*" so that "*we can film ourselves*" and "*have live coaching in school*". The professional development initiatives that Tamsin reports her school have put into place seem to match many of the DfE's (2016a: 1) standards for good practice in collaborative CPD: they involve "collaboration" between teachers, include "expert challenge", and are "sustained programmes over time". Due to the wealth of collaborative opportunities that her school provides, Tamsin states that "*I never feel that I have to do anything outside of school for my professional development*".

Yet, Tamsin has not quite made a clean break. She states that she is determined that she doesn't "*want my work to interfere with my family and personal life*" and has taken access to work emails off her phone. However, she still maintains a connection with social media by using the polls on Teacher Tapp (see Figure 31 below). This is an app that sends through a multiple-choice question on a current issue at half past three every day, and rewards users by providing access to a blog post about educational issues once the poll has been completed. This is the one notification that Tamsin allows on her phone, "*it's only one article a day",* and she has carved out time within her personal life to accommodate it:

> *"I still breastfeed my toddler, so it's a perfect time, I've got five minutes when he's faffing about and I just go, oh yeah, tick, tick, tick and then have a read, like it's a perfect little slot that is like a little slot of time that I … I do use it for professional development because I'm not going to do anything else with it!"*

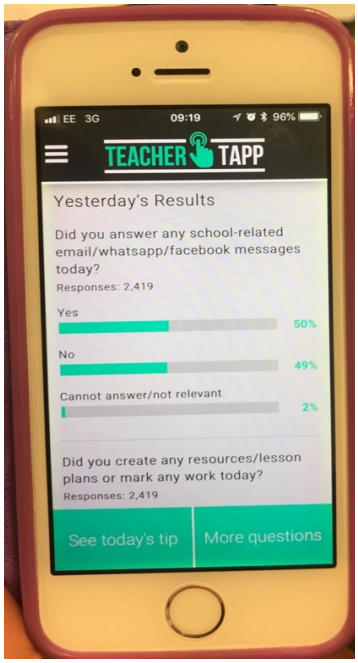


Figure 30: Teacher Tapp

Dawn: "I would much rather have that relationship on a one to one in real life"

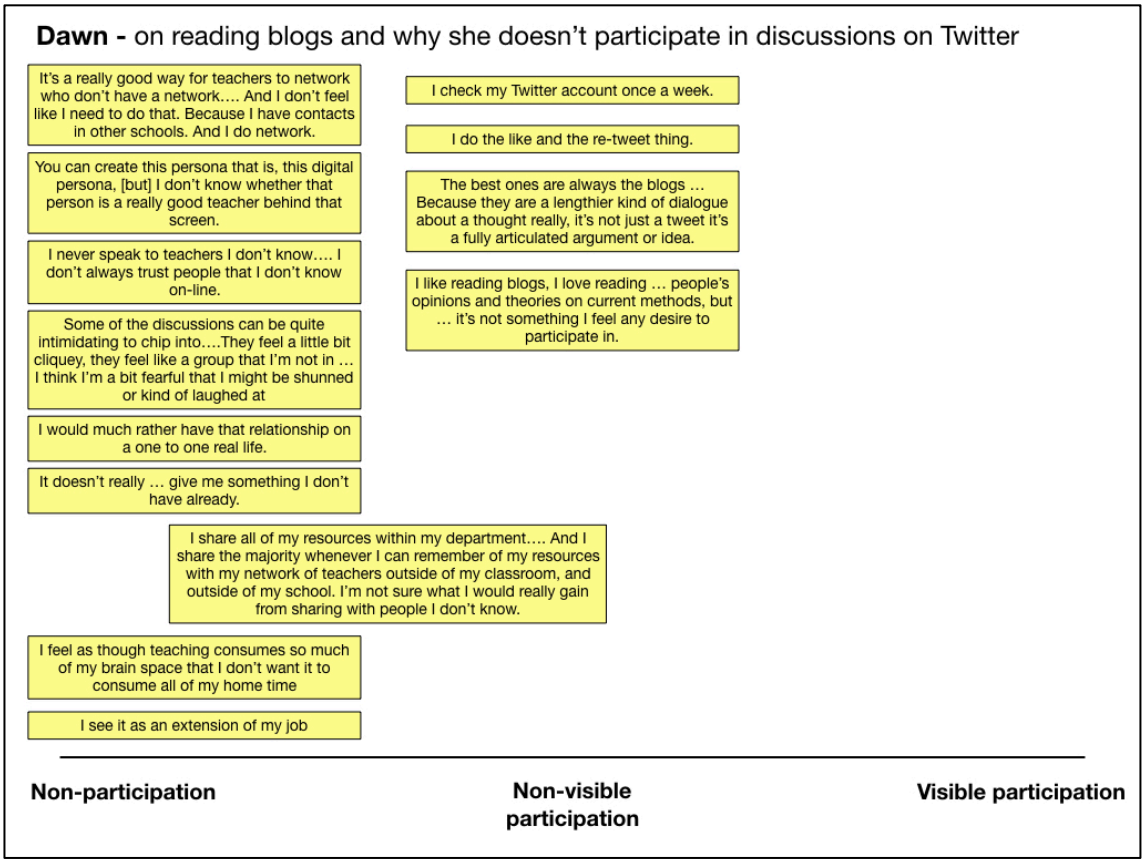


Figure 31: Dawn

Dawn is an experienced teacher who is involved in training new teachers for the chain of schools that she works for. She sees the potential of Twitter as a source of "*current ideas and theories*" and uses it to "*complement things that I buy", "so if I buy books on Amazon, I will then search for [the author] on Twitter".* Dawn likes to read, and particularly enjoys blogs because they are an "*entertaining read"* and also because they are "*a lengthier kind of dialogue about a thought … it's not just a tweet, it's a … fully articulated argument or idea."*

Dawn also sees the value of Twitter as "*a really good way for teachers to network who don't have a network".* She recognises that *"it's an avenue for them to contact other teachers in other schools"* and to *"share resources".* However, Dawn does not feel the need to do this herself. This is partly because she dislikes the nature of the discussion groups on Twitter "*they can be quite intimidating to chip into … they feel a little bit cliquey, they feel like a group that I'm not in",* and she fears that she "*might be shunned or kind of laughed at".* She is also "*a little bit cynical*" about who she is communicating with online, and doubts whether the "*digital persona*" is always the "*really credible head of department, they can say they are".*

Dawn also chooses not to participate because "*it doesn't really give me something I don't have already".* Dawn has developed a network of other teachers amongst her peers and friendship groups and would "*much rather have that relationship on a one to one in real life".* She shares all of her resources with her department and also with her "*network of teachers outside of my classroom, and outside of my school".* It is unclear to her what she would gain from sharing with people that she doesn't know. She states that "*I don't always trust people that I don't know on-line"* and *"doesn't need any validation from anyone".* She is uninterested in their resources because she finds them outdated, "*things that I've seen years ago",* and because she likes making her own.

Dawn uses social media in her personal life and is wary that it has the potential to *"consume all of my home time".* She sees use of social media for professional purposes as "*an extension of my job*", and whilst she likes reading blogs and accessing "*people's opinions and theories on current methods",* it is not something she feels *"any desire to participate in*".

Mary, Tamsin and Dawn all share the perspective that the collaborative networks that they have established "*one to one in real life*" *(Dawn)* are adequate for their professional development needs, and preferable to the kinds of support and discussion that they could access online. Whether it is meeting other teachers at the sidelines of games, in research and development time in school, or within existing friendship groups, the face-to-face networks that these teachers have established seem to demand less from their home and personal life than social media. All three of these teachers have young families and spoke of needing to maintain boundaries between home and school. Their face-to-face networks were more likely to happen in the school day, within school hours. When Tamsin and Dawn did reach for social media, it was to read blog posts or, as Dawn puts it, more "*fully articulated"* arguments or ideas. Overall, these teachers were keen to learn, but felt that social media added unwanted complexity to the separation of work and home, and compared to the face-to-face support that they could access elsewhere, it provides little additional benefit.

7.1.5 Non-Participation on Social Media

In the questionnaire data, 46.6% of respondents stated that they choose not to use social media for professional purposes. 37% use it for personal purposes only; 9.6% choose not to use social media at all. The reasons given in the questionnaire were concerns over privacy, lack of time, dislike of social media and a feeling that it was neither beneficial or useful. In this section, three interviewees who have chosen not to use social media for professional purposes add their voices to this data to explore these issues further. Similarly to the questionnaire data, these are teachers who have deliberately opted out of using social media because they are concerned about the impact on their work-life balance, feel the need to maintain their privacy, and simply do not perceive the relevance or benefits of social media to their already busy lives. Interviewees Tom, Gwen and Bruce voice these perspectives.

Tom: "I don't have any digital footprint"

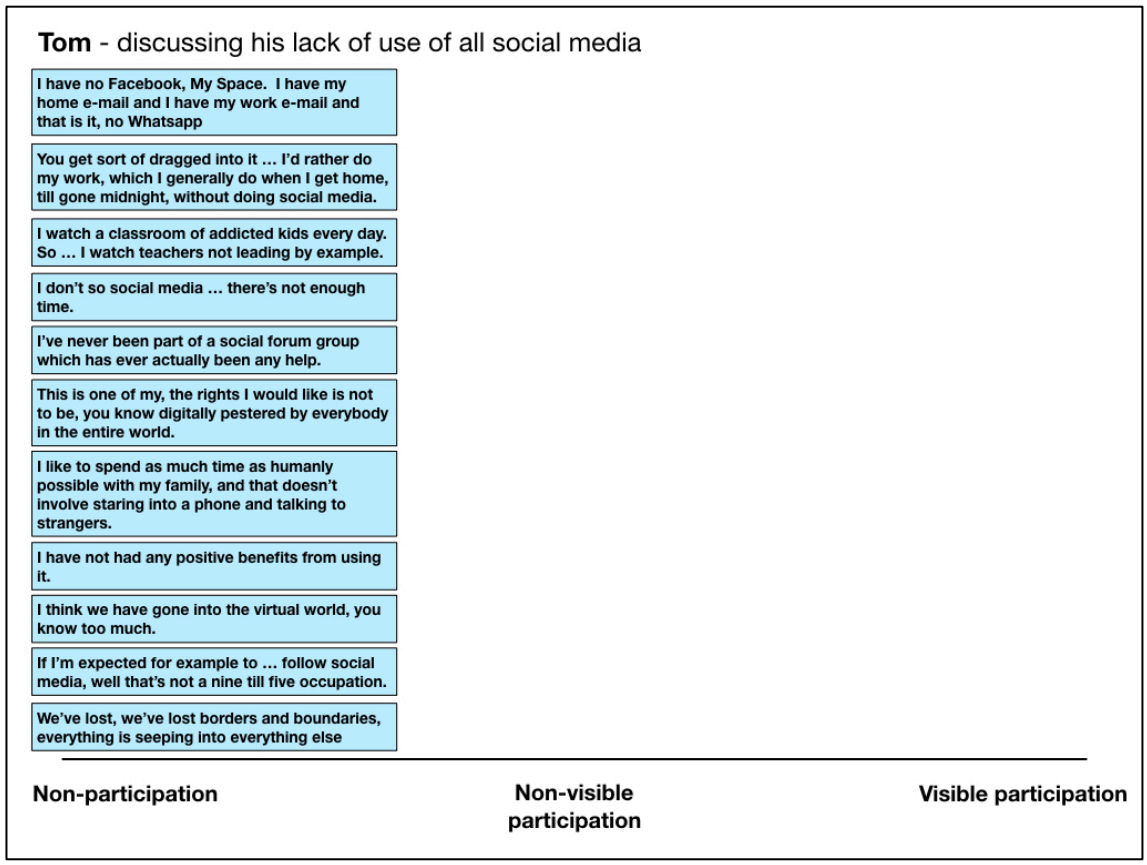


Figure 32: Tom

Tom is a technology teacher and an expert in IT. He formerly worked in the corporate sector but has recently chosen to become a teacher. He is happy to collaborate and share work with his

colleagues at school through the use of Google Drives and Google Classroom but is not a user of social media: "*I have no Facebook, My Space. I have my home e-mail and I have my work e-mail and that is it*".

Previously, Tom did use social media, "*I was on Facebook and My Space and LinkedIn and all that sort of rubbish at the start"*, but then chose to give it up: "*I looked out and thought, who am I doing this for? I don't have a façade to present*". He joined WhatsApp groups at university, and on his teacher training course, but found these unhelpful: "*you just get tied up in people's emotional crap*".

One of the reasons that Tom has opted out is because he feels strongly about the negative consequences of social media and smart phone use:

> "*We are ruining our kids at a young age, by putting them in front of screens …I take phones off kids in lessons and they physically shake in the classroom, because they are so addicted"*

He thinks that teachers are not "*leading by example*" by modelling appropriate use of technology, reporting that in his school "*teachers walk up and down stairs using mobile phones*". Tom sees himself as a lover of technology, an "*avid nerd and geek*", but for the "*right reasons*". He doesn't understand "*other people's addiction to it and their desire to do it, and why they can't walk away from it*". He has strict routines in place at home to regulate the use of technology, "*we have no tech at the table, no tech upstairs at home", "my phone goes off at ten o'clock at night, comes on at six o'clock in the morning".* This helps him to achieve a separation between his work and home life, "*It's just work, yeah, I go to the office to do it …and then I close the door and then I go and be with my family".*

Tom also avoids using social media technology because he feels that he needs to defend his privacy. He states that he has no *"digital footprint*" and sees it as one of his rights not to be "*digitally pestered by everybody in the entire world*". Tom has a son who is adopted, and insists that "*he has no digital footprint, because he's a child under care*". As a father, Tom wants to preserve an "*old-fashioned family life*" one in which "*we don't get tech out in front of him*", and "*spend family time*" together instead.

Gwen: "I don't really know what it can offer me"

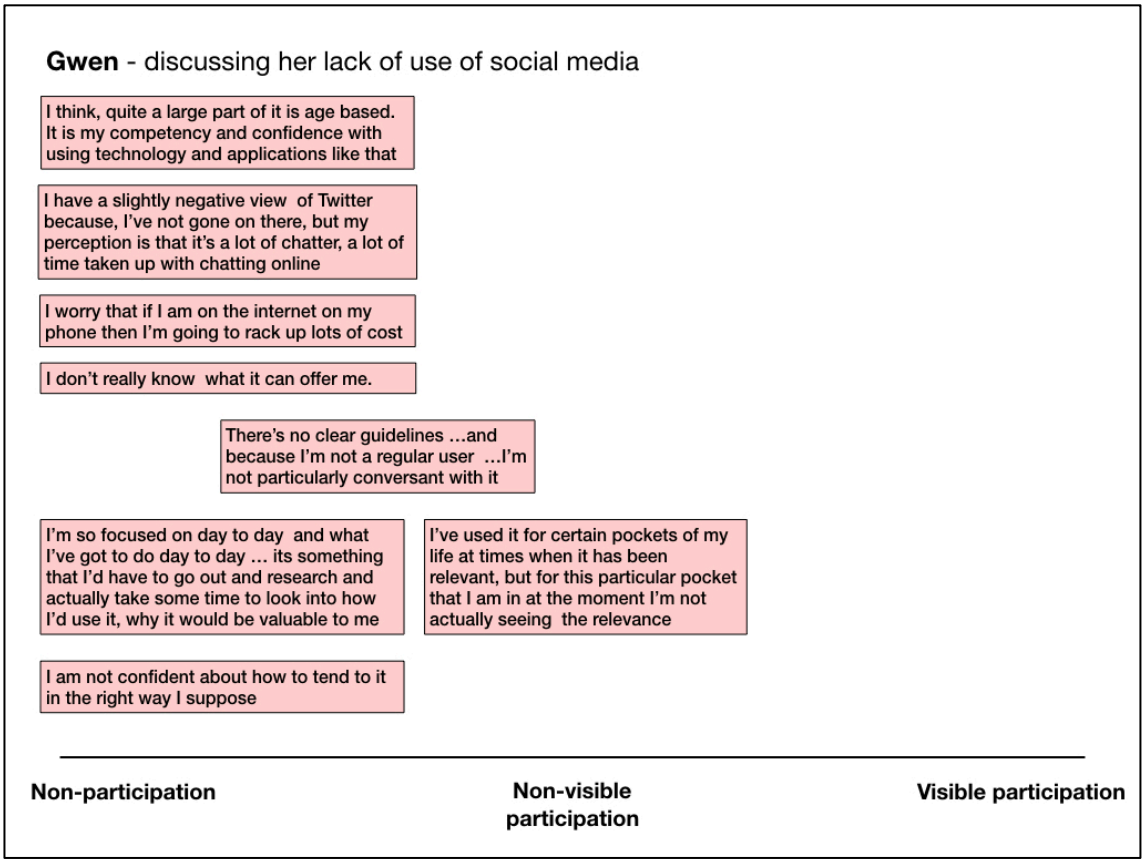


Figure 33: Gwen

Like Tom, Gwen is a late career entrant to teaching. She also previously worked in the corporate IT sector and only recently chose to become a teacher. Whilst Gwen is open to the possibility of using social media for personal purposes, she does not see herself as "*like a lot of my friends who still work in industry"* because *"I don't use it as much as they do".*

Gwen has "*specific reasons*" why she has "*a bit of a problem*" with using social media. One is cost, "*I worry that if I am on the internet on my phone then I'm going to rack up lots of cost",* another is competency, "*I think, quite a large part of it is age based. It is my competency and confidence with using technology".* The issue of competency is interesting, because in her previous career Gwen reports being technologically adept:

> *"My role was an IT exec so selling products over the phone. So we did use the internet quite a lot, but for very specific things, and we would use email. And I'd be multi-tasking and be talking on the phone and using that as well ...we used online conferencing and that sort of thing which I actually really liked."*

However, now Gwen feels deskilled. She states that she doesn't know *"what it can offer"* and feels "*a little bit uncomfortable*" at the prospect of using social media. The problem is that not that she is necessarily adverse to using it, but that "*there's no clear guidelines"*. She has a "*slightly negative view*" of Twitter, perceiving it to be "*a lot of chatter, a lot of time taken up with chatting online*" and, as such, does not see the relevance to her professional life. She is willing to be shown how to "*tend to it in the right way*" and states that if "*I had some reasoning as to why it would valuable and beneficial then I would probably be quite happy to do it*". However, currently Gwen lacks this guidance, and is so "*focused on day to day and what I've got to do day to day"* that she is reluctant to take the time to look into how social media could be professionally relevant to her.

Bruce: "I've got my head in the sand a bit"

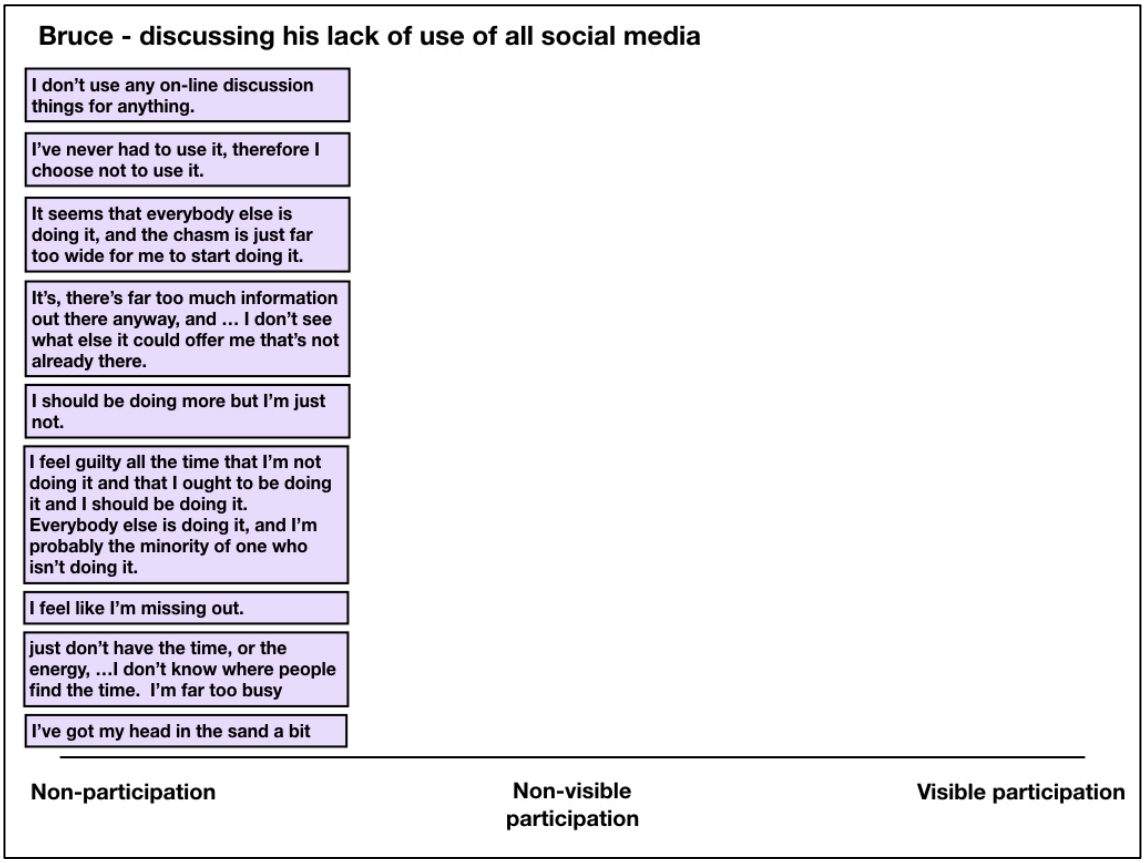


Figure 34: Bruce

Bruce is an experienced teacher who, like Dawn, is a professional mentor at his school and is responsible for the professional development of trainee and newly qualified teachers. He thinks that "*professional people should take responsibility for their own professional development to a certain extent*" but does not turn to social media to fulfil his own professional development needs: "*I don't use any on-line discussion things for anything".* Instead, he turns to "*the internet... TED talks…books…journals … to inspire me and to find out more about stuff".*

This is mainly because he has "*never seen the need"* to use social media*,* he has "*never been on Facebook", "never been on Twitter"* and, similarly to Gwen, because of this lack of use does not see the relevance of social media to his personal or professional life: "*I don't see what else it could offer me that's not already there".*

However, Bruce also perceives that he might be missing out. He feels "*old-fashioned*" and that he "*ought to be doing it"* and *"should be doing it".* He perceives that he is "*probably the minority of one who isn't doing it"* and this leads him to feel "*guilty all the time*" particularly because in his role as professional mentor, he is talking to others about professional development. Yet Bruce is

also unwilling to change. He sees himself as stuck, "*I've got my head in the sand a bit"* and perceives a "*chasm*" between his own use of social media and that of other teachers: "*it seems that everybody else is doing it, and the chasm is just far too wide for me to start doing it".* Bruce states that he no longer has "*the time, or the energy … to constantly be going on Twitter or Facebook"*. He is "*far too busy".* For Bruce, as for Gwen, the day to day of teaching is already *"far too much"* and requires all of his focus. This means that social media is an added, unwanted extra and he is *"reluctant to jump that chasm at the moment".*

All three of the teachers who have spoken in this section have focused on the potential that social media has for overwhelming their professional or personal lives. It is interesting that these teachers are all in their 40s or 50s, and therefore social media has been introduced into the technological landscape later in their careers. The link between age and use of social media is not fully explored in this thesis and is any area that could benefit from further questioning. However, these are not individuals who lack technological expertise: two of them had careers in IT before becoming teachers. Instead, what these three interviewees share is an awareness of the negative consequences of using social media: the potential invasion of privacy, division of focus, or loss of time. This leads them to avoid the use of social media because they are wary that the risks outweigh the benefits, or because they lack the guidance needed to see the relevance that it could have for their professional practice.

7.2 Factors that motivate teacher participation

7.2.1 Resources

The most popular reason for participation on social media spaces that emerged from both the questionnaire and interview data is access to shared resources. 94% of respondents to the questionnaire and all of the interviewees who use social media confirmed that they have used social media to download resources to support their teaching practice. As such, the sharing of resources is a form of participation that is mentioned in most of the interviews documented in this chapter. The sharing of resources is also a commonly identified factor in the literature (e.g. Littleton & Whitelock, 2005; Holmes et al, 2013; Goodyear et al. 2014) but the reasons why teachers are turning to social media spaces for teaching resources have not been explored. Often the sharing and seeking of resources is presented as altruistic or "civic-minded" (Forte, Humphreys & Park, 2012: 110), but this form of participation can also be motivated by isolation and lack of support. The provision of resources for others can also have unintended consequences for teacher workload. Interviewees Natalie, Tamara, and Gillian explore these issues further in this section.

Natalie: "it's like reinventing the wheel, someone's already done it for you"

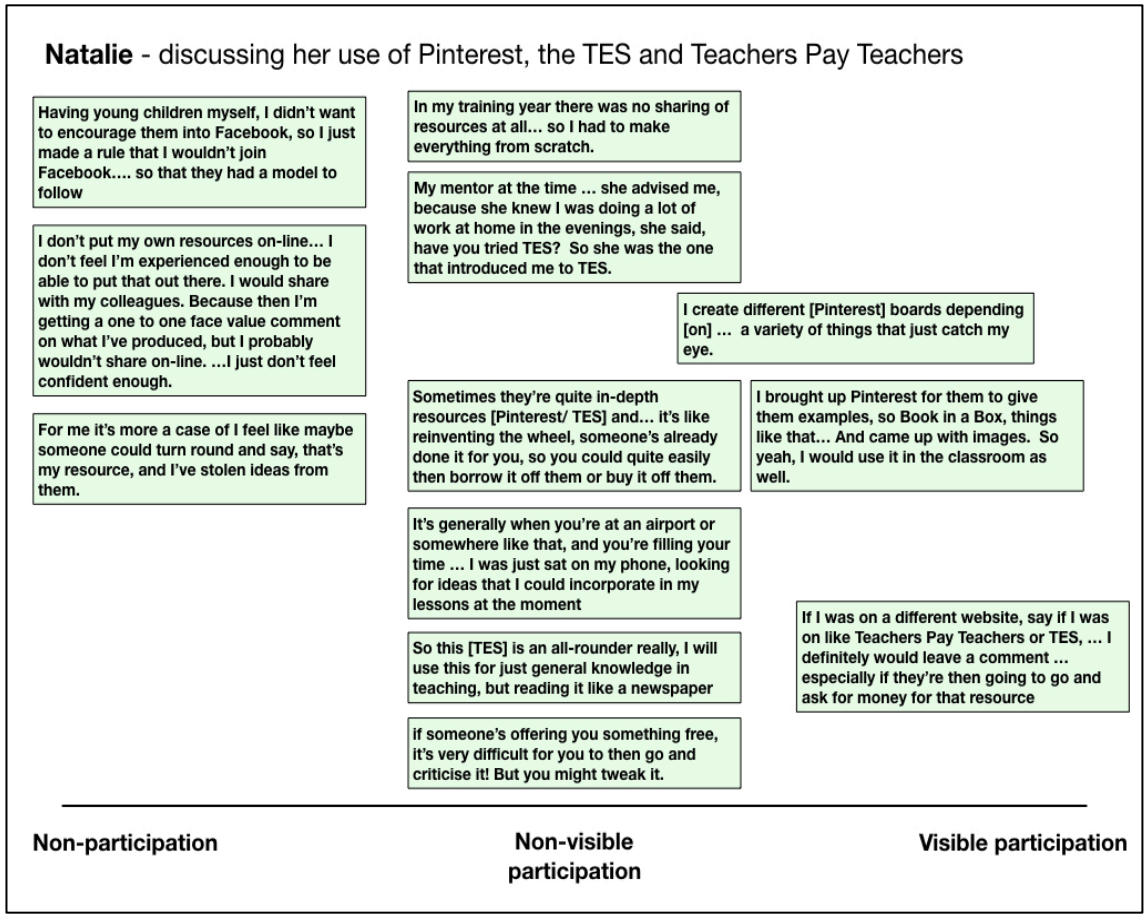


Figure 35: Natalie

Natalie is a newly qualified teacher and uses online spaces, specifically Pinterest, the TES, and Teachers Pay Teachers, to find inspiration for her lessons. She describes her participation as a form of curation motivated by need:

> *"So if I was struggling with … maybe doing some creative poetry for example, I would just go up here and I would just type in creative poetry ideas… and as a result of it, I found out about creating blackout poetry." (Natalie)*

Natalie describes the creation of resources as a standard expectation of a teacher's workload, and as a source of struggle that she was unprepared for in her training year.

> *"I was really struggling for resources and I didn't have the time to make the comic strips or just simple things like a glossary of terms …I had glossaries of terms, but mine were from my degree and that was too difficult for them, they wouldn't have been able to use those, so it was a case of, can I find a simpler version?" (Natalie)*

The solution that was offered to her by her mentor and Head of Department, was to access the TES forums and resource banks. Natalie perceives the use of these spaces as analogous to the peer learning and support that happens within schools and departments, "*we learn from other teachers … everything we do is influenced by others*", and as a pragmatic, common sense solution to the problem, "*it's like reinventing the wheel, someone's already done it for you*".

The question that is raised here is why Natalie feels the need to individually source her own resources. She works in a department of experienced teachers and teaches a core subject. It may be partly that, like Susan, she sees the process of making or adapting resources so that they are bespoke to the needs of her class as key to her professional integrity:

> "*You will gain inspiration from ideas and then you may tweak it anyway, you wouldn't keep it the same, you will always interpret it best to suit your needs and your pupils" (Natalie)*

Yet Natalie also admits that she lacked support in her training year from the other teachers in the department that she worked in. She states that she *''had to make everything, there was no resources''* and that this situation was being replicated across the department: "*everybody was making their own resources for the scheme of work and they weren't being shared, teacher to teacher".* In this situation the use of social media platforms to source resources is a response to a deficit model: participation in the social media space is necessary because it is operating as a replacement for the supportive interactions and shared professional practice within a school department.

Natalie does not share her own resources online, feeling, like Susan and Mary, that her lack of experience means that her contributions lack value. She is also reluctant to comment on the quality of resources that have been made available: "*if someone's offering you something free, it's very difficult for you to then go and criticise it!"* Natalie implies here that sharing resources is an altruistic gesture which places her in in the role of grateful recipient: it is rude to criticise if someone has given you a gift. Although, when she is paying for resources she feels more empowered to comment due to her position as a consumer: "*if they're then going to go and ask for money for that resource, you want to make sure that everything's there.*"

Just as Natalie tacitly understands the creation of resources as a teacher's individual responsibility, so too she understands that payment for these resources is something that teachers shoulder alone. *"It's just not something, it's probably my own fault, I've never even thought of saying, would you be prepared to pay for this?"* Natalie perceives her need for resources as a personal problem "*I had a very difficult year 11 class and I had to find ingenious*

ways of being creative and getting them to learn" and, as such, was happy to pay for the solution, "*for me, it was worth the £5*". Natalie frames her struggles as a new teacher through a narrative of personal need and uses social media to find bespoke solutions to the problems she experiences. This seems to have been a successful approach, however, this is also a description of teacher training by proxy, as Natalie seems to have turned to social media spaces to find the resources and support that her school has neglected to provide.

Tamara: "I might get something visual for the children"

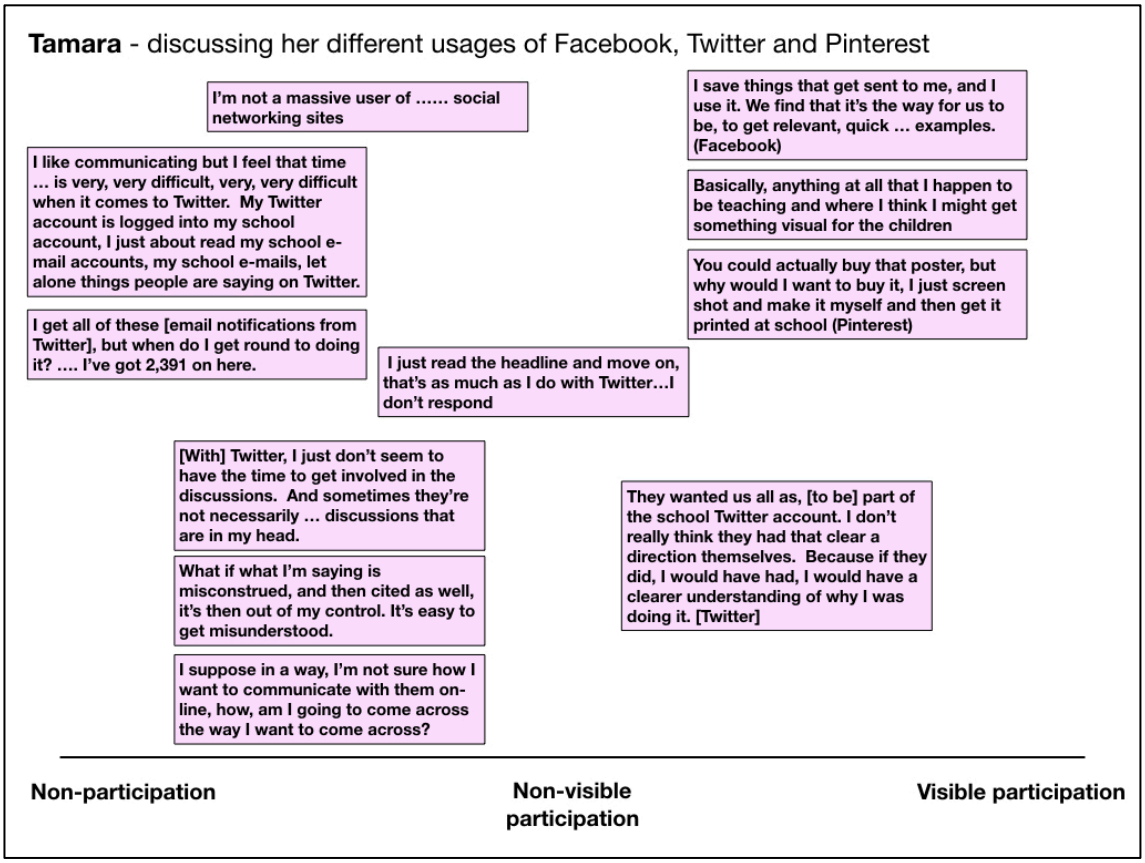


Figure 36: Tamara

Tamara is an English teacher and uses Pinterest for inspiration. She uses it personally, to curate "*different boards*" for her different interests: "*one for veganism, one for tattoos, … one called Teacher Teacher".* She also uses Pinterest for "*anything at all that I happen to be teaching"* to *"get something visual for the children".* These resources include "*Jane Eyre quotes for the GCSE",* images to create *"a quick way in, a quick revision guide",* and images that function as "*a really stimulating picture"* to inspire creative writing.

Tamara has a large number of resources stored on her account "*about 8,000, 9,000 pins"*, and shares those relevant to the pupils by displaying her Pinterest account in class. She also produces some of the images as posters to display in her classroom. Like Natalie, she discovered the resources available from Teachers Pay Teachers, but she takes a different position on the self-funding of resourcing: "*whilst I fully advocate teachers being paid, I don't advocate them spending their own money on resources".* She asks "*why would I want to buy it*?"; "*I just screen shot and make it myself and then get it printed at school".* Tamara also uses Facebook in a similar way. She

searches for useful videos and graphics and displays them in class "*all the time*". Although she thinks that Facebook is not "*as good as Pinterest, in terms of actual teaching resources".*

Tamara's use of Pinterest is similar to Natalie's and also to Neeve's. All three of these teachers go to Pinterest to curate the resources that they need and then share these with pupils through digital display or as paper copies. Neeve also shares her department's Pinterest account name with pupils and encourages them to "*go onto it*" and follow the range of different boards to which the teachers in the department contribute.

When sharing the resources she finds with other staff, Tamara adopts a polymediated approach. She saves the resource online, sends a link to her colleagues by email and then notifies them that they have an email using WhatsApp. In this way she states that "*the social media is being used as a secondary source",* meaning that it is functioning as a form of storage for shared ideas and inspiration.

It is interesting to note that Tamara sees the value of the resources on Pinterest and Facebook, and is willing to invest time and effort in sharing these, but does not see the value of Twitter. She was directed to use Twitter by her school "*a good six or seven years*" ago but felt that the school lacked "*a clear direction*" for how they wanted staff to use the platform.

> *"I don't really think they had that clear a direction themselves. Because if they did, I would have had, I would have a clearer understanding of why I was doing it… I might have also felt more inspired to use it." (Tamara)*

Tamara feels that "*time … is very, very difficult when it comes to Twitter".* She uses her school email to log into Twitter and consequently receives notifications directly to her email inbox. At the time of the interview she had 2,391 notifications. Although Tamara knows that she could switch these notifications off, she is reluctant to do so "*because I think one day I might get round to reading it*". Tamara is approaching the Twitter updates in the same way that she stores sources of shared inspiration on Pinterest. However, when applied to her emails it is far less successful. In order to cope with the volume of notifications, Tamara has turned to a colleague to support her in managing the workload:

> *"I've asked everybody to copy my second in department in. And she filters, and she says to me, this one's important, that one …And I usually get the heads up." (Tamara)*

Gillian: "I don't like … people take, take, taking"

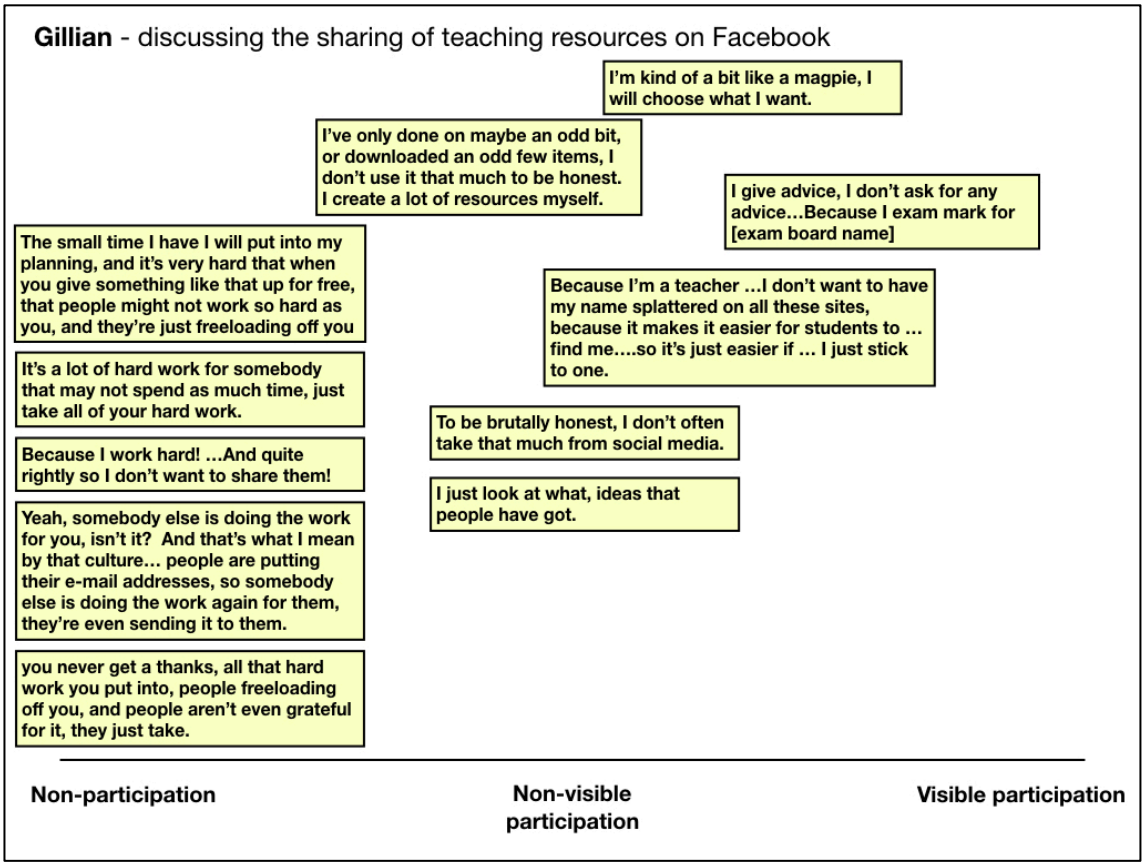


Figure 37: Gillian

As an experienced computer science teacher and exam marker, Gillian is an expert in her subject area. She uses Facebook computer science groups "*just to be updated more than anything and just … I'm kind of a bit like a magpie, I will choose what I want."* She is selective in the resources she chooses to download stating that she doesn't "*often take that much from social media*" preferring just to look at "*ideas that people have got*" and then create resources for herself.

Gillian does not share the resources that she makes with others online stating that "*I don't use it as a platform to share my work*". This is not because she fears judgement, she is happy to give advice and share the expertise that she gains as an exam marker. Gillian chooses not to share her resources because she resents that other people will take advantage of the time and effort that she has put into her work:

> *"The small time I have I will put into my planning, and it's very hard that when you give something like that up for free, that people might not work so hard as you, and they're just freeloading off of you." (Gillian)*

Whilst Gillian is happy to share with her department, and understands the tacit principles of "*give and take*" that operate within social media spaces online, she perceives the other teachers online as "*strangers*" who will not appreciate her hard work: "*no one said, what a really useful resource, thank you, this really helped in my lesson. No one ever does that*."

She also describes the process of sharing her work as potentially involving significant additional labour:

> *"One person will put … I've made this, does anybody want it, and then people [say] can you e-mail it to me, can you e-mail it to me? You should see it. And I just think, oh God, no I'd hate, I'd hate it if that happened, I'd have to e-mail about sixty different people." (Gillian)*

During the interview, Gillian identified a recent example on the Facebook group she uses of a pre-service teacher who had shared a "*python scheme of work*" and received 300 responses from other teachers asking asking her to e-mail the resource to them (see examples of these responses in the screenshot illustrated in Figure 38).

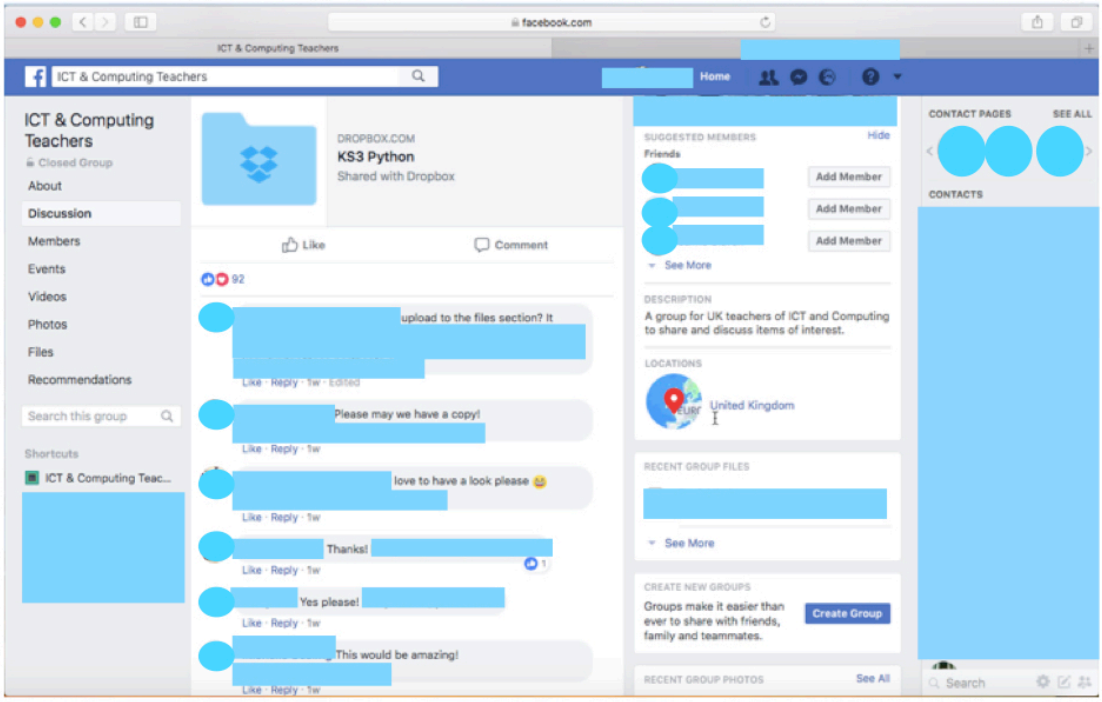


Figure 38: Python Scheme of Work

Although resources do not have to be shared in this way, and the pre-service teacher in question later chose to use Dropbox to host the files so that it wasn't necessary to email other teachers

individually, Gillian sees this situation as symptomatic of a wider culture online that she does not want to participate in:

> *"Somebody else is doing the work for you, isn't it? And that's what I mean by that culture. And like I said, people are putting their e-mail addresses, so somebody else is doing the work again for them, they're even sending it to them" (Gillian)*

Gillian discusses the culture of resource sharing within these social media groups as being consumerist in nature, "*have you seen those buy and sell pages? …. it reminds me of that*", and undiscerning: "*people, that … say, oh can I have it, regardless of what it is."* In this online space neither the quality of her work, nor the time and effort it takes produce and share the resources, are recognised. As Primorac states, many forms of online knowledge labour are "often not recognized as 'proper work'" (2016, p. 161), and Gillian seems to understand that her online labour will not be viewed as such by either her school, or the other participants who benefit from "*freeloading*", when she has had to "*put that hard work in*".

Gillian's perspective on resource sharing is supported by Kara who also "*started out sharing things*" on Twitter and the TES website but stopped when "*somebody … ripped one of the lessons that I'd posted on-line and was passing it off as their own*." Kara talks of how she was "*spending an awful lot of time posting things and reading through feeds*" and consequently, "*it really irked me*" "how "*people [were] passing off [my] stuff within the school as their own*". Like Gillian, Kara perceives her digital labour to be unrecognized and unrewarded, both by the school and also by the teachers who benefitted from her work.

7.2.2 Discussion, Advice and Guidance

The use of social media spaces to access advice and gain guidance or answers to questions is a common thread in the literature (McCulloch et al. 2011; Bissessar, 2014; Kelly & Antonio, 2016) and was referred to by 23 participants out of 26 as a reason for participation. The definition of discussion used in this thesis is one of multi-modal participation that "combines elements of face to face communication with elements of writing" (Baym, 2010: 51). In this study this means that a teacher's contribution to a discussion could be the sharing of a resource such as a document or video. As such, the section that follows includes commentary from interviewees on resource sharing and overlaps thematically with the previous section on resources. The thread that links the participants that speak in this section is that they have all turned to social media for guidance: Ben, Denise, Karen, Isla, Neeve and Maddie voice their experiences of asking for guidance on Facebook and Twitter to support them in a time of change; Kathy discusses how she has used Mumsnet to source advice on pastoral issues in school.

Ben: "I was flying by the seat of my pants"

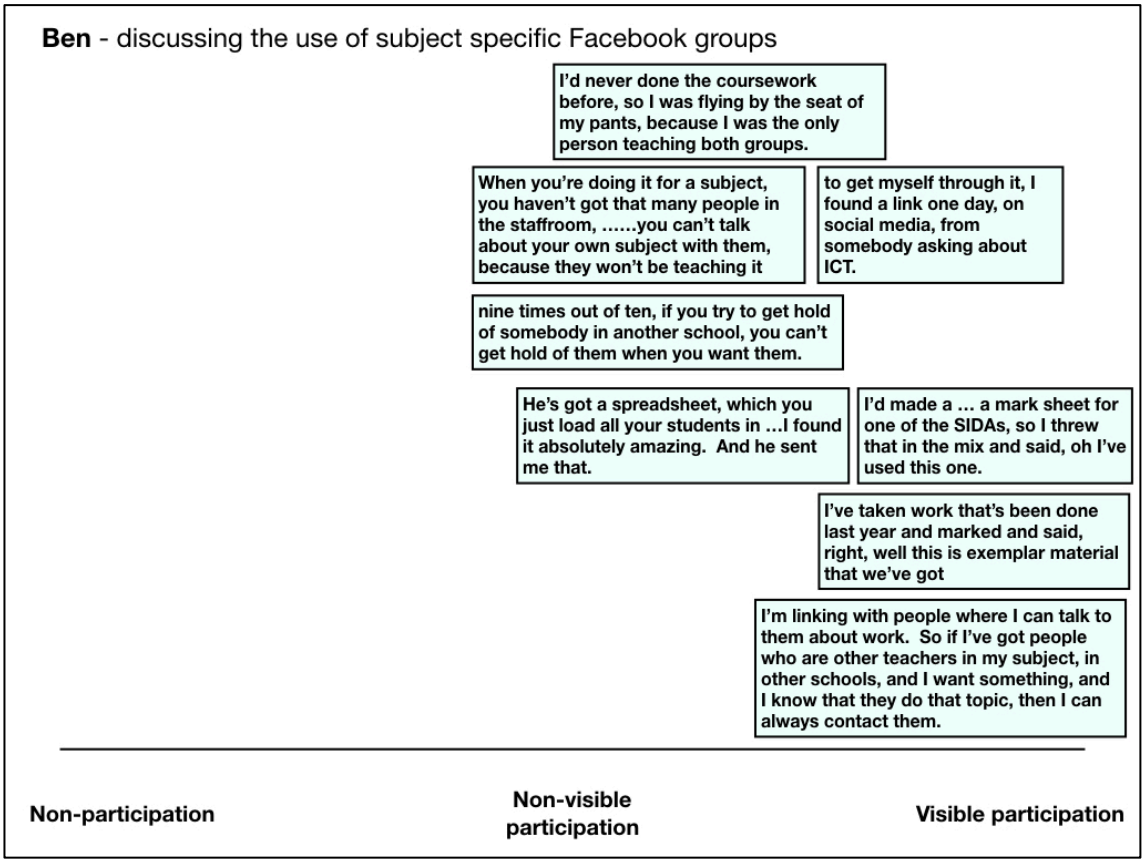


Figure 39: Ben

Ben is an experienced teacher at a new school, and like Natalie, sees himself as isolated within his subject area: "*you haven't got that many people in the staffroom … you can't talk about your own subject with them because they won't be teaching it*." When he transferred to his new school, he found that he was teaching an exam board that he was unfamiliar with and "*to get myself through it*" he turned to social media, specifically ICT focused Facebook groups.

Ben has found the Facebook group to be a rich source of advice and support, "*somebody will ask a question and they get loads of replies back you tend to find that there's … twenty or thirty replies to them.*" This differs from his previous experiences of asking for advice from teachers at other schools, who he found to be remote and unreachable, "*nine times out of ten … you can't get hold of them when you want them*." Ben participates by asking questions, but also by reading the posts and advice on threads generated by others.

> "*People will add into the conversation. Somebody will say something, and somebody else will come back and … ooh, I tried that but I couldn't do this because of so and so." (Ben)*

This collective sharing of experiences is particularly useful because Ben feels de-skilled by the recent changes in his professional practice. He was particularly unsure how to manage the coursework component of the GCSE: "*I'd never done the coursework before, so I was flying by the seat of my pants, because I was the only person teaching both groups*." For guidance in this area Ben turned to the Facebook group to validate his judgements before he sent his marks to the exam moderator.

> "*To send your stuff off to the moderator, there's lots of questions come up, especially over the Easter holiday about, well how do I do this, how do I do that, what do I do this for the moderator? I've given these marks, does anybody know what the best is? And also people would say, oh send me a copy." (Ben)*

Ben describes a landscape of participation in multiple different Facebook groups, each of which is useful for a specific area of need and tailored for a specific audience.

> *"It's focused on that particular subject, and that particular, either exam or a key stage 3. So you're not asking a mass amount of teachers who don't teach it." (Ben)*

The online communities that are to be found in these groups are less like a staffroom than a department office, online manifestations of the "major arena for practice-relevant collaborative work" described by McGregor (2003: 362), with each space clustering together teachers from a particular subject area, exam board or key stage. The clustering of participants in these areas ensures that the experience, guidance and advice being shared is tightly focus on the specific area

of teacher need and enable participants such as Ben to create online the departments that they physically lack in school.

Karen: "none of us really know what we are doing"

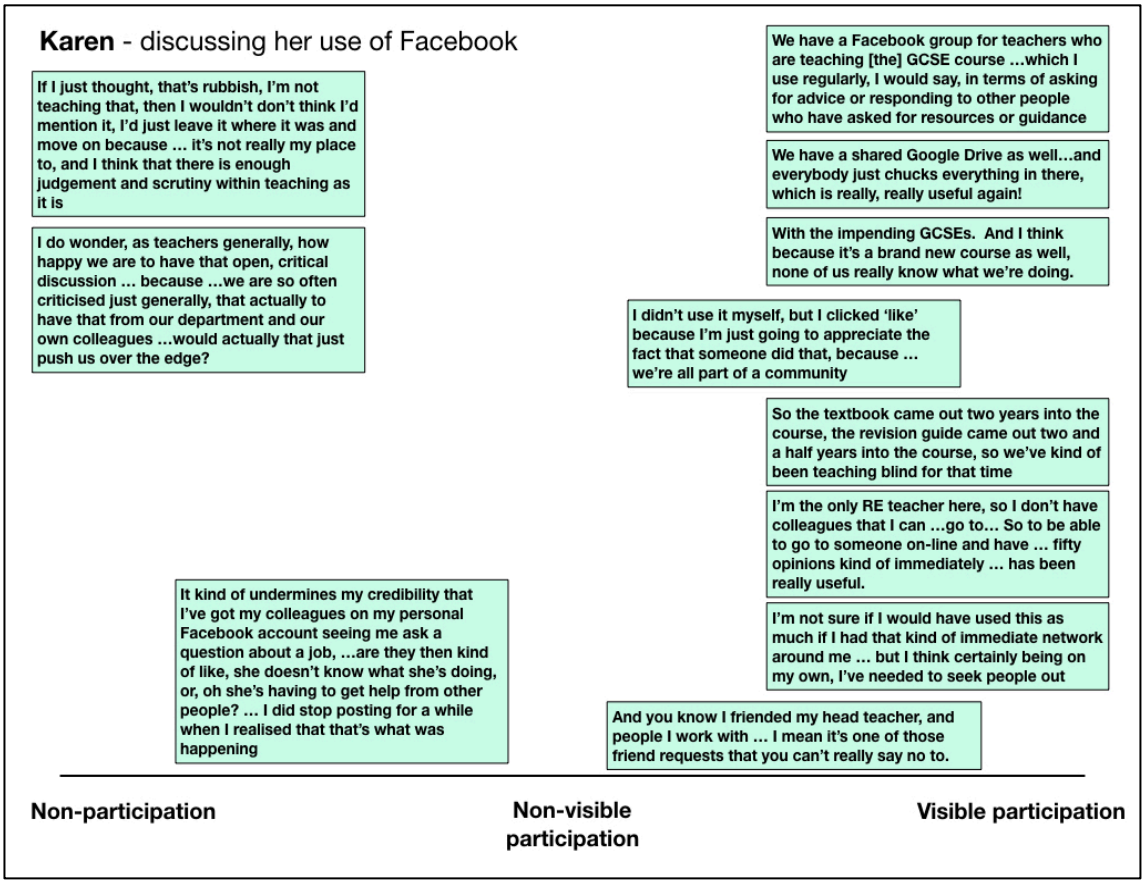


Figure 40: Karen

Karen is a humanities teacher and the only subject specialist in Religious Education at her school. She uses subject specific Facebook groups run by other teachers to form a virtual department that she can access for resources and support online:

> *"I'm the only RE teacher here, so I don't have colleagues that I can kind of go to and just say, right, I've read this, ... but I don't know if I'm right ... So to be able to go to someone on-line and have you know like fifty opinions kind of immediately ... has been really useful." (Karen)*

Karen recognises that isolation has been the biggest motivating factor for her use of social media discussion spaces, *"I think certainly being on my own, I've needed to seek people out."* She is unsure whether she would have felt the need to participate as much "*if I had that kind of immediate network around me."*

The Facebook group provides her with access to resources through a link to a shared Google Drive and also to expert guidance; some of the other participants complete exam marking and their

experiences and insights are shared *"there's quite a lot of people on here that are also marking papers, so they've been talking*". Karen has found this very valuable, particularly because the exam board specification and grading system has recently changed in her subject as part of a national reform of GCSE qualifications. She speaks of this change as causing confusion and uncertainty: she is "*teaching blind*" and perceives this to be a "*guinea pig year*", implying that they are learning how to cope with the new specifications through trial and error. Karen has received training from the exam board but states that "*we very much get the impression that even they're not sure."*

This situation has caused Karen some anxiety. She uses the exam board specification and accompanying textbook to plan her lessons but has found that these fall short on the level of detail that she needs:

> *"[In} the textbook, there was about half a paragraph and in the exam, the question that came up, they expected fifteen marks. And I just thought, I … I don't know what depth I should go into or … I really felt like I wasn't meeting the kids' needs in terms of preparing them for it because… there just wasn't enough guidance." (Karen)*

In these circumstances, access to an online resources bank compiled by subject specialists is "*really really useful*". Like Natalie and Ben, Karen turns to social media to provide a form of professional peer support, as through the use and imitation of the online resources sourced through social media, she can plug the gaps that have not been filled by the textbooks or training from the exam board.

> *"So I just thought if someone had something pre-prepared, then I would at least know, oh that's what someone else has done, that's what I should do*" *(Natalie)*

Karen recognises that teacher-run Facebook groups are not the perfect solution to her current predicament. These groups are not officially sanctioned and representatives from the exam board do not participate in the conversations online. She describes the advice that is shared online as being *"a little bit rogue"* because, although they might welcome input from exam markers who will "*weigh in and say… we were told this last week*" they lack the "*structure*" and certainty that guidance from the exam board could provide. She suggests that perhaps the exam board could "*run their own Facebook group … instead of us kind of blindly going, well do we do this or do we do that",* but recognises "*that's not maybe part of their job".* Interestingly, Karen does not reflect on whether it is part of her job to seek online for the answers to the problems she is experiencing with the new GCSE: she has tacitly accepted that there is no other recourse of action. As with Natalie and Ben, this is a deficit model: social media groups are providing a valuable forum for

resource sharing, advice and guidance, but they are most valuable for teachers who are experiencing a lack in these areas. In terms of the needs of individual teacher, it is extremely useful that this supportive community can rush to fill the gap, however, in terms of the needs of the wider education system, it is concerning that educators are reliant on the creation of ad-hoc solutions in the place of official guidance.

Isla: "It has been incredibly helpful"

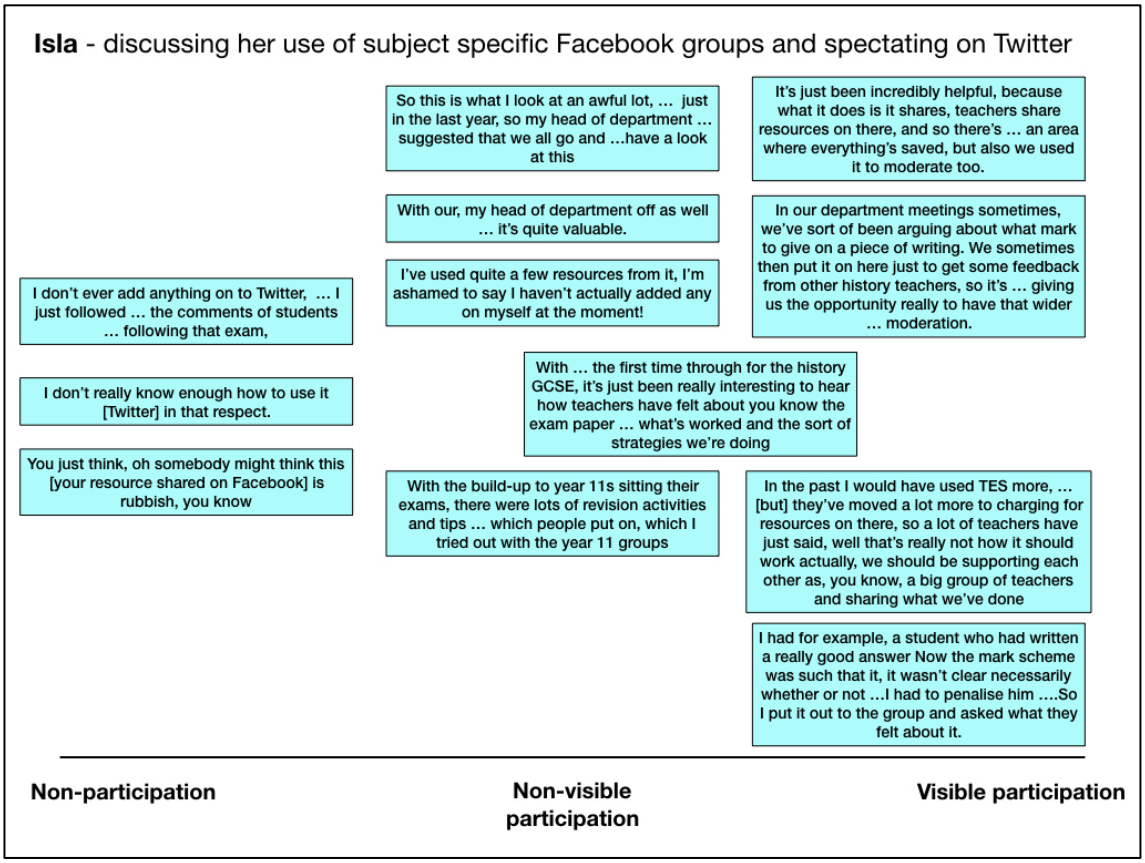


Figure 41: Isla

Isla works in a humanities department, and like the other the humanities teachers in this project, Beth, Mike, Ursula, and Karen, uses a subject specific Facebook group relevant to her exam specification. She uses it to "*share resources*", to store resources "*as an area where everything is saved*", and also as a means of moderating pupil work.

For Isla, the guidance that the Facebook group provides in a time of change is particularly "*valuable*" because her Head of Department has been absent. It is their "*first time through for the History GCSE*" and, like Ben and Karen, she has been using the Facebook group to provide clarity.

> *"In our department meetings sometimes, we've sort of been arguing about what mark to give on a piece of writing. We sometimes then put it on here just to get some feedback from other history teachers, so it's … … giving us the opportunity really to have that wider … moderation."*

Some of the teachers within her group have been to "*special*" exam board training and are able to give "*good clarification*" on how to apply the mark scheme. Isla thinks that "*we're still learning it*"

and she is still "*not sure*" when to award marks, particularly if the mark scheme "*wasn't clear …whether or not I …had to penalise*".

Isla has also been using the group to crowd source advice on teaching approaches, "*strategies", "what's worked", "the offering of holiday time", "study clubs*", "*revision activities and tips*". Whilst she has used quite a few resources sourced from Facebook, she is "*ashamed to say I haven't actually added any on myself at the moment!".* However, she is willing to post examples of pupil work and crowd-source advice. In this sense the Facebook group is compensating for the professional knowledge that has vanished with the introduction of the new qualifications:

> *"You know, with the old exam board, we were, we were pretty much all over it, you know, we had a lot of, you know prior experience from it." (Isla)*

Although Isla has had a Facebook account for 7 years, she has only belonged to a subject-specific group for the last year. She feels that in these new circumstances "*it just feels like you've got quite a good support network from … everybody in the same boat together".* Ben and Karen turned to Facebook to mitigate their isolation within their school and find the departments that they lacked, Isla has a department but lacks leadership. She has turned to Facebook for the guidance and direction that she cannot source in school.

Denise: "the discussion is more useful than actual physical resources"

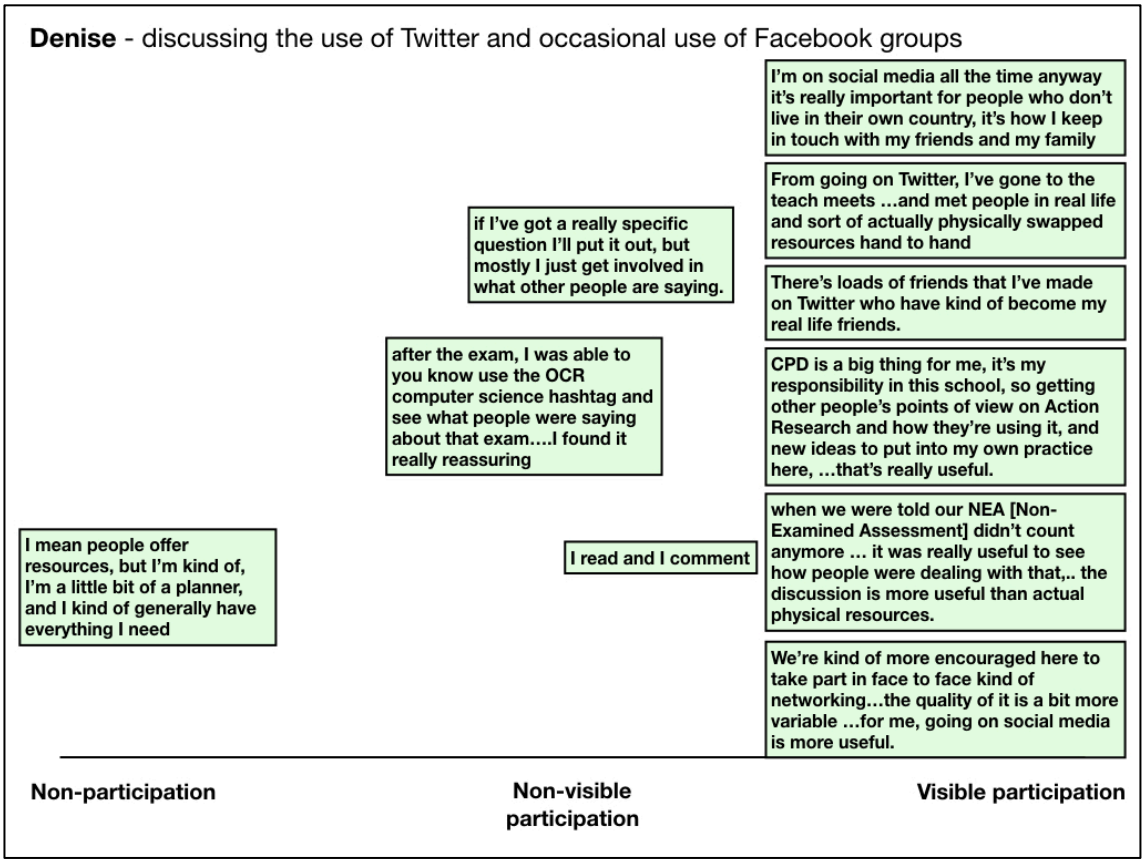


Figure 42: Denise

Denise is a computer science teacher and uses "*on-line spaces for a few different things and in different ways, both for my own CPD and for teaching children*". She is keen to use new and relevant technologies with the pupils that she teaches, seeing this as a way to engage the pupils who can be harder to reach. One examples of this is her use of Snapchat, where she includes "*precise technical language from the mark scheme*" within her posts to support pupils in their revision.

As an expatriate teacher, Denise sees social media as "*really important*": she is on it "*all the time*", "*it is how I keep in touch with friends and family*". Her school is supportive of the use of social media and many teachers use Twitter, although there are no specific guidelines on how teachers should use social media for professional development. There is just an "*acceptable use policy … the standard things of not bringing the school into disrepute".*

At her school, Denise says that "w*e're kind of more encouraged here to take part in face to face kind of networking"* and, like Tamsin and Beth, Denise is provided with regular opportunities to meet up with other teachers for CPD. However, Denise has found that "*the quality of it is a bit*

more variable, because you don't know who's going to turn up" and because "*it doesn't start till four, and it goes on till six", "it makes it into a very, very, very long day".*

For Denise, "*going on social media is more useful".* She prefers to "take control" of her own professional development in the manner argued by McCulloch et al. (2011: 4) and self-direct her own learning.

> *"So when I have got a couple of minutes to have a quick look, that's better for me and I get more out of that than spending two hours sitting there when I physically might get nothing out of it at all. Because at least on Twitter, if SLT chat isn't useful that night for me and what I'm doing, then …, I don't have to be in it, I can walk away from it." (Denise)*

She has also formed her own real-life community of friends and colleagues through the interactions that she has had on Twitter: "*I've gone to the teach meets … and met people in real life and …actually physically swapped resources hand to hand… and just seen them socially as well."* The community of support that she has found on social media seems to be better matched to her professional needs than the CPD group that she belongs to through school. Whilst the IT group she is part of face-to-face is "*less useful because people don't engage with it as much*", the communities that she has engaged with on social media have been "*really useful*". Denise has used social media in her role as professional development co-ordinator for her school, to access "*other people's points of view on Action Research and how they're using it",* and also as a subject teacher of computer science She found it particularly useful when she experienced issues with the accreditation of coursework in her subject:

> *"When we were told our NEA [non-examined assessment] didn't count anymore … it was really useful to see how people were dealing with that, how people were telling their kids, how people were managing it." (Denise)*

Similarly to Ben, another computer science teacher, Denise has found social media most useful at a time of uncertainty because through the discussions that she read and commented in she could receive guidance on what to do. It is this aspect of social media that she values most highly, for her, "*the discussion is more useful than actual physical resources".*

Neeve: "everyone was up in arms about it"

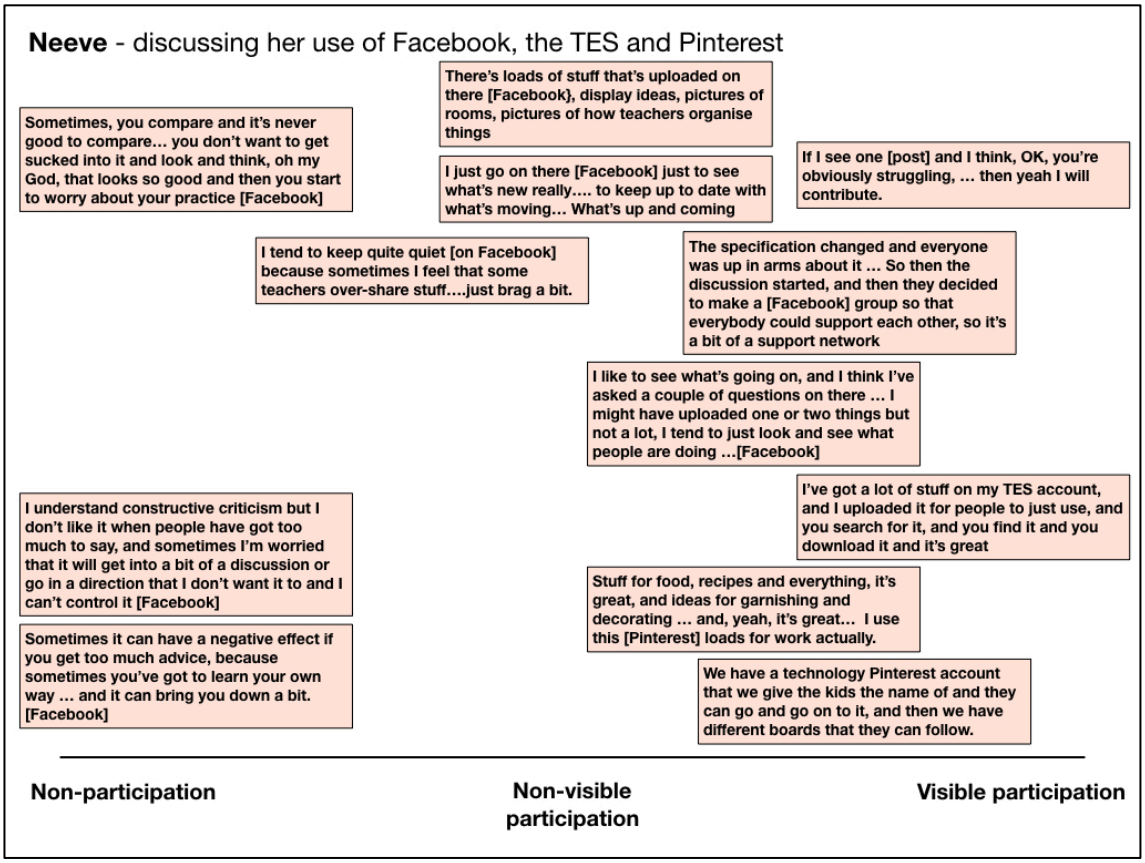


Figure 43: Neeve

Neeve is a technology teacher, and uses the Facebook groups, the TES resources page and Pinterest to inform her professional practice. She joined the Facebook group for her subject and GCSE specification last year "*to get some advice really, because the specification changed*". The content of the GCSE also changed as part of the specification reform and "*everyone was up in arms about it because they took a lot of the textiles stuff out of it".* Neeve describes herself and other textiles teachers as "*worried*" and fearful that "*the Department of Education are trying to get rid of textiles".* In response, they "*decided to make a group so that everybody could support each other".*

This Facebook group now functions as a forum for advice that is related to the new GCSE specification such as "*what topic are you covering for the GCSE specification?"* or help with *"questions and exam preparation".* Neeve uses the group *"just to see what's new really"* and also to "*link up with friends*" or contribute to "*petitions …to do with the new GCSE specification*". She also uses it to browse and save resources "*there's loads of stuff that's uploaded on there, display ideas, pictures of rooms, pictures of how teachers organise things".*

Neeve's approach to the sourcing of resources is flexible, "*I will go and use whichever media I need to, to be honest*". This seems to be a practical demonstration of Miller & Madianou's (2012) theory of polymedia. Whereas in Miller & Madianou's (2012) research participants migrated across platforms dependent on how each one met the communicative needs of their conversation, Neeve uses a range of different social media dependent on her professional needs. Neeve turns to Facebook for look for videos, partly because she accesses Facebook at home for personal use: "*if I'm just sat at home on my phone, I will save the videos, I've got quite a lot saved on my … account I think".* She goes to Pinterest for "*recipes … because I teach food as well*", and to the TES for when she wants to find a resource but does not want to be distracted: "*because it is just resources, there's no discussion with it, there's no pictures that go with it, it's just you go on, you search for what you want, you find it, you download it".*

Whilst Neeve has shared resources online before, particularly on the TES which she values as a resource sharing space, she does not contribute resources to the Facebook page. She "*tends to keep quiet*" because she feels that "*teachers can over-share*" and "*brag a bit*". She has found that she starts to compare herself to others, "*get sucked into it and … start to worry about your practice".* Similarly, whilst she has "*asked a couple of questions*", she avoids getting drawn into discussion. She doesn't like it when "*people have got too much to say*" and, like Sophie, worries that the conversation will "*go in a direction that I don't want it to and I can't control it*". This is a perspective that was echoed by Tamara in her interview where she talked of worrying about being "*misconstrued*" because "*it is easy to get misunderstood*". Neeve is also conscious that "*too much advice*" can have a "*negative effect*". Like Natalie and Susan, she thinks it is important that teachers demonstrate independence and autonomy: "*you've got to learn your own way*" and sometimes even well-intentioned guidance from others "*can bring you down a bit*".

Maddie: "what do other people find successful?"

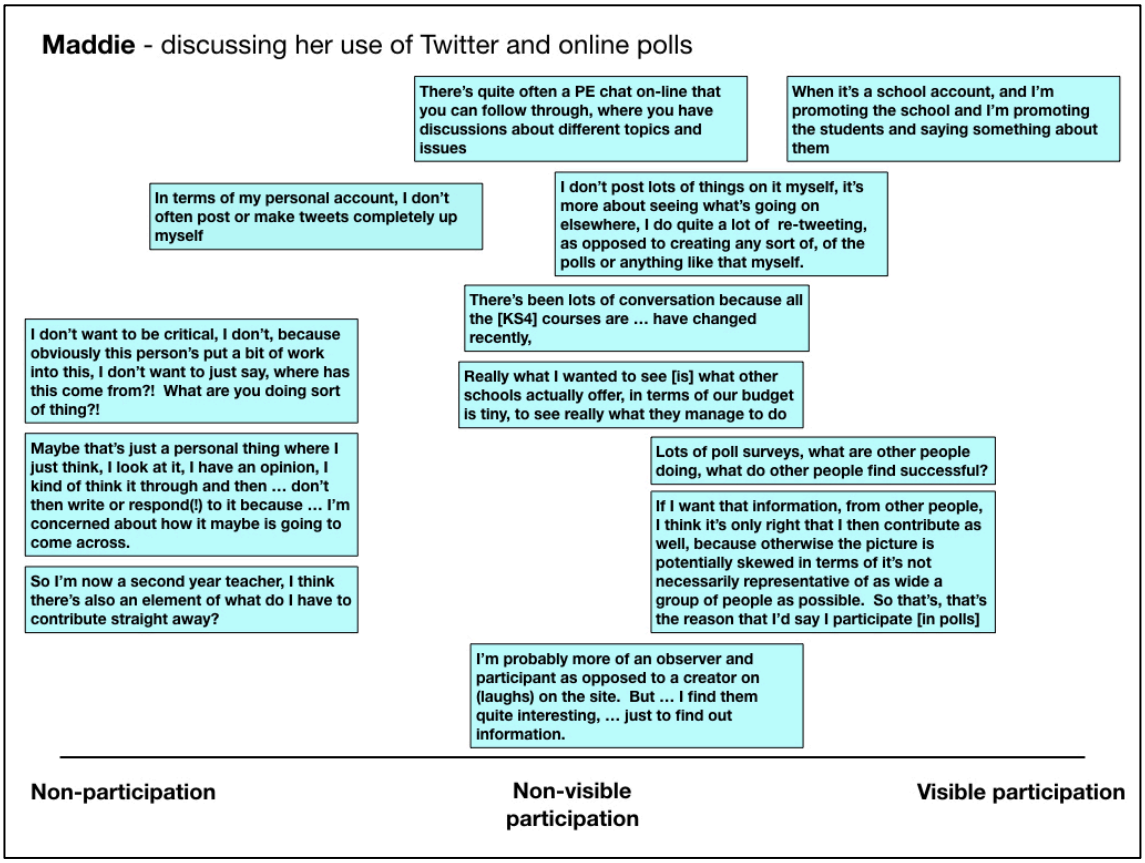


Figure 44: Maddie

Maddie uses Twitter for professional purposes. She has her own personal account, her professional account, and contributes to the PE department Twitter account. Maddie usually accesses all of these accounts through her phone and "*I just flick between the three*". Maddie uses her professional Twitter account to "*tie in with the school's accounts and to be able to promote things in terms of the school*", and also to "*follow a lot of conversations, educational conversations, particularly looking at PE*".

Like Denise, Maddie uses these conversations to "*see what other schools do and what works for other schools"*. This could be practical advice such as how to set up "*year 10 and 11 core PE*", or to get a sense of "*what other schools actually offer*", "*to see really what they manage to do*" with a "*tiny*" budget. Maddie's department has also used Twitter recently to source guidance on the changes in the Key Stage 4 qualifications:

> *"All the courses are … have changed recently, so the GCSE PE course has changed in the last two years, so it's what exam boards you go with, how have you found it. And then the same with BTEC sport, in 2020 BTEC sport will no longer exist as a qualification… so ..*

.its … finding an alternative, or if there is an alternative, because … there's not one that's exactly like BTEC". (Maddie)

One way in which they have done this is by participating in online polls. These are multiple-choice questions on a specific, similar to those accessed by Tamsin on Teacher Tapp, that provide statistics on the range of responses once the participant has contributed their views (see Figure 45).

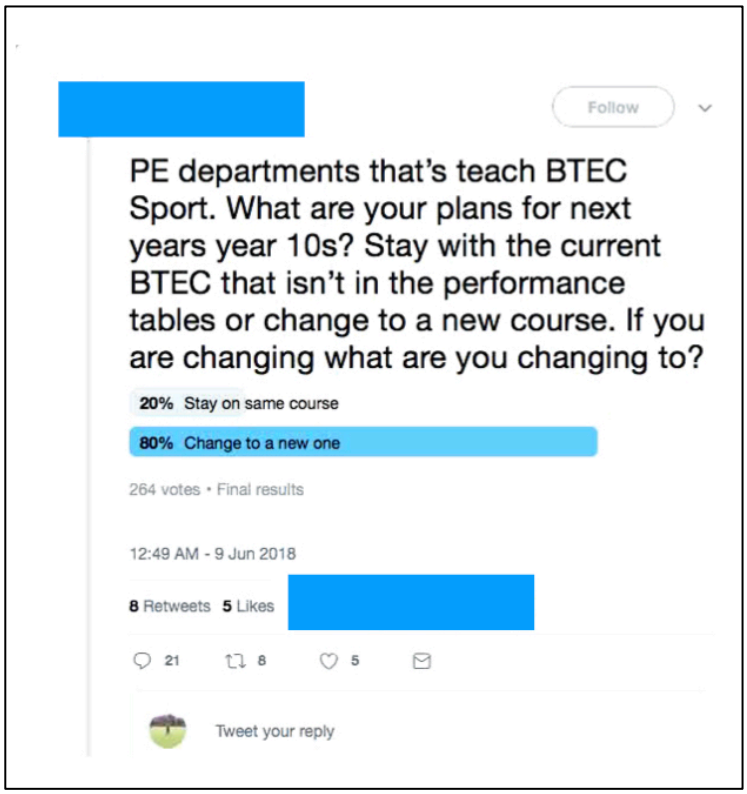


Figure 45: Twitter Poll

Although Maddie self-identifies "*more of an observer and participant as opposed to a creator*", she is willing to participate in the polls because "*if I want that information, from other people, I think it's only right that I then contribute as well*". She uses the polls to "*reflect on what we do here*" and to "*what's going on elsewhere*".

Overall, Maddie has found the Twitter spaces in which she participates "*very supportive*", although she is still reluctant to participate visibly herself. She doesn't often "*post*" or "*make up tweets*" and is more likely to retweet or spectate than join in with a conversation. This is not because she is unwilling to participate "*I'm happy to have that conversation*", but because, as a second year teacher she feels too inexperienced to contribute. Like Natalie and Susan, she questions, "*what do I have to contribute straight away*?"

Kathy: "It's an experiential thing"

(see Figure 24 for participant diagram)

Kathy does not use subject specific Facebook groups or Twitter for discussion. Part of her reluctance to engage with Twitter is that its purpose is not discussion as she perceives it. She uses it "*receptively",* "more like a search engine than anything else" She feels that the site lacks "*the sort of level of negotiation and, erm, sort of kindness that you get in a conversation with a real person*" and that by contributing you expose yourself to "*be quite heavily criticised by the online community, who hide behind anonymity*". However, on a different platform, Mumsnet, where the context of social practice is more focused on talk and discussion, Kathy's participatory engagement is different and she is "*more willing to stay online and to be involved in the conversation*".

Kathy describes the Mumsnet community as being focused on advice and support. Within a particular section of the platform – the 'Staffroom' – parents, Newly Qualified Teachers, or people who are thinking of re-training as teachers, post questions and seek advice. In this social media context, Kathy feels as though her professional experience has value: "*it's an experiential thing, it's not necessarily about pedagogy, it's more about what is your experience of day to day life.*"

Whilst on Twitter, Kathy discusses anonymity as a cause of conflict and judgement: "*that sense of unreality can lead people to be really quite hostile and aggressive*", on Mumsnet it creates a safe space in which sensitive problems and topics can be shared. Within this context, Kathy is happy to post and to seek advice on issues which are relevant to her professional practice. The anonymity means that "*it is never related to you*" and she can maintain both a personal and professional distance. She uses Mumsnet to fill the gaps in her own personal experience, such as how best to support a boy in her tutor group whose parent had a life-limiting illness, or how to anticipate how a particular school policy decision would be received by parents:

> *"I was asking the parents, who were dealing with partner's life-limiting illness and thinking about how to protect their children … what support they would expect from school, and what would be the ideal, is you could have that from school. Well this was a number of years ago now but I did really find that the responses that I got did shape the way that I was supporting that pupil, and it was very useful because it was quite illuminating, people who were actually in that situation because it is online, because it is anonymous they were very honest." (Kathy)*

Kathy's choice to use Mumsnet as a source of guidance and support is not motivated by isolation per se – there are other people that she could potentially turn to at her school, although perhaps

not many with relevant experience in this area. Life-limiting illness is also a sensitive topic that would be potentially awkward to discuss with a colleague. On Mumsnet, Kathy has found that anonymity enables a level of honesty that she would find difficult to access elsewhere. Like Ben, Kathy is using a social media space to seek out specific advice and guidance and, ironically, has found that within this online 'staffroom' space she is able to get the answers to questions that she couldn't ask in the staffroom at school.

7.2.3 Networking

The final area discussed in this chapter is the use of social media for promotional purposes: for teachers to use online platforms to evidence their work and make others aware of the work that they do. Harry and Fran both discuss their use of Twitter for these purposes in the interview data that follows.

Harry: "you know who I am now, so you can look anytime at what I do"

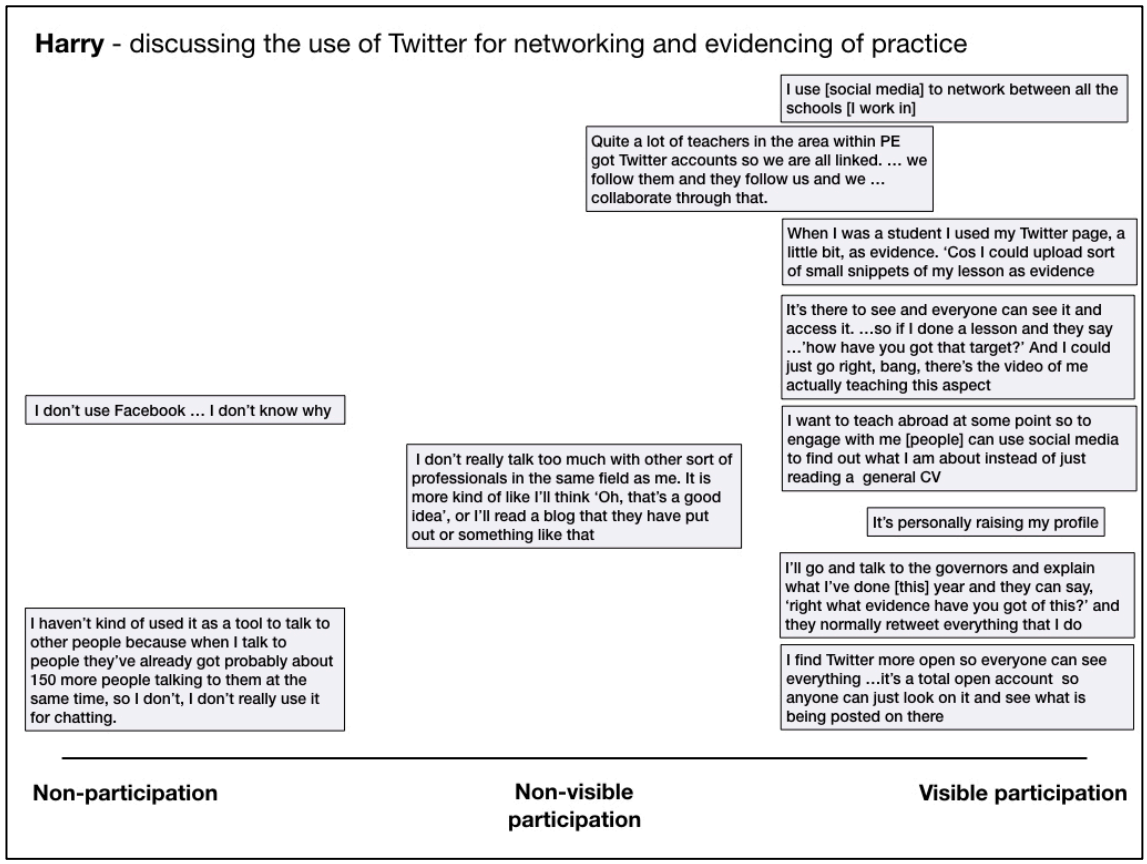


Figure 46: Harry

Harry is a PE teacher; he teaches at a secondary school and also works with primary schools in the local area. He uses Twitter to "*network between all the schools and … link ... with [Name of Secondary School] as well*." One form of networking and collaboration that Harry describes is through the use of Twitter to follow other local teachers, thus, similarly to Mary with her local network, adding another strand of communication to the face-to-face informal collaboration that happens between teachers in the same subject area:

> *"Teachers within PE that have got Twitter accounts … are all linked. So, we follow them and they follow us and we kind of collaborate through that." (Harry)*

Twitter in this context functions as a news or messaging service, "*we've used it quite well here to get messages out like there's games tonight*", and to raise awareness of the extra-curricular events that are on offer. Harry also uses this network of local teachers and schools on Twitter as a means of promoting and evidencing the work he is doing in each school: "*the schools pay out of their provision for me to go in and develop their CPD … we evidence everything as we go*."

Harry started to use Twitter as a personal record of professional practice whilst he was a student teacher, "*when I was a student I used my Twitter page … 'cos I could upload small snippets of my lesson as evidence".* This mode of working has now become a useful accountability tool when working with other local schools who buy him in to supply professional development for their teachers:

> *"[The local primary school] have got a big thing every year where I'll go and talk to the governors and explain like, what I've done between the year and they can say, 'right what evidence have you got of this?' and they normally retweet everything that I do.*
>
> *Then any time I need to call back on it, to sort of back me up, to help the school say, 'right, how've we spent this money effectively?' I can say, 'Right. We've done gymnastics, we've done rugby, we've done everything here." (Harry)*

Harry's use of Twitter here enables him to provide a public record of his actions. In an interesting contrast to Sophie and Susan, who avoid visible participation because they cannot control the judgements of others, Harry participates visibly on Twitter for precisely this reason: to direct and manage the perceptions of the schools that he works with. In order for Harry to be able to use Twitter in this way, it is important that his account is open and that it can easily be found by others. He can see who is looking at his posts and is comfortable with anyone looking at his professional practice,

> *"I can see who's looking. I do have parents from primary schools who follow me on there. I don't have a problem. I mean if it is my own personal social media then I'd object but on here I don't mind." (Harry)*

Maintaining transparency on his professional account is important to Harry, *"everyone can see everything… there is no hiddenness, secretiveness around it",* as this way it is an open record of his teaching practice. He also uses this transparency as a form of protection; to avoid people making false judgements about the work that his does. He avoids direct messaging, and tries to balance the amount of content that he places online for each primary school so that they can see that he

is being fair: "*I'd just work on it like that so all schools are getting that engagement with me because I don't want to exclude*."

Harry tracks the number of people that have engaged with his account, noting, for example, that one tweet has received 294 impressions, "*294 people have seen it somewhere along the line so you are hitting a really big audience."* For Harry, being visible to this many people presents opportunities. He speaks about using his Twitter profile as a real-time online CV:

> *When I've had job interviews …people have talked about it and they're like, 'why, why do you use it?' 'Why, what, what benefit do you find from it?' And I was like 'Well, personally, you know who I am now, so you can look anytime at what I do." (Harry)*

Of all of the teachers interviewed, Harry is the most comfortable maintaining a visible professional persona on social media. He doesn't engage much in discussion; the conversation here is one way. However, Harry has used social media in a way that enables him to feel empowered in his conversations with schools and other teachers. In an interesting contrast to the teachers who use privacy settings to avoid being 'found', it is the total transparency and visibility of his social media profile that enables him to feel in control; by inviting others to look at what he does, he is able to control what they see.

Fran: "it's been a way to extend my reputation"

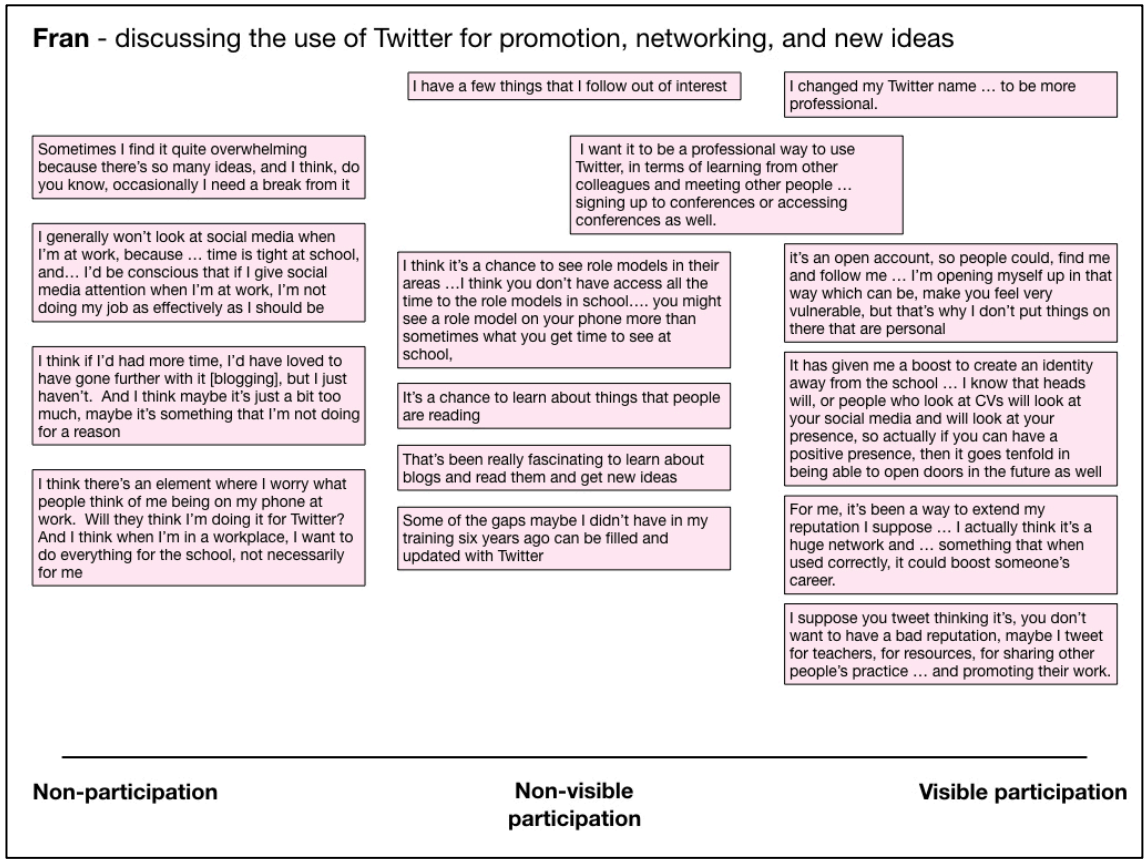


Figure 47: Fran

Fran is a lead practitioner and like Harry considers it important to maintain a professional social media identity online. She recently changed her Twitter name to be "*more professional*" and it now includes a reference to her lead practitioner role. Fran has also recently altered her privacy settings to 'open', something that has made her feel "*very vulnerable*" but she wants people to be able to find her and follow her.

Fran has found Twitter useful as a source of professional ideas and role models:

> "*I think Twitter has exploded for teaching in the last two, three years, I feel like it has really become a huge resource in terms of teaching, learning and connections and networking.*" *(Fran)*

She sees Twitter as a space in which she can learn from colleagues and meet other people, and speaks of opportunities to present at conferences that have resulted from the connections that she has made online: "*when I did my lead practitioner qualification, I had to show that I was presenting to other people, and he [teacher met through Twitter] gave me that opportunity.*"

Like Harry, Fran sees social media as key to establishing a professional reputation as a teacher: "*it's been a way to extend my reputation …. something that when used correctly, it could boost someone's career*." She shares resources, news and retweets and promotes other people's work. Fran is careful to ensure that she doesn't have a "*bad reputation*" on Twitter; she is open about her status as a humanities teacher and lead practitioner and avoids putting "*too many personal opinions on there*."

Similarly to Harry, Fran perceives Twitter to be a public record of her professional practice. She has recently applied to a new job, and states that she has been able to secure this job partly through the reputation that she established online:

> *"I have been able to boost my reputation in terms of networking with other schools, a new school that I'm joining, part of that reputation has come from social media." (Fran)*

Fran presents social media as being a means of extending her identity as a teacher beyond the walls of the institution that she teaches within, "*it has given me a boost to create an identity away from the school about maybe who I am*". Like Harry, Fran sees social media as empowering. It enables her to supplement her professional learning, "*learn about blogs and read them and get new* ideas", reach out to other professionals, and create future career opportunities. She sees other teaching professionals on Twitter experiencing success through their use of social media and sees them as role models:

> *"When used correctly, it could boost someone's career. You know I can see it on there all the time, people that have published books, that have done things that had they not been on social media, I don't necessarily think they'd have found it as easy to get the followership." (Fran)*

Fran is keen to follow in the footsteps of these successful Twitter professionals. She has recently started a blog in order to have an "*impact in a wider network*" - a requirement of her recent lead practitioner training. However, she has found the blog difficult to maintain alongside her daily teaching practice when she lacks time for social media during the school day: "*there's an element where I worry what people think of me being on my phone at work. Will they think I'm doing it for Twitter*?"

For Fran and Harry, visible use of Twitter is part of maintaining a professional public profile as a teacher. Their participation in their community of professional practice goes beyond the institutions in which they work to a wider network of educators, parents, governors and teaching professionals. There is no clear separation between the online and offline in this context; their use of social media supports their teaching practice within school through the collation of new ideas

and resources; their teaching practices and professional reputation are then promoted through their use of the same social media spaces online. McGregor, (2003) argues that the workplace of teachers extends “well beyond the physical limits of the institution or the temporal boundaries of the school day” (365) because the institution is “continually being produced by interconnecting relationships and practices” (353). For Fran and Harry, it is not just the workplace, but also their professional identities that are being co-constructed by the connections and relationships that they have formed in social media spaces that stretch beyond the traditional physical limits of the institution.

7.3 Summary

Participation on social media spaces is a negotiated process that is dependent on the needs, requirements and expectations of the other contexts in which a teacher lives and works. It is not possible to fully separate the professional and the personal within social media: often teachers use the same platform for more than one purpose and it can be difficult to define when conversations with colleagues fall into the personal or professional sphere (Fox & Bird, 2017). From the evidence provided by teachers in these interviews, schools seem wary of the blurring of these boundaries and many of the teachers speak of risks and grey areas, indicating that they are uncertain how far they can allow social media to be part of their professional working life. Although teachers can speak with clarity about the safeguarding risks that accompany social media use, none were able to articulate how use of social media for professional development purposes sits within school guidelines.

This picture is complicated by the use of social media by schools to communicate with parents, celebrate success, and promote their work. School departments often have a presence online as a Facebook or Twitter account and the management of these accounts has a become part of teachers' work. However, the use of these accounts is something that happens beyond the school day because social media use within school hours lacks acceptability. Similarly, the professional development that teachers undertake online, whether that is sharing resources, reading articles, moderating pupil work or offering advice, is also performed outside of school hours.

This paradox, that social media use is part of a teacher's work, but cannot be performed during the working day, has led to a clash of contexts. Teacher use of social media for professional purposes is often at the expense of their personal life. Interviewees speak of a working day that is in danger of becoming all encompassing, of intrusion, and "*twenty-four-hour access*" (Beth). Many of the interviewees managed to re-establish boundaries through negotiated forms of participation such as reading rather than posting, or only using social media at certain times, but for some, the only way to preserve work-life balance is to remove themselves from the social media space entirely.

This confusion surrounding the time and place for social media use by teachers in the workplace is unfortunate, because many interviewees speak of the value of participation in social media spaces for professional development. Most teachers interviewed use social media for inspiration: to gather ideas and resources that refresh their practice in the classroom. Others turn to social media for clarification or to fill a training gap, such as the advice and guidance sought and shared in subject specific Facebook groups. In this sense, social media discussion spaces have a role to

play in providing teachers with a support network that can address professional issues at the time of need.

In the next chapter, I address the complexity that has emerged in the data surrounding the use of social media for professional development purposes. I discuss how these empirical data call for a more nuanced understanding of teacher participation and outline a theoretical construct that describes participation in social media spaces as a process of negotiation between the needs, expectations or restrictions of inter-related contexts.

Chapter 8 Discussion

In the previous chapter, experiences of teacher participation on social media for professional development were explored through the responses of these teachers to a questionnaire and to interview. This empirical data was addressed thematically, through the voices of key participants to explore their individual motivations. These teachers presented their participation online as a complex and nuanced process that that is responsive to the needs and demands of their professional role in school, their personal life, and the restrictions and affordances of the social media context in which they have chosen to (non)participate.

In this chapter, I draw together the empirical data gathered from the participant teachers and the theoretical literature to consider the spaces that have been created online, how these are being used by teachers, why teacher choose to (non)participate, and how this participation functions as a form of professional development.

The chapter starts with the presentation of the theoretical model that guides the subsequent discussion and analysis. The theoretical model is then used as a structural device, to organise the information and arguments made in this chapter. The chapter starts by approaching the issue of teacher participation by considering the affordances and limitations of the social media platform and the choices that are made by teachers when this overlaps with the professional sphere (considerations about when and where the online context is accessed) or the personal sphere (how social media is used and how this fits with a participant's personal life). I then approach the issue through the professional sphere, considering the nature of discussion within social media contexts and how this functions as a form of collaborative professional development. Finally, I consider the dynamics of (non)participation, focusing on how the participatory overlaps between the professional and personal contexts when using social media for professional development raise issues around workload and digital labour. As each of the different contexts of participation are inter-related it is not possible to address each one in isolation, rather, the concerns raised by each are used to guide the argument in turn and develop a theoretical understanding of the nature of participation for professional development on social media in each section.

8.1 Theoretical Construct

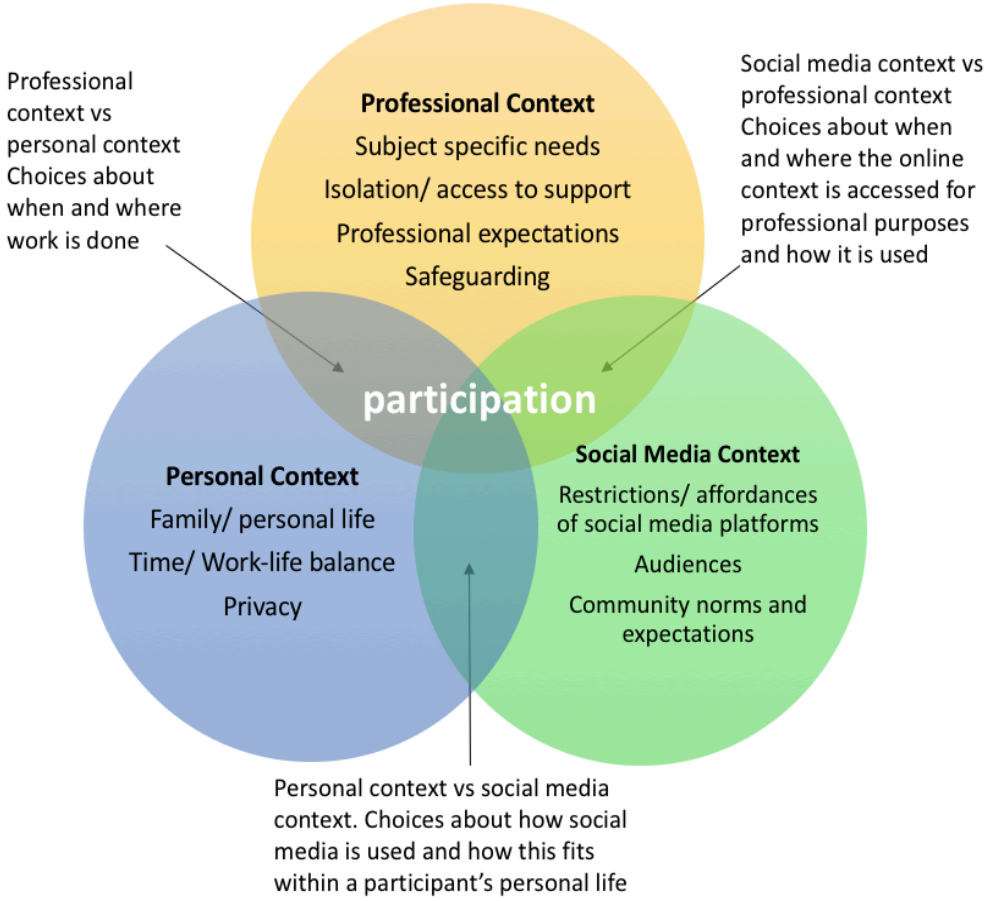


Figure 48: Theoretical Model

The construct presented here represents the theoretical contribution to knowledge made in this thesis. It addresses the gaps in the empirical and theoretical literature by positioning discussion spaces on social media as an inter-related professional context rather than a separate space and illustrates (non)participation as a process that is influenced by the competing needs of teachers' other personal and professional contexts of social practice.

This construct presents teacher participation in social media spaces as a process that negotiates between three social contexts of action: the professional, the personal, and the social media context.

The professional context refers to participants' role as a teacher and the professional expectations attendant to this that either motivate or restrict participation. For example, the

need for teaching resources or advice may provide the impetus for joining a subject-specific discussion group, or, conversely, the way that a school's expectations for how teachers will enact their professional obligations towards the safeguarding of pupils may restrict their use of social media platforms.

The personal context refers to participants' individual contexts and how these influence their participation within the professional context outside of the school day, and their use of social media. For example, teachers with young families spoke in interviews of the need for stricter boundaries between professional and personal spheres due to the increased demands in their home life, which lead to a reduced use of social media.

The social media context refers to the affordances and restrictions of the social media space itself and how these structures influence participation. For example, this could refer to large audiences available on social media which present participants both with the capacity to reach out to a wider audience and promote their work but also the difficulty of not knowing exactly with whom they might be communicating.

The overlap between contexts illustrates the process of negotiation that influences the forms of participation that a participant will be able to enact. The overlap between the professional and personal contexts represents the choices that a participant makes over when and where work is done: whether they choose to continue participating 'in role' as a teacher once they leave work. The overlap between the professional and social media contexts illustrates the choices that teachers make about which platforms to use for their professional development needs and when these can be accessed. Central to the participatory choices that are made here is whether the school perceives the participation online to be part of a teacher's 'work' and therefore sanctioned for use during the school day, or within the school buildings. Finally, the overlap between the social media and personal contexts presents the choices that participants make about how the use of social media platforms fits within their lives and whether they wish to use them. For example, participants who wish to keep elements of their personal lives private control or limit their participation on social media in order to establish strict personal boundaries.

Participation is the central concept in this diagram and in this thesis. This theoretical construct presents participation as a complex process in which the inter-related contexts of a teacher's working life, both online and offline, influence and restrict the choices and actions they make. In the rest of the chapter I discuss how these contexts influence teacher participation and the impact on their engagement with collaborative professional development online. The chapter starts with an exploration of the spaces that teachers construct and the affordances and

restrictions of these social media contexts. I then address the personal and professional spheres and explore how the concerns and interactions of these contexts and the social media context influence how and why teachers participate.

8.2 Space in the Social Media Context

From the data gathered in this research, it is clear that it is not only necessary to look at the kinds of spaces that are being created within social media by teachers, but also how the affordances of the different social media spaces are enabling or restricting certain kinds of participation. As boyd (2010: 55) argues, "participants are implicitly and explicitly contending with these affordances and dynamics as a central part of their participation". Just as the social and physical structures of the school buildings constrain or encourage certain kinds of participatory behaviour, the networked technologies and structures of social media spaces also afford or restrict the interaction required for collaborative professional development.

Within boyd's (2010: 49) definition of the structure of 'networked publics', three central dynamics play a role:

> "1) Invisible audiences: Not all audiences are visible when a person is contributing online, nor are they necessarily co-present.
>
> 2) Collapsed contexts: The lack of spatial, social, and temporal boundaries makes it difficult to maintain distinct social contexts.
>
> 3) The blurring of public and private: Without control over context, public and private become meaningless binaries, are scaled in new ways, and are difficult to maintain as distinct."

It is these dynamics that shape the structure of the social media spaces in which teachers participate and it is the consequences of these dynamics that teachers negotiate when trying to interact with each other on social media.

8.2.1 Subject-Specific Facebook Groups

The most common spaces referenced by interviewees as a site of collaborative professional development in this investigation were Facebook groups. Teachers were using these groups to share resources, seek advice, and moderate judgements with other specialists in their subject area. These groups have the advantage of a known audience: participants must apply to join and

be approved by group moderators and this provides participants with a sense of safety. The resultant "*community*" (Karen) and "*support network*" (Neeve) that are created are similar to the Facebook groups that are discussed in the empirical literature as 'safe spaces' for trainee teachers (Kinchin & Bryant, 2015; Lu & Curwood, 2015), or as locations in which teachers share resources and provide each other with emotional support (Bissessar, 2014).

In my research, these groups were most successful as a source of support when they mitigated isolation for those teachers working as the sole teacher of a particular subject in school. Here the technological affordances of the online platform, specifically the capacity for removing spatial boundaries and barriers, were extremely helpful. Just as Mawhinney (2008: 196) presents the staffroom as the spatial antidote to teachers' experience of teaching as an "isolating profession", Beth, Ben and Karen spoke of the Facebook group they participated in as providing them with the colleagues they lacked. Although previously the argument outlined in this thesis has presented the staffroom as the spatial model for kinds of discussion spaces that foster collaborative professional development, the empirical data collected in this study suggests that this analogy needs to be re-located. The argument presented by Mawhinney (2010), is that the staffroom operates as a location of informal professional development because it provides opportunities for discussion that result in the sharing of key information and advice, development of understanding of teaching, and provision of emotional and social support. This is paralleled in the comments of the interviewees in this research, who use Facebook groups for exactly the same reasons. However, Mawhinney's (2010) research was conducted within a primary school, which differs from the secondary context due to the lack of separate subject-based departments. Within the secondary school staffroom, teachers from different subjects gather together; the department office is where teachers of the same subject meet to discuss subject-specific practice. Therefore, the subject-specific Facebook groups that the interviewees described in this investigation are closer to the department offices in McGregor's (2003) study of the influence of spatiality on collaboration between teachers in secondary schools than the staffroom in Mawhinney's (2010) research.

For the teachers in McGregor's (2003: 362) research, the department was the "important reference group and source of professional identity" and as such had the potential to function as "a major arena for practice-relevant collaborative work". This echoes the comments made by the interviewees who used Facebook groups to source subject-specific expertise. Mike, Ben, Karen, Neeve and Beth are humanities and technology teachers who are looking for other experts, not just in their subject but also for the specific exam board that they use. They wish to specify as

narrowly as possible to ensure that the resources and advice that they seek have direct relevance to their practice. This tallies with the key finding from Cordingley et al.'s (2018: 2) Rapid Evidence Review of Subject Specific CPD in the UK, which found "subject-specific CPD is more effective, in terms of its impact on pupil outcomes, than generic pedagogic CPD" and suggests that these online spaces have the potential to provide teachers with the professional development that they may lack as a sole practitioner in school. As such, the communities in these spaces could provide the kind of "low-cost self-directed" professional development endorsed by McCulloch et al. (2011:4). One concern could be that these safe bounded spaces on Facebook seem to form the kinds of clusters of social interaction that McGregor (2003: 362) recognised could lead to "balkanisation" and a potential lack of "cross curricular work". Yet, it is precisely this "balkanisation" that participants are finding most useful. Because they are speaking only to a vetted group of expert teachers from their own subject area, this overcomes their concerns regarding sharing professional concerns and information online: the limits of the group form the boundaries that need to be in place for them to be able to participate.

8.2.2 Collapsed and Nested Contexts of Participation

Within Facebook, it is the specific technological affordances of the platform that determine the nature of the groups that participants can create and thus enable their participation. For the interviewees in this investigation, the most important affordances were the function of moderation that allows groups to include only those participants who are seen to belong, and the way that these groups operate as bounded spaces meaning that they are separate from participants' other interactions on Facebook. However, when participants were required to use Facebook to communicate with other teachers outside of these groups, the potential collapse of the personal and professional contexts within the social media space made participation far more problematic.

One issue for interviewees who used Facebook groups was that the professional space was nested within their personal Facebook account. This was unproblematic if their professional participation stayed within the confines of that group, however, for some interviewees it was difficult to maintain strict personal/ professional boundaries within this social media context. Karen and Kara both spoke of the awkwardness caused by a collapse in contexts (boyd, 2010): Karen felt that it "*undermines her credibility*" when colleagues saw her post a question about a job; Kara didn't want her friend to know that she was "*reading up about teaching*". This situation is further complicated because often colleagues are 'friended', or, as within the example of one

school in this study, schools may use social media to communicate with parents and require teachers to participate in this communication using their own, personal, Facebook account. Karen spoke of the difficulty she had in refusing the Headteacher's friend request: "*it's one of those friend requests you can't really say no to*." Ursula spoke of avoiding commenting on the school Facebook page so she could preserve a separation between work and her social media profile.

When personal and professional contexts collapse due to the removal of spatial and social boundaries within the socio-technical context, the only way that participants have of regaining control is by adapting how they choose to participate. boyd, (2010:42), recognised that social media profiles "are a site of control, allowing participants to determine who can see what and how". Teachers such as Ursula therefore carefully negotiate the visibility of their participation in order to manage who sees what. Ursula can participate freely in closed groups but feels unable to comment on the school Facebook page because of the visibility of her profile picture to parents and pupils. She wishes to keep her relationship choices private, therefore she has to manage the visibility of her participation in order to maintain a level of control. This differs from the understanding of non-visible participation in the theoretical literature that positions non-participation as a lack of commitment to the aims of the online community (Preece et al. 2004; Preece & Shneiderman, 2009). Instead, (non)participation, or participation only within a closed group, is a means of maintaining privacy when previously separate private and professional contexts have been collapsed within the social media space.

8.2.3 Controlling Participation within a Public Social Media Space

Another social media space in which participants struggled to gain a sense of control was Twitter. Twitter was mentioned frequently, by participants such as Susan, Sophie and Isla, as a space in which they were able to source useful information and resources; a finding which reflected the empirical literature on the value of Twitter as a professional development space for educators (Holmes et al. 2013; Carpenter & Krutka, 2014) However, in the interview responses, these Twitter users indicated that they were far more likely to read than to comment, and more likely to source resources than to share their own. This preference for non-visible participation was due to the public nature of the space and the potential display of their participation to a large and unknown audience.

For both Susan and Sophie, the lack of control over the audience who witnessed their participation was the main factor that restricted their visible participation. Here the dynamic of the "invisible audience" is a key element of the social media context: the consideration that "not

all audiences are visible when a person is contributing online, nor are they necessarily co-present" (boyd, 2010: 49). On Twitter, the full audience (i.e. including those who may not be commenting but also reading and spectating) is invisible, public and potentially limitless. Contributions could be seen, and therefore judgements about participation could be made, by anyone. Sophie feared the invisible audience, potential conflict and the judgements of strangers, "*I don't want to be in the firing line of anything*"; Susan feared that the invisible audience may have included colleagues who she worked with leading to a collapse in contexts and judgements being made about her professional capabilities, "*I don't know exactly, who is going to be looking at it and what they would be thinking about it".* Therefore, for Susan and Sophie, Twitter is a space in which increased visibility leads to an increased lack of control. The only way for them to manage this is to ensure that their participation is invisible and thus avoid exposing themselves to the judgements of an unknown audience.

However, Twitter is also a social media space in which the scale of the audience provides teachers with opportunities and motivates certain forms of participation. As with Facebook, the scale and number of participants enables a crowd-sourcing of expertise and the creation of resource banks. The public audience on Twitter also enables teachers who perceive themselves as experts to promote their work and increase their own visibility beyond the walls of their own school. Just as boyd (2010: 29) recognises the "networked public" as a space in which there is a "lack of spatial, social, and temporal boundaries", Belk (2013: 486) argues that in the "re-worlding" of online spaces "we experience transcendence of the body, time, and space". In the context of a social media space, the professional identity of the teacher can be extended so that it is visible to others who do not work directly alongside the participant. Harry and Fran are examples of teachers within this research who wished to share their work and extend their professional identities through their participation with Twitter communities online. For these two participants the lack of spatial boundaries and the size of the public audience were affordances that motivated them to post. Harry wished to make his work visible, evidencing online the efficacy of his work in schools in order to document its worth. Fran wished to create a name for herself as an expert teacher and lead practitioner. Both used the public audience on Twitter as a means of making themselves known beyond their immediate physical working environment.

Harry and Fran were also aware that their online participation could be refashioned so that it presented a particular version of their professional identity; creating as, Belk (2013: 488) writes, "a desired … aggregate extended self". Both Harry and Fran used Twitter as a space in which they could present a version of themselves and their work that they wanted others to see and validate. They considered how they wanted to present themselves to their desired audience such as

teachers from other schools, school governors, or future employers, and adapted their participation accordingly. For example, Fran changed her Twitter name to include an acronym stating her new promotion – LP for Lead Practitioner; Harry used his account to present a 'snapshot' of what he does and evidence good use of funding. Harry and Fran perceive the professional benefits of participating visibly in a public socio-technical context, and this gives them a feeling of control (even though, for Fran, the decision to participate in this fashion initially made her feel "*vulnerable*"). Through their participation they have managed to translate their interactions on social media into wider recognition of their work, with both receiving job offers that they directly attributed to their visible public profile.

8.2.4 Anonymity as a Form of Control

One structural feature that seemed to mitigate participants' fears of visible participation, was the potential for anonymous contribution. Whilst anonymity can enable the kinds of social relations that are perhaps less desirable on social media such as conflict and 'flaming' (Baym, 2010: 57), it also has the potential to encourage less inhibited participation (Belk, 2013). This can be seen in the data in Kathy's willingness to ask for advice only when hidden behind an anonymous user name on Mumsnet. In the 'staffroom' space on Mumsnet, the lack of personal and social identity cues created an environment in which confidentiality was possible, and awkward professional questions about specific pupils and issues could be asked. Anonymity was the mechanism by which Kathy could ensure that there would not be a collapse in professional and personal contexts, and thus enabled her to have control over the reach of her participation.

Ironically, it was the use of an anonymous pseudonym that allowed Kathy to share her 'true self' more frankly than in a visible public forum (Belk, 2013). On this social media platform, Kathy was willing to share her expertise and found a community in which her experience and opinions were of worth. Her participation, which was usually reluctant, invisible, and "*semi-detached*", shifted to fit this different context of social practice in which different areas of expertise (the personal and affective) were presented and performed (Dreier, 1999; Pederson & Lupton, 2016). The same factors which had the potential to inhibit on Twitter, such as anonymity and an unseen audience, became motivating factors: anonymity on this platform ensured confidentiality and distance; the unseen audience became a pool of crowd-sourced expertise.

Kathy's response to potential visibility online is in direct contrast to Harry and Susan. Kathy's increased freedom of response when the structures of the social media context grant her invisibility shows how the increased "sense of control" afforded by anonymity lead to her

increased participation. However, it was a desire for control and self-determination over their own careers that lead to Harry and Susan's participation, for which they needed high levels of public visibility. The differences in these participants' responses illustrate the subjective nature of participation: how people will participate in "different ways in different contexts and have different reasons for doing so" (Dreier, 2009: 196-7), and how the same affordances of the social media context can enable participation for some but discourage participation for others.

8.2.5 Participation across Contexts

So far, this chapter has focused on how social media spaces have particular structural affordances and restrictions that encourage or discourage teacher participation; however, these spaces do not exist in isolation and it is important to look now in more detail at how the use of these online spaces overlap with teachers' professional and personal contexts.

This thesis follows Miller et al. (2016: x) in "rejecting a notion of the virtual that separates online spaces as a different world". Social media is another place in which people live and work and is embedded within the contexts of their work and home life (ibid). The use of social media involves choices about when and where the online context is accessed and how it is used. For many of the teachers in this project, the online context functioned as a form of storage. Sometimes this was through the use of filing systems such as Google Drive (Gillian, Karen), or the TES resources bank (Debbie, Natalie), although also teachers mentioned using Pinterest and Facebook to store useful resources for future reference (Natalie, Neeve, Kara). In this sense, the use of social media spaces differs little from any other stock cupboard, except that they are always accessible regardless of where the teachers are physically located.

Yet, just as a resource kept in school would not stay in the stock cupboard, it would be brought out and shared, so too are the resources that are stored within social media spaces. The teachers within this project spoke of how they would take an idea for teaching blackout poetry (Natalie), or a recipe for a food technology lesson (Neeve), and use these ideas and resources with their classes. Another teacher spoke of using Facebook in front of the class as a way of sharing a video and sparking debate (Tamara). These forms of participation are not visible to other participants online, because they have strayed beyond the boundaries of the social media context, however, these are arguably the forms of participation that have the most direct relevance to teachers' professional practice.

The theoretical construct, used in this chapter to show how different contexts intersect to inform participatory choices, represents the social media, professional and personal contexts as separate

but overlapping. It is the participatory choices that teachers make that influence how far one context becomes embedded within another. Literature that considers the social media context, and participation within this context as a separate sphere (e.g. Preece et al. 2004; Stribos & De Laat, 2010), ignores how participation may continue across contextual boundaries. When considered in this way, it is easy to see how the choices made by non-visible participants online may be misconstrued. All of the 23 participants who identified as users of social media for professional purposes in this study spoke of how they used the ideas and resources that they found online within their teaching practice. Those who self-identified as "*lurkers*" (Kathy) or spectators within an online context were still visible active participants once the resource or idea was taken into their classroom space.

The findings of this project therefore identify that teacher participation in social media spaces is a holistic process that happens both online and offline. In line with Hrastinski (2009) and Wenger (1998b), these teachers demonstrate that their professional participation may start online but then it continues across other contexts and spaces. For some of the teachers interviewed such as Mark and Kara, their discussions as a department moved from a social media context (such as a Facebook), to a real-life professional context (the classroom), and then back to a social media context (WhatsApp or Facebook) at the end of the day. The teachers' use of a range of media to host their professional discussions exemplifies Miller & Madianou's (2012) theory of polymedia and shows how we are unable to "understand any one platform or media in isolation. They must be seen as relative to each other" (Miller et al. 2016: x). This thesis therefore argues for a wider conceptualisation of participation that recognises that the structures of online spaces might restrict or motivate certain forms of participation, but a fuller understanding of participation cannot be reached without a wider view of the different contexts and social structures in which participants also live and work.

8.2.6 Summary

The first section in this chapter has considered social media contexts and how the different affordances and restrictions of these spaces motivate or inhibit participation by teachers. I have considered how social media spaces online can operate as communities of support, how collapsed contexts and public audiences can inhibit participation, and how certain structural affordances such as public visibility and anonymity can provide opportunities and motivate forms of participation that would not be possible otherwise. This section finished by outlining how participation within social media is not bounded by the limits of a specific online space but ranges

across real life and online contexts. The next section in this chapter looks towards the professional sphere, exploring the concept of discussion online and how this functions as a form of professional development.

8.3 Discussion and Collaborative Professional Development Online

The argument is this thesis has been predicated on the idea that the interaction that happens between teachers in social media spaces functions as a form of discussion. Yet, the way that teachers discuss online is markedly different from the forms of discussion that happen face-to-face in staffrooms or department offices. As boyd (2010: 9) points out, the digital structures in which these teachers are interacting, are built out of "bits" not bricks, and the "underlying properties of bits … determine what types of interactions are possible, and shape how people engage in these spaces". Contributions online can be made in different media, such as image, video, text or emoji; conversations can be synchronous or synchronous; audiences can be tiny or vast; and often it is not possible to know how many people are engaged in a particular conversation (Crook & Lewthwaite, 2010). A key difference is also that digital conversations are a written record of interaction and, as such, are what boyd (2010: 9) terms "persistent by default". Any contribution to a conversation has the potential to exist indefinitely as a searchable record of participation.

The participant data from this project indicated that discussion in social media spaces can take many forms. The kinds of contributions that most closely match the interaction of spoken discussion, posting comments to homepages, blogs or Twitter feeds, commenting in #conversations, or contributing a lengthier commentary through writing a blog, were also the least popular. Only 25.2% of participants contributed to discussion by posting to a homepage or feed, 22.8% posted comments during scheduled #chats. Far more participants were prepared to engage in conversation through the sharing of resources: 55.3% stated that they uploaded resources, 77.2% downloaded them. From this data, it seems that teachers are far more willing to engage in the professional sharing of ideas through the contribution of a resource than an opinion. Essentially the swapping of resources operates as a form of knowledge sharing; a practical and tangible way of sharing ideas.

8.3.1 Cumulative Conversations

Resource-sharing 'conversations' are valued by teachers. The teaching resources are perceived as *"useful" (Isla), "helpful" (Ursula, Sophie), "a real life-saver" (Mike)* and those who post are seen as contributing their hard work and effort for the greater good: they are "*really generous*" (Mike) and are sending "*a little bit of love out there*" *(Sophie).* This perception of the value of resource sharing as a form of professional interaction is also present in the literature. Bissessar (2014: 121-

125) documents the "like-minded kinship" created in these kinds of social media groups and the "self-directed, autonomous" professional development that results. This is a rhizomic view of professional development: of "knowledge created by a broad collection of knowers sharing in the construction and ongoing evolution of a given field" (Cormier, 2008: 3).

As a form of discussion, this kind of non-hierarchical knowledge sharing is cumulative. It leads to the literal accumulation of banks of resources online and also to the kinds of cumulative conversation in which participants "build uncritically and positively on what others have contributed" (Littleton & Whitelock, 2005: 8). Interviewees stated that they were reluctant to comment critically or give feedback on the resources that they had downloaded because they saw that contribution to the discussion as an altruistic gesture. As Karen stated *"whoever's put that in there … has shared it, and that in itself is a really kind thing to do".* (However, it is interesting to note that when participants paid for resources, they felt more empowered to give feedback). If these discussions are functioning as a form of professional development, this uncritical stance is problematic. As Timperley et al. (2007) note, an element of critical engagement with content is essential, and this is not possible if resources are just being accumulated without reflective discussion and feedback on the quality of the work. There is the potential here for resources and ideas to be shared that are under-developed, erroneous or wrong. Some resources are being made by teachers who have less experience, but more time, such as the pre-service teacher who had shared the computer science scheme of work in Gillian's interview. Furthermore, the products are being downloaded by teachers who are behaving as consumers; resources are downloaded quickly (within Gillian's interview a scheme of work consisting of multiple files had been requested within 4 minutes) and participants just "*take 'em and leave" (Susan)*.

The lack of reflection identified by participants was not restricted to the sharing of resources, it was also a factor in the reluctance of participants to share their views on Twitter. Both Kathy and Sophie identified that the structural restrictions of the social media space, the 140 or 280 character limit, the invisible audience, and rapidity of conversations that can result from interaction with numerous participants, removed the potential for reflection. Sophie wanted to be able to "*ponder*" in a way that only seemed possible in "*one-to-one conversation*"; Kathy preferred to "*come to my opinions through conversation in person*". Kathy identified that the use of social media as an on-demand repository of ideas and information was leading to a culture of uncriticality in her leadership team. A colleague had told her, "*you should do Twitter, it is like someone has done your thinking for you*".

The potential for social media spaces to function as an uncritical space where all ideas are equally weighted and the worth of a contribution is judged by the generosity of the gesture, rather than the quality of the resource, is a concern. However, it would be a mistake to judge all conversations that are cumulative in nature as lacking in value. In research into the chat-room interactions of Masters students, Littleton and Whitelock (2005) found that:

> *"students are potentially able to actively construct knowledge and understanding through discussions with their tutor and peers - ideas are shared with others and built upon through their reactions and response" (4)*

This has a parallel in the responses of interviewees who frequently stated that they had a more developed understanding of specific elements of the exam specification (Karen), course content (Ursula), or pedagogical approaches such as revision (Isla) as a result of participation in their subject-specific Facebook group. Another way that cumulative conversation can function is as a way of giving and accessing support. (Littleton & Whitelock, 2005; Bissessar, 2014; Harn, 2017). Participants such as Karen, Kathy and Mike, received a sense of support from being part of a community: it mitigated a sense of isolation and enabled them to seek advice. Cumulative interaction can be a way of "establishing common ground between the participants" and can also be "a 'way into' investigating ideas through and in interaction with others" (Littleton & Whitelock, 2005: 20).

8.3.2 Criticality across Contexts

Most pertinently for this project, it is important that the uncritical nature of the discussion online is not taken as a proxy for uncritical engagement with the resource material overall. Participants may be visibly participating in an uncritical manner within that social media space but this does not mean that they are not engaging in a critical process. Some of the most popular forms of contribution to discussion mentioned in the data were to validate other people's posts through retweeting or liking (69.9%), or to participate invisibly by reading posts or blogs by others (77.2%). These forms of participation seem minimal but could represent a form of engagement where participants "learn vicariously, by observing other people's discussions" (Littleton & Whitelock, 2005: 4). This matches Hrastinski's (2008) definition of participation as "vicarious learning" (1760) and lends value to the kinds of professional development that can happen through reading and listening rather than voicing opinions. Sophie and Debbie identified this process in their

comments on the 'voyeuristic' nature of their participation. Maddie mentioned how reading about what other people do on teacher polls helps her to "*reflect on what we do here*".

Furthermore, as Reda (2009: 7) identifies, "there are multiple causes at play" in a participant's decision about whether to speak out or not and for teachers participating in digital discussion spaces some of these are attributable to the dynamics of the social media space (such as a fear of judgement from an unknown audience), or the expectations attendant to their professional position (such as school guidelines on social media use). For many of the participants in this project, their initial contributions to discussion within the social media space seemed minimal, but their engagement continued across contexts. For example, Isla and Susan do not share their own resources, or comment on the quality of those that they download, but they do take and trial new ideas and resources from others and adapt them for the needs of their pupils. This is a critical process in which they are reflecting on the suitability of new approaches for their own teaching and is similar to professional development action research models (such as Timperley et al. 2007) that encourage the trialling of new approaches and reflection on impact and efficacy.

Participation in discussion spaces online may seem uncritical if taken at face value, however, it is important that the dynamics of discussion are not bounded by the limits of the social media space. The discussions that teachers were engaging in online were also being taken offline and continued across contexts, they could not be understood by looking at their contributions in one context alone. This chapter will now take this more holistic understanding of discussion and relate it to the literature to consider how these conversations fit within current conceptualisations of collaborative professional development.

8.3.3 Social Media Participation as Professional Development

Initially, this thesis framed the kinds of professional conversations that are happening within social media spaces as similar to those that teachers have in the staffroom (Mawhinney, 2010). Whilst the subject–specific discussions of the department office may be a closer analogy, it is clear that teachers are gaining the professional value from these conversations that Mawhinney (2010) presented. Through discussion with other teachers online, participants are sharing key information and advice, developing their understanding of teaching and receiving emotional and social support (Mawhinney, 2010).

The findings of Waring & Bishop (2010) on the value of informal knowledge sharing in surgery units also seem to hold when compared to the responses of the participants in this investigation.

Waring & Bishop (2010) write of how the congregational spaces found in corridors, water-coolers and other locations at the "margins of the workplace" (337), become sites for "knowledge sharing" (326), and the sharing of "collective experiences" (338). These informal opportunities for discussion mirror the kinds of conversations that teachers are having in social media spaces. The sharing of ideas and swapping of resources spoken about by Karen, Ursula, Mike and Isla, or the sharing of experiences and advice narrated by Kathy, Ben and Denise.

Although these conversations are happening informally, and in liminal social media spaces that are not part of the school's CPD provision, the findings from this project indicate that kinds of interaction that are happening within these spaces have the potential to support teachers in their professional development. The DfE's (2016b: 3) Standard for Teachers' Professional Development summarises the UK government's expectations for teachers as follows:

> "The Teachers' Standards set out a number of expectations about professional development; namely, that teachers should:
>
> • keep their knowledge and skills as teachers up-to-date and be self-critical;
>
> • take responsibility for improving teaching through appropriate professional development, responding to advice and feedback from colleagues;
>
> • demonstrate knowledge and understanding of how pupils learn and how this has an impact on teaching;
>
> • have a secure knowledge of the relevant subject(s) and curriculum areas;
>
> • reflect systematically on the effectiveness of lessons and approaches to teaching; and
>
> • know and understand how to assess the relevant subject and curriculum areas."

The interactions between teachers on social media do not completely fulfil all of these expectations, nor could they, as they are often located in a separate context from the professional space in which teaching and learning happens. For example, "reflecting systematically on the effectiveness of lessons" (DfE, 2016b: 3) relies on a teacher having taught a lesson within a school context. However, the responses of interviewees in this investigation indicated that their social media use made a helpful and, sometimes essential, contribution towards meeting these standards.

For the participants who were experiencing a change in the qualifications that they taught and assessed (Ben, Denise, Isla, Karen, Maddie, Mike, and Ursula), the resources, advice and guidance they received on social media were "*really really useful*" (*Karen*). These teachers felt that they had

been de-skilled by recent shifts in course content and assessment: they spoke of how they were "*flying by the seat of my pants*" (*Ben*), how "*none of us really know what we're doing" (Karen)*. For these teachers, they met the standards of keeping "their knowledge and skills as teachers up-to-date" and having *"*a secure knowledge of the relevant subject(s) and curriculum areas*"* (DfE, 2016: 3) through participation within social media. Some participants spoke of how participation online plugged the gaps in subject knowledge that official guidance had failed to fill. Karen spoke of how the textbook she had been provided with by the exam board arrived late "*two years into the course*" and lacked content "*[In] the textbook, there was about half a paragraph and in the exam, the question … expected fifteen marks*". Ursula spoke of her need for model answers *"because the exam board haven't provided us any"*. Faced with a situation in which the usual pipelines for subject knowledge were not delivering the information that they needed, these teachers went "*rogue*" (*Karen*) and crowd-sourced the information from each other. As stipulated by the DfE (2016b: 3), these teachers were "self-critical": they were aware that their curriculum knowledge was not "secure"; it did not meet the needs of the pupils that they taught. This was their motivation for joining the social media community. It is interesting to note that participants who participated in subject-specific and exam-board specific Facebook groups spoke of these as emerging within the last couple of years: *"this page didn't exist before the new spec" (Isla).* The emergence of these groups seems to have paralleled the introduction of the new GCSEs at Key Stage 4 and therefore suggests that teachers have used social media to support them in developing their subject knowledge at a time of change.

Another way that teachers' use of social media meets the expectations of the DfE for professional development is in the way that these spaces are used to "know and understand how to assess the relevant subject and curriculum areas" (DfE, 2016b: 3). Isla, Ben and Denise all spoke of how the social media communities provided them with guidance in this area. Isla spoke of sharing pupil work and moderating online; Ben spoke of accessing mark sheets for coursework; Denise discussed how she accessed advice on how to deal with the removal of Non-Examined Assessment when it was removed as an assessed part of the course mid-way through the year. All of the teachers who used social media were meeting the DfE's (2016b: 3) standard of taking "responsibility for improving teaching through appropriate professional development, responding to advice and feedback from colleagues"*.* What is notable is that they were all taking responsibility for improving their teaching, subject knowledge, and understanding of assessment, as individuals, crowd-sourcing support and guidance from each other. The social spaces that teachers participate in seem to have been "*incredibly helpful*" (Isla), but it is concerning that the expectations and standards of the DfE are applicable to the individual, when the problem seems

to be structural in nature. If these teachers have all turned to social media to fill gaps in their professional knowledge, it suggests a lack of professional guidance from elsewhere. Whilst social media has a role to play in supporting the professional development of teachers, it is alarming if, as some of the participants seem to suggest, it is the most reliable avenue they have for getting the knowledge that they need.

8.3.4 Collaborative Professional Development Online

In Cordingley et al.'s (2003: 2) review of collaborative CPD, the process is defined as: "teachers working together on a sustained basis and/or teachers working with LEA or HEI or other professional colleagues". As mentioned in the literature review, this definition is loose and if simply categorised in this manner then any form of regular participation with other teachers in social media spaces would qualify.

An alternative way to conceptualise the interaction that is happening in social media spaces is as a form of distributed cognition and shared expertise. This is a view of collaborative professional development presented by Timperley et al. (2007) in their Best Evidence Synthesis of Teacher Professional Learning and Development.

"It [teaching] usually requires information, expertise and support far beyond the resources available to the individual teacher working alone in an isolated classroom. Teachers who collaborate with their colleagues are more likely to be effective with students, because they will benefit from expanded resources. (Newmann, 1994: 1, cited in Timperley et al. 2007: 202)

This more nuanced view, that collaboration expands a teacher's expertise and mitigates isolation, was supported by the interviewees in this study. For participants such as Beth, Karen, Natalie and Susan, social media was a source of resources and expertise that they turned to because either they were the only subject specialist in their school (Beth, Karen), they lacked opportunities for collaboration with colleagues (Natalie), or they did not want to turn to others to ask (Susan).

Alternatively, the core features of collaborative CPD identified by Cordingley et al. (2003: 5) that were linked, in combination, to positive outcomes include:

- "the use of external expertise linked to school-based activity;
- observation;
- feedback (usually based on observation);
- an emphasis on peer support rather than leadership by supervisors;
- scope for teacher participants to identify their own CPD focus;

- processes to encourage, extend and structure professional dialogue;
- processes for sustaining the CPD over time to enable teachers to embed the practices in their own classroom settings."

Whilst, Cordingley et al. (2015: 8) are careful to clarify that no "single form of activity" is shown to be "universally effective", it is worth considering how the features listed above relate to the kinds of participation discussed by participants in this project in order to consider how the participation of teachers online is functioning as a form of collaborative CPD. It is clear from the responses of the interviewees that all of those who participate online are using it as a way of accessing "external expertise" (Cordingley et al. 2003: 5), that they can then put into practice in their classrooms. This expertise is usually a form of "peer support" (ibid) rather than official guidance. Whilst some participants mention the contributions of representatives from the exam board (Mike), or teachers working as examiners (Karen), this is within a context in which knowledge is being crowd-sourced rather than disseminated.

Participation on social media also provides teachers with autonomy, the "scope to identify their own CPD focus" (Cordingley et al. 2003: 5). This professional agency is an important part of teachers being "adaptive experts" (Timperley 2011: 6) and taking "responsibility for their own professional development" (DfE, 2016b: 11). In Timperley's definition, adaptive experts know when, where and how to seek out help, new learning experiences, and knowledge. The teachers interviewed in this study demonstrated similar initiative. They sought out social media spaces that met their professional needs and participated in order to find solutions to the problems they were experiencing. However, it needs to be questioned whether this was a demonstration of autonomy or whether teachers were responding to the demands and constraints of the professional situation that they found themselves in. If the majority of the teachers who use social media are turning to these spaces to find resources (94% of respondents to the questionnaire; 20 out of 26 interviewees) then this may point to a lack of resources in schools. If the eight interviewees who spoke about experiencing changes in examination boards are all using social media for advice and guidance, then this could imply a lack of guidance from elsewhere.

Participation within social media spaces is providing opportunities "to encourage, extend and structure professional dialogue" (Cordingley et al. 2003: 5), although, as discussed in the previous section of this chapter, this discussion differs from discussion in person: it is multi-modal and can take the form of resource sharing. It can be cumulative in nature and can seem to lack criticality unless the wider reflective processes that extend beyond the social media context are also considered as part of the interaction. It is important that this part of the discussion process is

included within an understanding of the professional development that happens through participation in social media spaces, for it is the participation across contexts that enables "teachers to embed the practices in their own classroom settings" (ibid). The process that Isla, Susan and Natalie speak of in their interviews, of taking a resource and adapting it to the needs of their class, is a process of taking new knowledge and embedding it in their own classroom setting. All of the teachers interviewed who used social media were engaged in this process. They turned to social media for inspiration, clarification, resources or guidance, but always with the needs of their professional context in mind.

The report 'Tweeting for Teachers' by McCulloch et al. (2011) recognises the potential that social media spaces have for functioning as a site for collaborative professional development. It states that:

> "Using emerging technologies and social media tools, teachers are beginning to take control of their own professional development, finding new ways to learn from each other, to reflect on their own practice, and to develop learning and support networks of like-minded professionals all over the world." (McCulloch, 2011: 4)

This report also identifies other key benefits of collaborative professional development online that are harder to enact within a school context such as "keeping up-to-date with current debates in a way and at a time that suits them" (McCulloch et al. 2011: 8). This was a view supported by Denise, who preferred to conduct her CPD at a time of her choosing, "*when I have got a couple of minutes to have a quick look, that's better for me"* and by Beth, who accessed her Twitter feed, "*while I'm waiting for the train to turn up*". The report also states that practitioners can draw on "ideas from around the world", connecting with "others in similar positions in order to share plans and approaches, and for support and reassurance*"* (ibid). This presentation of the opportunities that social media can provide was demonstrated in the interviewee's responses: Beth and Denise both interacted with "*staff around the world*" (*Beth*), others such as Maddie, Kathy and Isla used social media to find support and reassurance.

8.3.5 Summary

Whilst the McCulloch report (2011) acknowledges the potential that social media spaces have for collaborative professional development, it does not fully address the complexities of participation. McCulloch et al. (2011:34) acknowledge that *"*social media will not provide a silver bullet. Engaging with colleagues in this way can be frustrating, time-consuming and demanding".

They recognise that “social media blur the boundaries between their personal and professional lives”, and that there is a possible effect on work/life balance (McCulloch, 2011: 8). However, this caveat is quickly brushed aside: “challenging yourself, or being challenged by others, on the way you approach teaching and learning is not for the faint-hearted” (McCulloch, 2011: 34). The findings from participants in this project show that the issues surrounding participation on social media cannot be ignored. New ways of working online have unintended ramifications for teachers’ workload and work-life balance. Teachers are negotiating forms of participation that they find overwhelming and unmanageable and often find that the simplest solution is to stop engaging with professional development in social media spaces at all. Unless these issues are fully considered and examined then the “rich rewards” (ibid) offered by social media will remain inaccessible for many teachers. A discussion of these issues and the consequences for participation forms the body of the next section of this chapter.

8.4 Dynamics of (Non)Participation

In the interviews for this project, teachers presented their participation within social media spaces as a negotiation between the needs and demands of different contexts. As Miller et al. (2016) argue, social media spaces are now places in which we both live and work, and the kinds of interactions that happen online have removed the separation between the two. Yet, although social media are embedded and inseparable within people's home and work contexts, participants in this investigation expressed that the allocation of time and effort to discussion within social media spaces involved taking that time from elsewhere in their personal and professional lives. Understanding participation in this fashion, as a decision-making process involving the allocation of finite resources, problematizes simplistic views of participation in online environments. The reasons that sit behind (non)participation cannot be understood unless the other needs and demands of an individual's lived and worked lives are taken into account. The discussion that follows in this chapter will start by considering the wider context of teacher workload and how social media use can act as a form of 'digital labour' (Rensfeldt et al. 2018). I will then return to the central issue of participation and consider how the voices of the participants in this project present (non)participation as a complex process that "can only be understood be understood through its inter-relationships with other contexts in the structure of social practice" (Dreier, 1999:7).

8.4.1 Teacher Workload

The issue of teacher workload is well-known and widely recognised. The OECD TALIS survey conducted in 2013 found that teachers in England are working, on average, longer hours than in most other jurisdictions: "48.2 hours in the sampled week, including evenings and weekends"; "19 per cent longer than the average elsewhere of 40.6 hours" (Sellen, 2016: 7). These additional hours are not being used for teaching; the time spent teaching lessons is "around the average". Instead, this is time spent on "planning lessons, writing assessments, marking and other functions" (ibid).

In response to the findings from the TALIS survey, the DFE conducted a workload survey in 2014. This survey also found issues with workload, with almost a third of part-time teachers, and a quarter of full-time teachers working 40% of their hours outside of school hours (DfE 2017), and an average of 33 working hours spent on non-teaching tasks. The DfE survey also found that the majority of this time was spent on "individual planning or preparation of lessons", "marking/correcting of pupils' work" and "general administrative work" (DfE 2017: 9).

The findings of the DfE and TALIS surveys present a working landscape where work schedules are "hindering teachers' access to continuing professional development" (Sellen 2016: 7). This was also a view expressed in the data for this project. Participants spoke of restricting their participation within social media spaces for professional development purposes because of "*the time pressures of the job*" (Mike), how there is "*no time allocated in school*" (Beth), or because "*work has enough of me*" (Kathy). However, the landscape presented in the DfE and TALIS surveys might not be the full picture. The CPD referred to in the TALIS survey includes courses, observational visits, seminars, qualifications and in-service training (Sellen, 2016). The TALIS survey did not include digital participation such as use of email or management of a school social media account as part of the working practices of teachers within the dataset. Nor did it include social media participation within the CPD opportunities measured.

The use of online communication or social media was not mentioned either in the DfE survey (Gibson et al. 2015) or the action plan that followed in 2017. This has meant that the effect of digital working practices and the use of social media in the workplace remains unmeasured in workload surveys and undiscussed in government policy. The findings from this project indicate that this is an area that teachers can struggle to cope with. For example, the expectation that teachers will contribute to the running of school and department social media accounts has meant that teachers have to include this administration within their working day. The interviews from participants such as Tamara, Kathy and Beth illustrate how the notifications that result from the use of professional Twitter accounts can be "*intrusive*" (*Kathy)*, overwhelming, and difficult to manage.

Whilst the report from McCulloch et al. (2011) recognises that social media use can be "time-consuming", the TALIS survey presents the use of ICT in schools and teachers' proficiency in using technology as something that can reduce additional workload (Sellen, 2016: 10), although the definition of ICT use in this survey is not clear and may not include online media. This ambiguity was also present in the data from participant interviews. Participants in this project used social media to address the two most significant issues raised in the DfE (2016: 6) survey: to lessen the workload involved in the "planning or preparation of lessons" and in the "marking/correcting of pupils' work". When participants used social media to source resources, this was often a way of avoiding "*reinventing the wheel*" (Natalie, Ursula). By asking other teachers to share the resources they had made, they could avoid making the documents from scratch. Similarly, when the participant teachers in this project asked online for grade boundaries, spreadsheets or advice on judgements of pupil work, this saved them having to repeat the work themselves. When viewed this way, social media use does seem to be a "silver bullet" (McCulloch et al, 2016: 34), that could

solve workload problems through the simple swapping of resources and collaborative working practices.

However, there is a danger here that social media is being used to provide a temporary solution to a more persistent problem. In the document on 'Eliminating Unnecessary Workload around Planning and Teaching Resources' (ITWRG, 2016: 5), the independent teacher review group tasked with investigating the issue state that "teachers spend an undue amount of time planning and resourcing lessons", and seem to have an:

> "underlying mistrust of textbooks, related to notions of professionalism which assume it is more professional to trust a random resource, downloaded from the internet after many hours of searching, rather than a carefully curated, fully researched textbook" (ibid, 9).

This can be seen in the data in the responses from Susan who spends her Sunday afternoons planning, making sure that each resource she takes from social media is then adapted for the needs of her class. It can also be seen in Natalie's use of the TES and Teachers pay Teachers so that she can avoid "*making everything from scratch*". It is evident in Mike's use of Schoology; Ursula's sourcing of exam booklets from Facebook; Isla's adaption of revision activities sourced online. Yet, there is an implication in this statement from the planning workload document that the root of the problem lies in teachers' misplaced "notions of professionalism" (ITWRG, 2016: 9), rather than in the availability of the "carefully curated, fully researched textbook" (ibid). For, whilst "high quality resources, including textbooks, can support teaching, [and] reduce workload by teachers not having to 'reinvent the wheel'" (ITWRG, 2016: 5) the teachers in this project did not seem to have access to them. Karen, the teacher who did speak of having access to textbooks, found them inadequate for her needs and turned to a Facebook group to supplement her resources. The issue is compounded by the introduction of new GCSE specifications[5] that render teachers' resources from previous years unusable, and funding issues (Andrews & Lawrence, 2018), which mean that schools may not have the budget to purchase copies of "externally produced and quality assured resources, such as textbooks or teacher guides" (ITWRG, 2016: 12).

Whilst it is commendable that the issue of teacher workload is being investigated and discussed at policy level, there are still large gaps both in the workload that is being recognised as work, and

[5] See https://www.gov.uk/government/publications/gcse-changes-a-summary/summary-of-changes-to-gcses-from-2015 [Accessed 25 October 2018]

the solutions that are being presented. Digital labour and the place of social media in teachers' working lives, is another one of these gaps and therefore the next area for discussion.

8.4.2 Digital Labour: Resource Sharing

Much of the literature surrounding the professional use of social media presents it as a "relatively beneficial and uncontroversial aspect" of individual's working lives (Rensfeldt et al. 2018: 1). Participation in social media is recognised as having become part of the daily life of many teachers, and online networks and communities are presented as offering these teachers resources, knowledge and support that would otherwise be difficult or impossible to access (Macià & García, 2016). However, these forms of technological engagement can also be disadvantaging, exploitative and disempowering and "rarely, if ever, are teachers' professional uses of social media groups considered as a form of work" (Rensfeldt et al. 2018: 2).

For many teachers, including the participants in this project, the principal means of participation is through "organised 'teacher communities'" (Rensfeldt et al. 2018: 1) within social media such as Facebook groups, Twitter, Pinterest, or resource sharing websites such as the TES or Schoology. These online groups are now an "an integral element of many teachers' professional development" (Rensfeldt et al. 2018: 1-2), but they also rely on a sense of altruism and community spirit*, "*with social media users constituting a 'voluntariat' that works for free, supposedly for the public good" (Rensfeldt et al. 2018: 3). This altruism is recognisable in the language of 'sharing' that runs through the participant interviews, "*it's just been incredibly helpful, because what it does is it shares"* (Isla); in Mike's sense that it is "*only fair and equitable*" to upload his work; in Natalie's reluctance to criticise because she is being offered something "*for free*".

Definitions of 'virtual work' and 'digital labour' (e.g. Scholz, 2013; Bucher & Fieseler, 2017) point to new forms of "distributed and fragmented work" associated with internet practices (Rensfeldt et al. 2018: 3). This micro-work is shared through the co-ordinated efforts of dispersed individuals (ibid) and is not always recognised as work even by the participants themselves. Nonetheless the "objects of labour", the resources, advice, guidance and knowledge being shared, are being "derived from teachers' own professional experiences" (Rensfeldt et al. 2018: 5). The workload that surrounds the sharing of resources online was made clear in interviews with Gillian and Kara. Gillian's refusal to share her resources online was partially due to the burden of having to respond to email requests from other teachers, and also the lack of recognition for her efforts from others

who "*just take all of your hard work*". Kara stopped sharing when another teacher "*ripped off one of the lessons that I'd posted online*". Both of these teachers offered their work for free and stopped when they felt that the response of others lacked gratitude, the appropriate response when work is offered as a gift, for free.

The ethics of altruism that surround resources sharing online can be problematic. Whilst teachers like Natalie, Tamara, Isla, Neeve and Ursula benefit from the community-minded resource sharing that is prevalent on social media, this may also have led to a culture of uncriticality online. Rensfeldt et al. (2018: 19) warn of the "longer term implications" that these practices might have for "diminished professionalism and expertise of teachers", and the interviews from Dawn, Gillian, Kara, Karen and Natalie echo their concern. Natalie and Karen raise the issue of criticality as they are unwilling to give feedback on a resource that has been shared for free, feeling that it is "*not really my place*" to have that kind of "*open critical discussion*" (Karen), "*if something is offered to you for free, it is very difficult to go and criticise it*" (Natalie). Yet the resources shared online are not always of good quality. Dawn states that they are outdated, "*things that I've seen years ago*"; Gillian shows how the scheme of work shared was produced by a trainee but was requested by 300 other teachers.

There is a tension here between the perception of participation as a voluntary and empowering form of self-expression and creativity (Lindgren, 2017), that contributes to a "collective intelligence" and enables the creation and sharing of knowledge between teachers (Macià & García, 2016: 292), and the potential for resource sharing to operate as a form of piecemeal digital labour that transforms teacher's work into "unpaid online labouring" (Rensfeldt et al. 2018: 4). Most of the interviewees in this project spoke of benefitting from the resources they received and did not see their participation on social media as work. However, these forms of participation are extra, they are not recognised as work by the schools that the teachers are employed by, and therefore happen in addition to the other elements of a teachers' workload. This is an aspect of participation that teachers recognise when they make the choice to contribute: they are participating in role as a teacher, and contributing to the work and development of others, but the time and effort that is involved in doing so is not recognised or rewarded within their own professional context as work.

8.4.3 Digital Labour: When and Where Teachers Work

Another form of digital labour that participants felt was not recognised by schools as work was participation in school and department social media accounts. Whilst these tend to be used for communicative purposes (for example, with parents or pupils) instead of spaces for professional development, the maintenance of these accounts has become part of teachers' daily working practices and were discussed as part of teachers' professional social media use during interview (Kathy, Beth, Karen, Maddie, Tamsin, Ursula). The use of school social media accounts and the impact that these have on teacher workload is currently undocumented in the literature, but it is clear from the responses of participants in this project that the wider issues that surround the collapse of contexts (boyd, 2010) and the unrecognised status of digital labour apply (Rensfeldt et al. 2018).

When using social media accounts for school purposes, or for professional development purposes, participants are in role as teachers, communicating with others in a professional capacity (Wenger, 1998b; Hrastinski, 2009). The unspoken expectation is that teachers will include this additional duty as part of their work. However, only 11.5% of questionnaire respondents indicated that they used social media during the school day, and this was spoken about as a "*grey area*" (Debbie) in interviews. None of the teachers spoken to in interviews were aware of any guidelines in place to support or clarify the use of social media for professional development purposes in school. The absence of guidance in school policy reflects the absence in UK national policy. For those teachers who are uncertain of how to use social media, such as Gwen, the lack of guidelines can be a barrier to participation. For teachers who already participate, the lack of clarification means that the use of social media is tacitly acknowledged as an unacceptable practice during work time and is pushed to the edges of the school day, into evenings, weekends or holidays. This was illustrated by Kathy's narration of late night tweet notifications "*around the 11 o' clock slot*"; Fran's conscious awareness that if she uses social media at work then "*I'm not doing my job as effectively as I should be"*; and the use of Twitter accounts in the middle of the night because there is "*no time allocated for this in school*" (*Beth).*

Social media is therefore something that is used for professional purposes, but during teachers' personal time. The collapse of contexts that social media spaces enable by crossing the traditional spatial and temporal boundaries of when and where work can be performed (boyd, 2010) means that there is now "no moment, place, or situation now exists in which one cannot … consume, or exploit networked resources" Crary (2013: 30–31). In this project, teachers were aware that the boundaries of work and home were being blurred by social media use: they spoke of *"24-hour*

access" (Beth), *"24-hour pedagogy"* (Mark), and how *"we've lost borders and boundaries, everything is seeping into everything else"* (Tom).

8.4.4 Non-Participation

Against the complexity of social media use within this professional context, a teacher's choice not to participate is more nuanced than a lack of altruism or sociality (Preece et al. 2004). If the opportunities for professional use of social media are not provided at work, then this is a form of participation than needs to happen within at home. The participants who chose not to engage with social media, or who chose to stop their social media use, referenced the need for the re-establishment of boundaries between home and work as the driver for this decision. This was referenced in Tamsin's refusal "*to let work interfere with work and family*"and Mary's need to keep "*my weekends as my weekends"* because *"with a really young family, I don't work at home"*.

These were also the two participants who spoke of having their professional needs met within their school context: Tamsin saw CPD as a "*massive priority*" in her school; Mary was able to get the advice and guidance she needed from her local colleagues at sports fixtures. Dawn, another teacher who stated that she found discussion on Twitter less useful, accessed her CPD through her network of friends and colleagues. Whilst these three participants constitute a small sample, it is interesting that their access to support in person meant that they did not feel the need to participate online. Within the TALIS survey, England ranked 30th of 36 jurisdictions in terms of the average number of days invested in CPD (Sellen, 2016: 7). This raises the question of whether the lack of time invested in CPD by schools is a contributing factor to teachers' need to seek out professional development opportunities within social media spaces. The answers to this sit beyond the scope of this study, but it is a potential direction for future research.

What is evident from the findings of this project is that participation carries an opportunity cost that is often enacted at the expense of participants' personal time. The findings of the TALIS survey indicated that teachers who exchange teaching materials with colleagues worked on average 2.8 hours a month, or 4.4. hours a week longer. The survey found that this "approach is taken as a way of collaborating to improve learning by those who are willing and able to add it to their schedule" (Sellen, 2016: 40). The implication here is that this kind of collaboration is only possible when teachers are prepared to volunteer their time to make it happen – a version of Shullenberger's (2014) willing voluntariat, who work for free, for the wider professional good. The teachers in this project who chose not to commit time and effort to discussion online understood this and made the deliberate decision to stand aside.

Non-participation should not therefore be interpreted as a lack of ability to participate, or even a lack of willing. As Dreier (1999: 7) argues, "a critic does not stand outside all social practice but participates in a particular way". The participants in this investigation who chose not to use social media, were critical of what social media had to offer (Bruce, Gwen), the consequences of use (Tom), or of the expectation that they would volunteer their own time to learn how to participate (Bruce, Gwen). These reasons indicate that non-participation can be a deliberate choice that rests on the balance of contributions that participants make to the different personal and professional contexts of which they are a part. Gwen chose not to use social media because she felt that her busy school timetable already asked enough of her; Bruce chose not to participate because he felt the "*chasm*" he would have to jump to learn how to use it was too wide; Tom felt that the digital was intruding into his personal life. These participants indicate that there are multiple causes and issues at play; it would not be possible to read these reasons just from their participatory silence alone. Instead, to understand the complexity of non-participation it is necessary to "consider subjects as particular parts of social practice and come to understand them by asking what it is they are a part of and how they take part in it" (Dreier, 1999: 6)

8.4.5 Summary: Participation in Social Media Spaces

Overall participation in any form, whether it is visible, non-visible or non-participative, is a choice that is made with all of a participant's contexts of social practice in mind (Dreier, 1999). For teachers, participation within social media spaces for professional development means the maintenance of their professional role as a teacher whilst interacting within an online socio-technical context of action, often during their personal time. It is therefore a complex process, in which the needs and demands of the different contexts can influence the forms of participation that a teacher feels able to enact. Participation, when viewed as a response to multiple, inter-related contexts, is not a fixed choice that can be defined in a typology (Preece et al. 2004) or tracked in a linear progression towards full assimilation in a community (Lave & Wenger, 1991). It is flexible, varied and responsive. The snapshots taken of the participants in this project represent a participatory moment in time and are capable of changing overnight in response to the "practical complexity of persons' lives" (Dreier, 2009: 197-198).

This complexity is not visible from one perspective and cannot be seen when looking at the social media platform alone. The non-visible participation of teachers in this project, such as the reading of blogs and discussions, or the downloading of resources, often constituted a process of doing, thinking and talking that happened when trialling ideas and resources within a school context.

This matches Hrastinski's (2009) wider conceptualisation of participation as a holistic process. The thinking and learning continue across the personal context where the teacher might be located, the socio-technical context where the resource might be accessed, and the professional context where the idea is trialled with pupils or shared with other teachers.

Yet, when using social media in a professional context, teachers can find that they lack or lose control over certain aspects of use, such as the size of the audience, or when social media can be used. The forms of participation that teachers choose to enact are often a means of regaining control or negotiating the needs of multiple contexts. For example, the choice not to participate visibly online may be due to a fear of judgement, a need for privacy, or a lack of time. It does not necessarily represent a lack of engagement, reflection or willingness to learn (Reda, 2009). (Non)participation is therefore a complex, subjective, negotiated process that is enacted in response to the needs of different social contexts of action. These contexts can be online and off-line: in their working lives teachers access a range of embedded online contexts for collaborative purposes. These social media spaces are therefore functioning as an inter-related professional context, in which teachers participate as part of their work, rather than a separate space.

8.5 Limitations

Whilst this study has been successful in accessing a range of views from both participant and non-participant teachers on social media, there have necessarily been some limits to the scope of the research undertaken. These have partly been due to my capacity as an individual researcher and partly to the need to demarcate certain parameters in order to provide a clear focus for the research.

The choice not to narrow data collection to a single social media space (such as Facebook or Twitter) enabled me to access a fuller picture of teacher's polymediated approach to their participation on social media. However, the choice to investigate individuals' participation across multiple platforms meant that the number of individuals had to be more limited – a focus on depth of understanding of individual participation meant that breadth (the number of participants) had to be more circumscribed. Whilst the use of an initial questionnaire helped to establish a broader landscape of use, the findings of this thesis relate to the participation of the 230 questionnaire respondents and 26 interviewees. Their contributions have a wider applicability and relevance to the experiences of other teachers, but ultimately are a record of their own subjective participatory experiences. A follow up study that widens the breadth of participants and applies the theoretical construct of this thesis to new contexts is now needed. As this study focused on secondary school teachers in the UK, future avenues for research could explore the participation of primary school teachers, or teachers working in other contexts internationally.

Similarly, whilst data about age, gender and length of service were gathered, these data were not fully interrogated in this study. Fox & Bird (2017) have suggested that there may be correlations between age and social media use, or the length of time that teachers have been practising educators. Further exploration is needed to establish whether these are factors that make a difference to teacher motivations and barriers to participation.

It also needs to be borne in mind that this study is located in a specific temporal and professional context. The teachers interviewed had recently experienced curricula change at GCSE and their participation on social media was made in response to the needs and demands of the new specifications. It would be interesting to explore whether teacher participation changes once the new qualifications become more embedded, or whether the challenges experienced with resourcing and the need for advice and guidance endure.

Ultimately, this study, like any form of individual participation is located in a specific social, local context of action (Dreier, 1999). This study has started to sketch an outline of what motivates and what restricts teacher participation in collaborative professional development that continues

across contexts but further research is needed to paint a brighter, clearer picture of what makes a difference to teaching and learning practices. Subsequent research that explores how collaborative professional development translates from social media to classroom contexts and develops the quality of teaching would be of value to teachers and the education profession more widely and is a recommended avenue for future study.

Chapter 9 Conclusion

In this chapter, I return to my research questions to outline my key findings and consider the contribution that this thesis makes to knowledge. I also look to the recommendations and guidelines provided by the literature and consider how these fit the landscape of participation sketched by the participants in this project. This chapter finishes by looking ahead to the next steps and future directions for research.

9.1 Research overview

RQ1: What kinds of collaborative professional development spaces are being created within social media by teachers?

The participants who contributed to this project indicated that teachers are creating a wide variety of collaborative professional development spaces within social media. These range from subject-specific Facebook groups that are only open to other teachers and focus on specific exam boards; to resource sharing areas such as the TES and Schoology in which the swapping of documents becomes a form of knowledge sharing and guidance; to public social media spaces such as Twitter in which audiences are large and potentially invisible but can be used to poll advice or promote a professional reputation.

These spaces are operating as communities of support at a time when participants are experiencing change in the qualifications that they teach, and, for some, these provide an opportunity for self-directed professional development that is closely matched to subject specific needs.

These professional social media spaces are not separate or discrete from participants' other social media use. Subject-specific Facebook groups are housed within personal Facebook pages, Twitter and Pinterest accounts can be used for both personal interests and professional needs. This can lead to a collapse in contexts (boyd, 2010), and make it difficult for participants to maintain personal/professional boundaries. There is also lack of clarity surrounding how social media spaces are accessed in schools. Although some teachers spoke of schools imposing restrictions on social media use, other used social media spaces as an embedded context of use and discussed displaying social media accounts in class or participated with parents using their personal Facebook profile.

The spaces that teachers are creating online are multiple. Participants do not restrict themselves to one particular platform, although they may prefer one space to another, and will range across platforms depending on their needs. The structural affordances of one platform may enable forms of participation that other spaces do not (for example, anonymity may encourage frank discussion, or the use of boards may encourage the curation of groups of resources). These social media spaces are created by participants for professional purposes but reject "a notion of the virtual that separates online spaces as a different world" (Miller, 2016: x) as they are enmeshed within the many other online and offline contexts in which participants live and work.

RQ2: How are teachers participating in these social media spaces?

The teachers in this project reported that participation in social media spaces can take many forms and for each teacher their participation varied depending on their needs, the restrictions of other contexts, or the affordances of the social media platform itself. Very few of the teachers interviewed fitted neatly within a typology of use. The snapshots taken of each teacher's responses indicate that their participation was a patchwork of different actions and attitudes; a "particular subjective composition" of different participatory practices (Dreier, 1999:21). It would not be possible to track these participants within a linear progression towards fuller participation within an online community or social media space (such as those indicated by Preece et al. 2009; Strijbos & DeLaat, 2010; Khoo & Forret, 2011).

Within the range of the different forms of participation that the teachers shared in questionnaire and interview responses, the most popular modes of participation online involved non-visible or minimal contribution. These included finding and downloading resources, reading, spectating in discussions, or liking/ favouriting the posts of others. This finding supports literature that suggests that the dominant mode of participation online is non-visible (Preece et al. 2004). However, over half of participants also indicated that they share resources with others. This, more visible, form of participation indicates that teachers are using social media as a forum for knowledge sharing (Bissessar, 2014). Fewer teachers were willing to post themselves than to read or follow the posts of others, with the least popular form of participation being the extended contribution of writing a blog.

When considering how teachers participate, the findings indicate that the nature of discussion online differs from discussion in person due to the multi-modal nature of the content and the structural affordances of the social media space (e.g. the written nature of contribution, or the

size of audience) (boyd, 2010). One way that this was manifested is in 'resource-sharing conversations', where the swapping and sharing of resources operates as a way to crowd-source knowledge or offer advice and guidance. These forms of discussion can seem cumulative and uncritical, lacking the kind of exploratory discussion (Littleton & Whitelock, 2005), and critical engagement necessary for robust professional development (Timperley et al. 2007). However, the resource-sharing that the teachers spoke about in this project is also functioning as a way of giving and accessing support (Littleton & Whitelock, 2005; Bissessar, 2014; Harn, 2017), that the teachers found extremely helpful because it was tailored to their specific professional needs and saved them time and effort.

Yet, the findings from this project indicate that participation online cannot be fully understood if one space is looked at in isolation. The engagement of teachers with the discussions that they engaged in online continued across contexts. Discussion may start in one social media space and then travel to another online or offline context before potentially returning back. A resource may be downloaded from a social media space, but then used and trialled in the classroom. This supports an understanding of social media use by teachers as a form of polymedia that spans the different contexts of their home and work lives (Miller, 2016).

When considering how teachers participate on social media, it emerged during this project that it is also important to think about the 'when'. The use of social media for professional development places demands on an individual's time, just as other forms of work do. Questionnaire responses indicated that during the school day was the least popular time of use compared with evenings, weekends and school holidays. This means that teachers are participating for professional purposes but during personal time. This has an impact on the individual's personal context and consequences for teachers' workload and work-life balance. The issue seems to have been compounded by a lack of guidance and clarity from schools on how teachers are meant to participate on social media for professional development purposes. None of the teachers interviewed were able to cite guidance, although some did refer to the absence of guidelines. This had led to some teachers expressing that the choice to participate on social media for professional purposes is equivalent to a choice to engage in a form of digital labour that is practised beyond the margins of the school day: a form of work that is not taking place within the workplace or within work hours.

RQ3: Why do teachers participate or choose not to participate?

When discussing their motivations for participation, teachers in this project presented the need for resources or information about subject-specific matters as the most common reason. Other professional motivators for use included information about pedagogy or innovations and new ideas. This tallies with the popularity of resource-sharing as it is through the swapping of documents and materials that this information is shared and communicated. These findings support the literature that presents the use of social media spaces as sites of knowledge sharing (e.g. Holmes et al. 2018; Bissessar, 2014; Macià & García, 2016). Teachers also reported that social media is used as a space for collaboration and networking with others. Fewer teachers explicitly recognised social media as a source of emotional support in questionnaire responses, which seems to contradict literature such as Bissessar (2014) that argues that social media provides a space in which this is possible. However, the interview responses indicated that the practical support that was accessed by teachers did seem to reduce the anxiety that teachers felt about the adequacy of their subject knowledge and teaching materials.

In order to understand why teachers are using social media, it is also important to understand the context of use. The reform of the GCSE qualifications has resulted in teachers experiencing a change in the content and assessment of the exam specifications that they are teaching. They are not able to rely on resources from previous years, as these no longer match the needs of the qualification. This has resulted in a need for advice, guidance and resources that seem to be in short supply. In this project, teachers expressed that they turn to social media spaces to source the advice and guidance that they cannot seem to access elsewhere, and to supplement resources that otherwise seem to be in short supply. It would be interesting to explore in future research whether the use of social media by teachers changes once the new qualifications have become familiar.

When expressing the reasons for non-participation, teachers referred to concerns over lack of time, privacy and dislike of social media, as the dominant reasons. Teachers who chose not to participate expressed a struggle to demarcate the boundaries of work and home-life when using social media. Participation was perceived to incur an additional workload or to intrude into personal time. Interviewees discussed the difficulties of managing notifications, of 24-hour access and the need to keep home and work life separate. An additional consideration is the digital labour that is generated when participating in certain ways online. Teachers who chose not to upload resources spoke of the workload generated by email requests, or the frustration when their work was claimed by others as their own. Those teachers who expressed concerns over

privacy felt that their private lives would be intruded upon by social media, and by restricting or adapting their own participation they regained control over work/life boundaries.

Overall, the forms of participation that teachers engaged in online were instrumental, and sometimes vital, in helping them to keep "their knowledge and skills as teachers up-to-date" and develop *"*a secure knowledge of the relevant subject(s) and curriculum areas*"* (DfE, 2016: 3). All those who participated were using social media to access "peer support" and "external expertise" (Cordingley et al. 2003: 5), that they could then put into practice in their professional context. It is interesting to note that the teachers who were lacking in opportunities for collaboration in the workplace expressed that isolation was a motivating factor for participation, whereas, those who had access to professional support from colleagues or peer networks cited this as a reason not to use social media. This would seem to suggest that social media could provide the opportunities for collaborative professional development that are lacking for some teachers. This is an area that would benefit from further research.

9.2 Contribution to knowledge

In the conceptual framework of this thesis, I identified two gaps in the current literature:

- The lack of a theoretical construct for the inclusion of social media participation as an inter-related context within collaborative professional development
- A lack of consideration of how non-visible participation is included within theories of collaborative professional development online.

In identifying social media as an inter-related context for collaborative professional development, and non-visible participation as part of a complex participatory process, this thesis addresses these gaps in the empirical and theoretical literature.

The theoretical construct outlined at the start of Chapter 8 presents a theoretical contribution to knowledge. This construct outlines how teachers' participation within social media spaces for professional development is a negotiation between overlapping social contexts of action. The social media context is a space in which teachers can discuss, share knowledge and access advice and guidance. These are forms of collaboration that match the "peer support" and "professional dialogue" recommended as forms of professional development (Cordingley et al. 2003: 5) and operate as mechanisms for "keeping knowledge and skills up to date" (DfE 2016b: 3).

Social media spaces are therefore operating as an inter-related professional context in which teachers are participating in role as teachers. However, when participating in this professional capacity they are also balancing the needs and demands of the school context (e.g. a need for teaching resources, or restrictions on use within school time) with the needs of their personal contexts (e.g. the needs of a family, or a desire for privacy). The forms that participation takes are a response to the relationships with these other contexts.

The actions that form a teacher's participatory behaviours can span across contexts and may not be visible or non-visible when viewed from a particular perspective. For example, a teacher's use of an online resource in the classroom would not be considered a visible form of participation in a social media space. Other forms of participation online, such as reading and spectating, are also not considered visible but can represent forms of intransitive mental participation (Reda, 2009) or "vicarious learning" (Hrastinski, 2008: 1760). The contributions from the teachers that form the data in this project reveal the motivations that sit behind participatory choices. These re-position non-visible participation to include it as a choice and another way of interacting in collaborative professional development in social media spaces. These findings address this gap in the literature and form my empirical contribution to knowledge.

9.3 Next steps and recommendations

In the report 'Tweeting for Teachers', McCulloch et al. (2011: 5) make a series of recommendations for school leaders and for policy makers.

Within these recommendations the following actions are suggested:

"School leaders should:

1. learn about and engage with the social platforms that their teachers, parents and pupils are using every day;

2. use a social media tool as part of their communications with the school community;

3. validate and support their staff in using social media tools for ongoing professional development."

Whilst the teachers in this project reported that the use of social media for communication with the school community has been adopted by some schools, the validation and support for teachers in their use of social media for professional development was not as prevalent. There is lack of clarity surrounding how teachers should use social media for professional development. Schools seem to have acceptable use policies that ensure compliance with statutory duties regarding safeguarding, but lack guidance on how teachers could use social media to support them in their professional practice.

This absence of guidance at a school level, reflects an absence at policy level. The recommendations from the McCulloch et al. (2011: 5) indicated that policy makers should:

- "publish guidelines and support for teachers and leaders to help them use social media in schools;
- consider how they will begin to unfilter social media sites for use in schools;
- recognise and celebrate self-directed professional learning by teachers using online tools, and the role of social media in this learning;
- create a common online space where the whole education community can find each other;
- ensure that all Initial Teacher Training courses demonstrate a strong focus on the use of social media tools for ongoing professional development."

From the responses of the teachers in this investigation, it seems that all of these recommendations have yet to be actioned. Teachers reported a wide variety of approaches to

social media use for professional purposes in school, but none were able to discuss how their professional learning was recognised or celebrated by the school that employed them.

The recommendation for a common online space is also echoed in Cordingley et al.'s (2005: 9) call for the creation of "a distinctive space where it is safe to admit need" so that collaborative working practices can take hold. However, despite the intervening years, a common collaborative online space for the educational community has not emerged.

One of the deeper issues at the root of the lack of action in this area is the lack of recognition for social media participation as a form of professional development. Whilst social media use by teachers for collaborative purposes is recognised in the literature, it does not feature within UK policy guidelines or professional development standards (DfE, 2016a; DfE, 2016b). Until social media use is recognised as another form of professional participation, then any recommendation that teachers engage further with the opportunities that social media spaces have to offer needs to be made with caution. Recent workload surveys suggest that teachers struggle with workload, and if their professional participation within social media spaces is not recognised as work, then it becomes a form of digital labour that individuals perform in their personal time.

It is evident from the findings of this project that professional participation in social media spaces is a complex issue that still sits at the margins of the workplace. It is an issue that merits further discussion if the potential benefits of collaboration online are to be extended to all. This thesis contributes a theoretical construct that can be used to support an understanding of participation in social media spaces as an inter-related professional context and, in doing so, represents the first step in this discussion.

Appendices

1. Copy of initial contact email to schools
2. Copy of pilot questionnaire
3. Copy of main project questionnaire
4. Summary of pilot study questionnaire response data
5. Summary of main project questionnaire response data
6. Interview consent form
7. Participant Information Sheet
8. Semi-Structured Interview Schedule
9. Extract from transcribed interview – pilot (Kathy)
10. Transcribed interview – main project (Beth)
11. Pilot coding table: emergent codes from coding of interview with kathy
12. Main project coding table: emergent codes and themes
13. Thematic weighting table: themes by % proportion in the data

Appendix 1 - Initial Contact Email to Headteachers

Dear ….

My name is Kate Erricker. I am a PhD researcher in Education at Southampton University. In my day job, I also work as an Educational Advisor in schools.

I am currently conducting a research project with teachers from secondary schools in Hampshire, Portsmouth and Southampton, studying how teachers participate in discussions on social media as part of our professional practice. I am interested in how we interact - write, read and speak - with each other as teachers online.

I am getting in touch today to ask if you would be willing to allow me to contact teachers in your school to ask them to participate in my research project?

Participation in the research consists of a short online questionnaire (10 multiple choice questions. Here is a link: https://goo.gl/forms/1iAgcxnWckBTLku33. I have also attached a PDF copy to this email). All responses to the questionnaire are anonymous.

For teachers who are happy to volunteer, I am also conducting 40 minute interviews in which they explain how and why they use social media for professional purposes. Teachers can indicate if they are willing to participate in an interview at the end of the questionnaire. Responses to interview will also be fully anonymised.

If you are happy for me to contact teachers at your school, please confirm by reply to this email. It would also be very helpful if you could provide the name and email address of a member of staff who could distribute the questionnaire link to teachers by internal email.

I have attached an information sheet that explains the interview process in more detail. Please feel free to contact me if you have any further questions. I am happy to discuss the process further on the phone.

I hope to hear from you soon.

Kind regards

Kate Erricker

PhD Researcher in Education
University of Southampton

Appendix 2 – Pilot Questionnaire

Questionnaire on Teacher Participation in Discussion on Social Media

Please read this information carefully before deciding to take part in this research. If you are happy to participate please check the boxes below.

I am Kate Erricker. I work as an adviser for Hampshire LEA and I am studying part-time towards a PhD in Education. This questionnaire is part of my PhD pilot study into how teachers participate in discussions on social media as part of our professional practice. I am interested in how we interact - write, read, speak and listen - with each other as teachers online. Your voluntary participation and responses to this questionnaire will be highly valuable as they will help me to collect the appropriate and necessary data for my study.

The questionnaire is short - 10 questions only. All are multiple choice, but if you answer 'other' to any question, it would be great if you could also add a little detail.

The data that will be collected will be only used for academic purposes and is password protected. All responses will be anonymised in all analysis and write-ups of the data. If you are happy to be contacted later for interview please check the box at the end and include your name and email address so that I can get in touch.

Please check the boxes below if you consent to take part in this research project and agree for your data to be used for the purpose of this study.

If you have any questions or issues regarding this questionnaire please feel free to get in touch with me at kerricker@gmail.com. You can also use this email if you'd like to get in touch to learn about the findings of this research.

Thank you in advance for your participation!

Kate

*Required

1. **Please check the 5 boxes below to indicate that you are giving consent for your responses to be used as part of my PhD pilot study.** *

   Tick all that apply.

   ☐ I have read and understood the information detailed above and have had the opportunity to ask questions about the study.

   ☐ I agree to take part in this research project and agree for my data to be used for the purpose of this study.

   ☐ I understand my participation is voluntary and although I cannot withdraw my answers to these questions once they have been submitted, I can choose to stop answering at any point in the questionnaire

   ☐ I understand that my responses will be anonymised in reports of the research

   ☐ I understand that information collected about me during my participation in this study will be stored on a password protected computer and that this information will only be used for the purpose of this study.

2.

1. What is your gender?

Mark only one oval.

- ◯ Male
- ◯ Female

3.

2. How long have you been a teacher?

Mark only one oval.

- ◯ Training or NQT year
- ◯ 2 - 5 years
- ◯ 6 - 10 years
- ◯ 11 - 15 years
- ◯ 16 - 20 years
- ◯ Over 20 years

4.

3. Professional vs. personal use of social media

Mark only one oval.

- ◯ I use social media for professional purposes only *Skip to question 6.*
- ◯ I only use social media for personal purposes only *Skip to question 5.*
- ◯ I use social media for both personal and professional purposes *Skip to question 6.*
- ◯ I don't use social media *Skip to question 5.*

Non-users of social media for professional purposes

5.

4. Why do you choose not to use social media for professional purposes? *Tick all that apply

Tick all that apply.

- ☐ Concerns over privacy
- ☐ Lack of time
- ☐ It is not beneficial or useful
- ☐ Dislike of social media
- ☐ Other: _____

Skip to question 11.

6.

5. Which of the following platforms do you use interact with conversations about teaching? *Tick all that apply

Tick all that apply.

- [ ] Twitter
- [ ] Facebook
- [ ] Instagram
- [ ] Blogging websites (e.g. Tumblr, Wordpress etc)
- [ ] Pinterest
- [ ] LinkedIn
- [ ] Other: _____

7.

6. How do you interact with or participate in these online conversations about teaching? *Tick all that apply

Tick all that apply.

- [ ] Write blog
- [ ] Write comments on other peoples' blogs
- [ ] Share/ receive resources
- [ ] Follow #conversations at scheduled times (e.g. #edchat)
- [ ] Post to #conversations
- [ ] Post comments about teaching on my homepage/ wall/ feed etc.
- [ ] Retweet/ share posts made by others
- [ ] Like/ favourite posts made by others
- [ ] Lurk/ read posts made by others
- [ ] Other: _____

8.

7. What kinds of topics are you most interested in talking or reading about? *Tick all that apply

Tick all that apply.

- [ ] Curriculum matters (exam content, lesson resources etc)
- [ ] Teaching pedagogy (e.g. the value of particular approaches)
- [ ] Policy (e.g. DfE or Ofsted)
- [ ] New innovations and ideas
- [ ] Problems being experienced in own practice
- [ ] Other: _____

9. **8. When do you use social media to interact with conversations about teaching? *Tick all that apply**

Tick all that apply.

- [ ] During the school day
- [ ] Evenings
- [ ] Weekends
- [ ] School holidays

10. **9. Why do you interact with conversations about teaching online?**

Tick all that apply.

- [ ] Share/ acquire resources or ideas
- [ ] Collaborate with other educators
- [ ] Networking purposes
- [ ] Emotional support
- [ ] To get updates on news or policy
- [ ] Other: _____

Interview consent

11. **10. Would you be willing to participate in a 40 minute interview about your use of social media for discussion about teaching and learning?**

Mark only one oval.

- ◯ Yes
- ◯ No *Stop filling out this form.*

Interview participants

12. **If answering Yes, please note down your name and email below so that I can get in touch (your responses will still be anonymised).**

_____

_____

_____

_____

_____

Appendix 3 – Main Project Questionnaire

1.

Please check the 5 boxes below to indicate that you are giving consent for your responses to be used as part of my PhD pilot study. *

Tick all that apply.

- [ ] I have read and understood the information detailed above and have had the opportunity to ask questions about the study.
- [ ] I agree to take part in this research project and agree for my data to be used for the purpose of this study.
- [ ] I understand my participation is voluntary and although I cannot withdraw my answers to these questions once they have been submitted (because these are submitted anonymously), I can choose to stop answering at any point in the questionnaire
- [ ] I understand that, if I choose to volunteer for interview, my responses will be anonymised in reports of the research
- [ ] I understand that information collected about me during my participation in this study will be stored on a password protected computer and that this information will only be used for the purpose of this study.
- [ ] I understand that if I choose to do an interview, I can choose to withdraw at any time prior to, or within the two weeks after, the interview

Background information

2.

1. What is your gender?

Mark only one oval.

- ◯ Male
- ◯ Female
- ◯ Prefer not to disclose

3.

2. Age

Mark only one oval.

- ◯ 18 - 24
- ◯ 25 - 34
- ◯ 35 - 44
- ◯ 45 - 54
- ◯ 55 - 64
- ◯ Over 65

4.

3. How long have you been a teacher?

Mark only one oval.

- ◯ Training or NQT year
- ◯ 2 - 5 years
- ◯ 6 - 10 years
- ◯ 11 - 15 years
- ◯ 16 - 20 years
- ◯ Over 20 years

5.

4. Professional vs. personal use of social media

Mark only one oval.

- ◯ I use social media for professional purposes only *Skip to question 7.*
- ◯ I only use social media for personal purposes only *Skip to question 6.*
- ◯ I use social media for both personal and professional purposes *Skip to question 7.*
- ◯ I don't use social media *Skip to question 6.*

Non-users of social media for professional purposes

6.

5. Why do you choose not to use social media for professional purposes? *Tick all that apply

Tick all that apply.

- ☐ Concerns over privacy
- ☐ Lack of time
- ☐ It is not beneficial or useful
- ☐ Dislike of social media
- ☐ Other: _____

Skip to question 12.

Teacher use of social media

7.

6. Which of the following platforms do you use to interact with/ participate in conversations about teaching ? *Tick all that apply

Tick all that apply.

- [ ] Twitter
- [ ] Facebook
- [ ] Instagram
- [ ] Blogging websites (e.g. Tumblr, Wordpress etc)
- [ ] Pinterest
- [ ] LinkedIn
- [ ] Google+
- [ ] Snapchat
- [ ] Edmodo
- [ ] Youtube
- [ ] Mumsnet
- [ ] MOOCS (Online Courses)
- [ ] Other: _____

8.

7. How do you interact with or participate in these online conversations about teaching? *Tick all that apply

Tick all that apply.

- [ ] Write blog
- [ ] Write comments on other peoples' blogs
- [ ] Share resources with others
- [ ] Find/ download resources
- [ ] Follow #conversations at scheduled times (e.g. #edchat)
- [ ] Post to #conversations
- [ ] Post comments about teaching on my homepage/ wall/ feed etc.
- [ ] Retweet/ share posts made by others
- [ ] Like/ favourite posts made by others
- [ ] Read posts or blogs written or shared by others
- [ ] Other: _____

9.

8. What kinds of topics are you most interested in talking or reading about? *Tick all that apply

Tick all that apply.

- [ ] Subject specific curriculum matters (exam content, lesson resources etc)
- [ ] Teaching pedagogy (e.g. the value of particular approaches - behaviour management, group work etc.)
- [ ] Policy (e.g. DfE or Ofsted)
- [ ] New innovations and ideas
- [ ] Problems being experienced in own practice
- [ ] News and current affairs in education
- [ ] Other: _____

10.

9. When do you use social media to interact with conversations about teaching? *Tick all that apply

Tick all that apply.

- [ ] Before school
- [ ] During the school day
- [ ] After school (whilst still at school)
- [ ] Evenings
- [ ] Weekends
- [ ] School holidays

11.

10. Why do you interact with conversations about teaching online?

Tick all that apply.

- [ ] Share my resources or ideas
- [ ] Acquire resources or ideas
- [ ] Collaborate with other educators
- [ ] Networking purposes
- [ ] Emotional support
- [ ] To get updates on news or policy
- [ ] Other: _____

Interview consent

12.

Would you be willing to participate in a 40 minute interview about your use of social media for discussion about teaching and learning?

Mark only one oval.

- ◯ Yes
- ◯ No *Stop filling out this form.*

Interview participants

13. **If answering Yes, please note down your name and a contact email below so that I can get in touch (your questionnaire responses will still be anonymous within all reports of the research)**

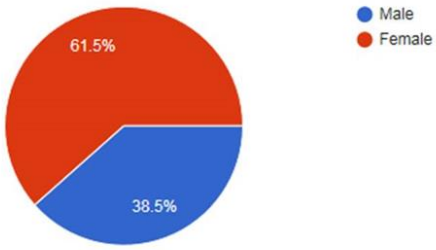
Powered by Google Forms

Appendix 4 – Summary of Pilot Questionnaire Response Data

Summary of Pilot Questionnaire Response Data

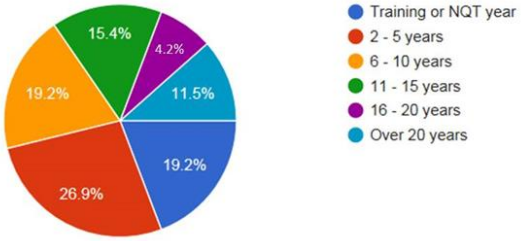
1. What is your gender?

26 responses

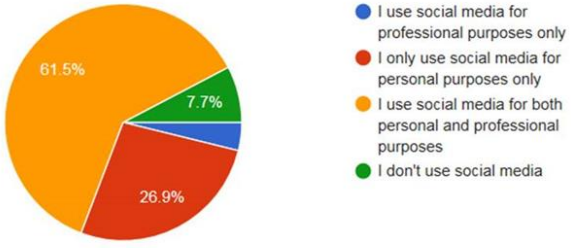


2. How long have you been a teacher?

26 responses

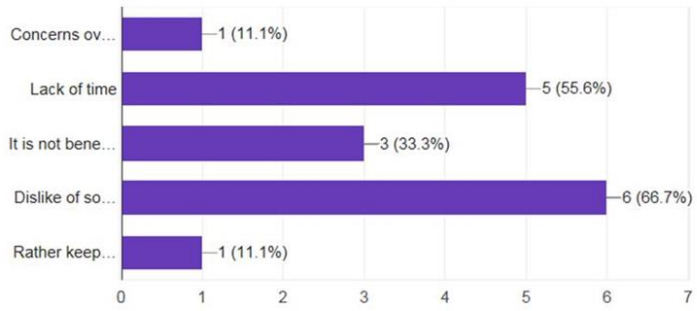


26 responses



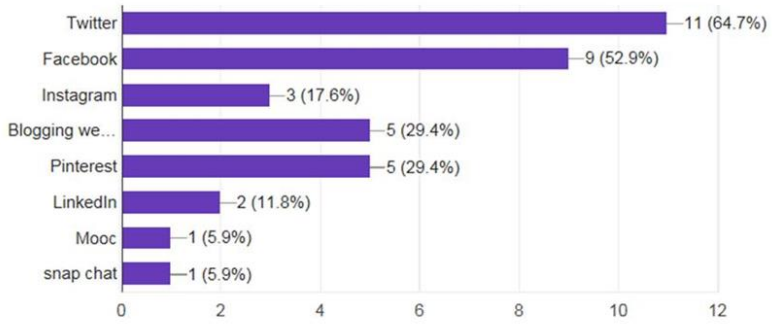
4. Why do you choose not to use social media for professional purposes?

9 responses



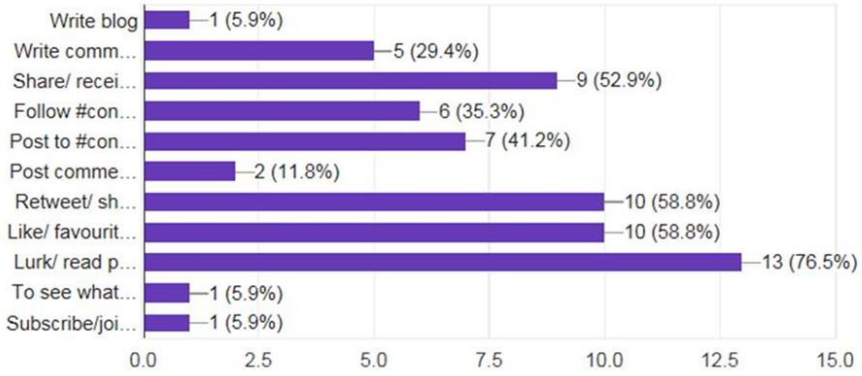
5. Which of the following platforms do you use to interact with conversations about teaching? *Tick all that apply

17 responses



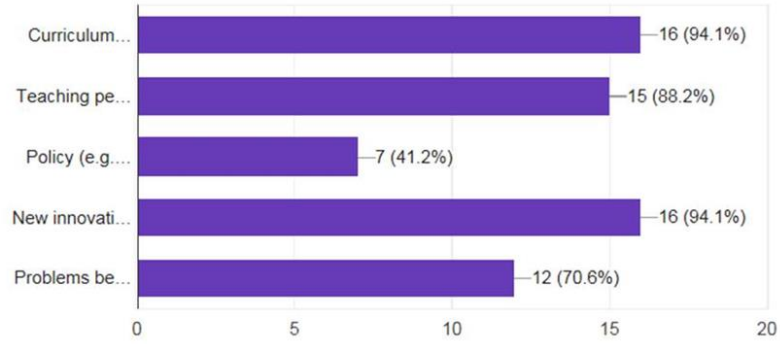
6. How do you interact with or participate in these online conversations about teaching? *Tick all that apply

17 responses



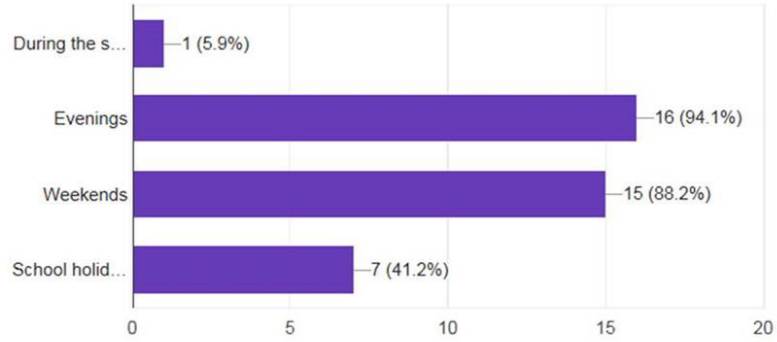
7. What kinds of topics are you most interested in talking or reading about? *Tick all that apply

17 responses



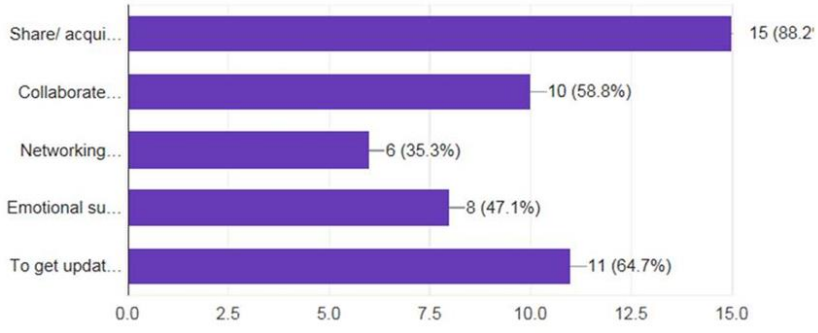
8. When do you use social media to interact with conversations about teaching? *Tick all that apply

17 responses



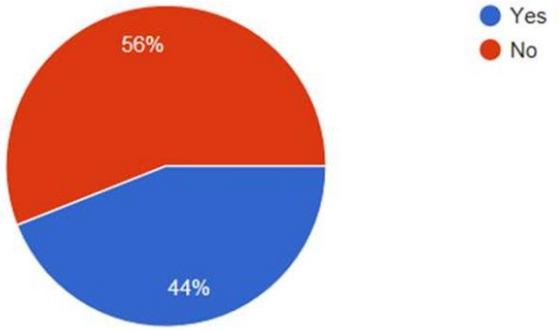
9. Why do you interact with conversations about teaching online?

17 responses

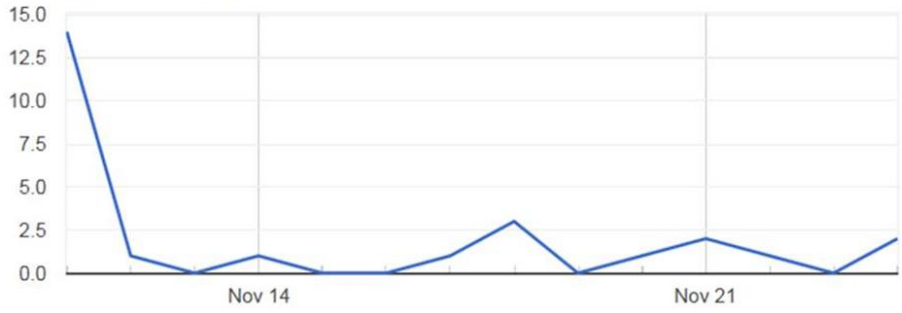


10. Would you be willing to participate in a 40 minute interview about your use of social media for discussion about teaching and learning?

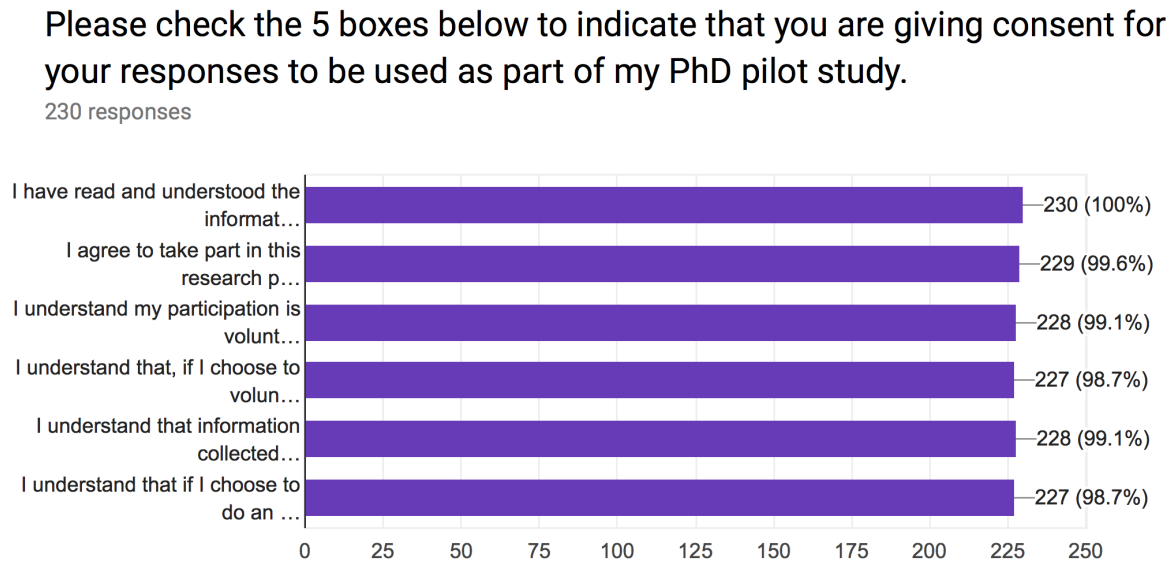
25 responses

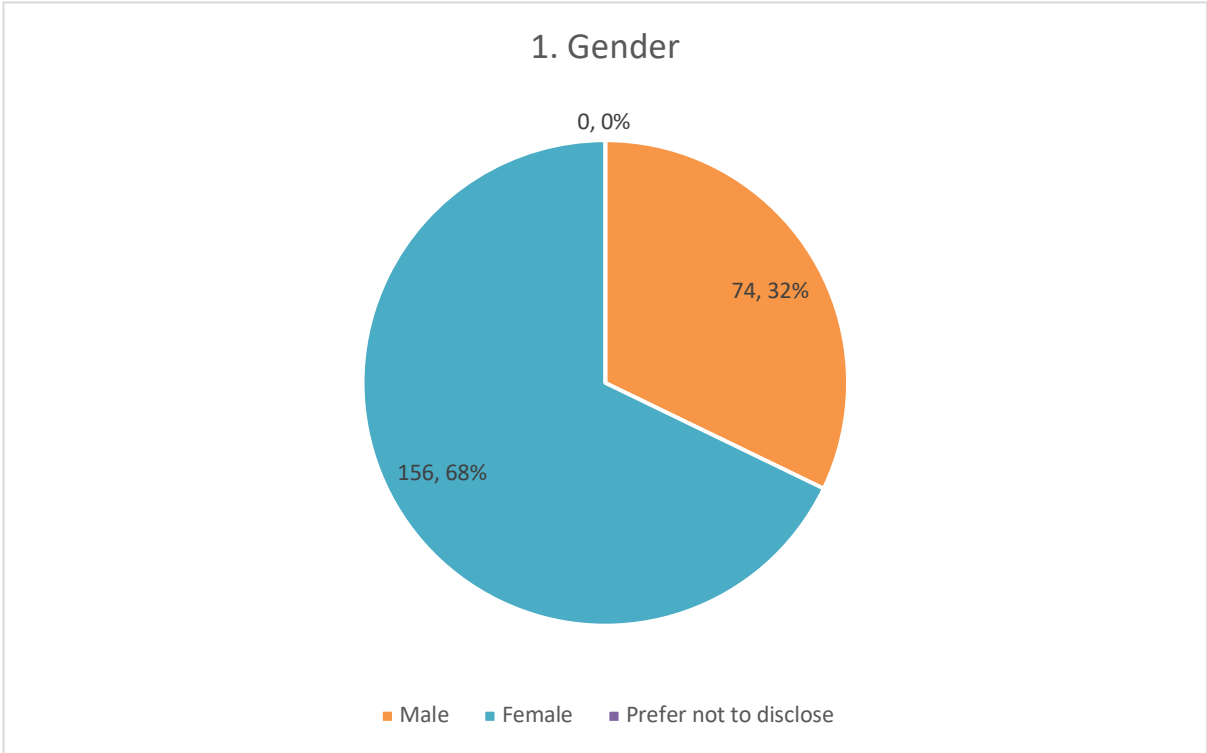


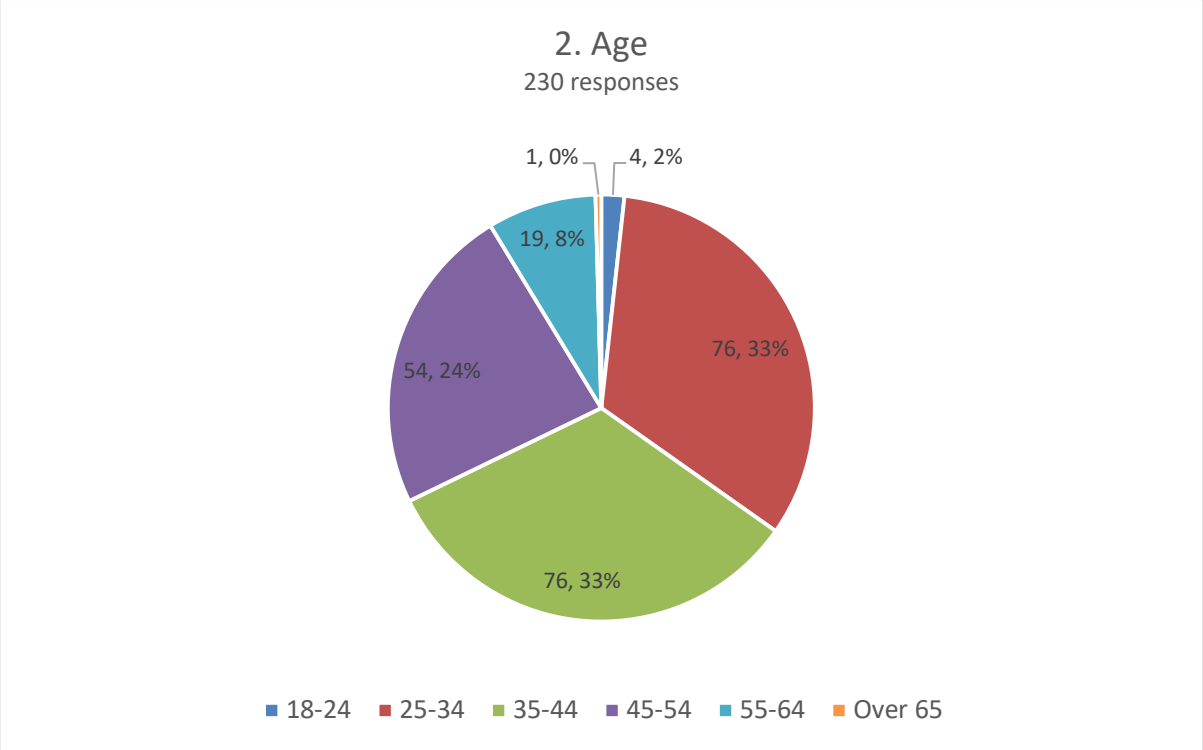
Number of daily responses

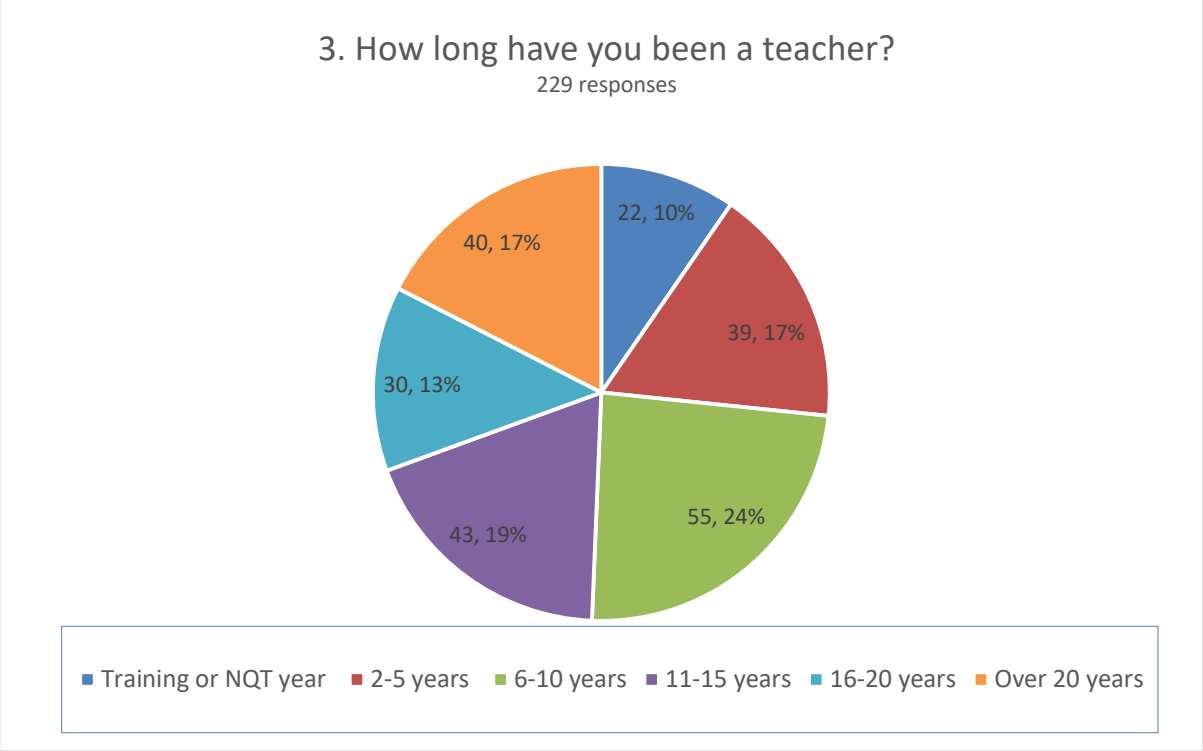


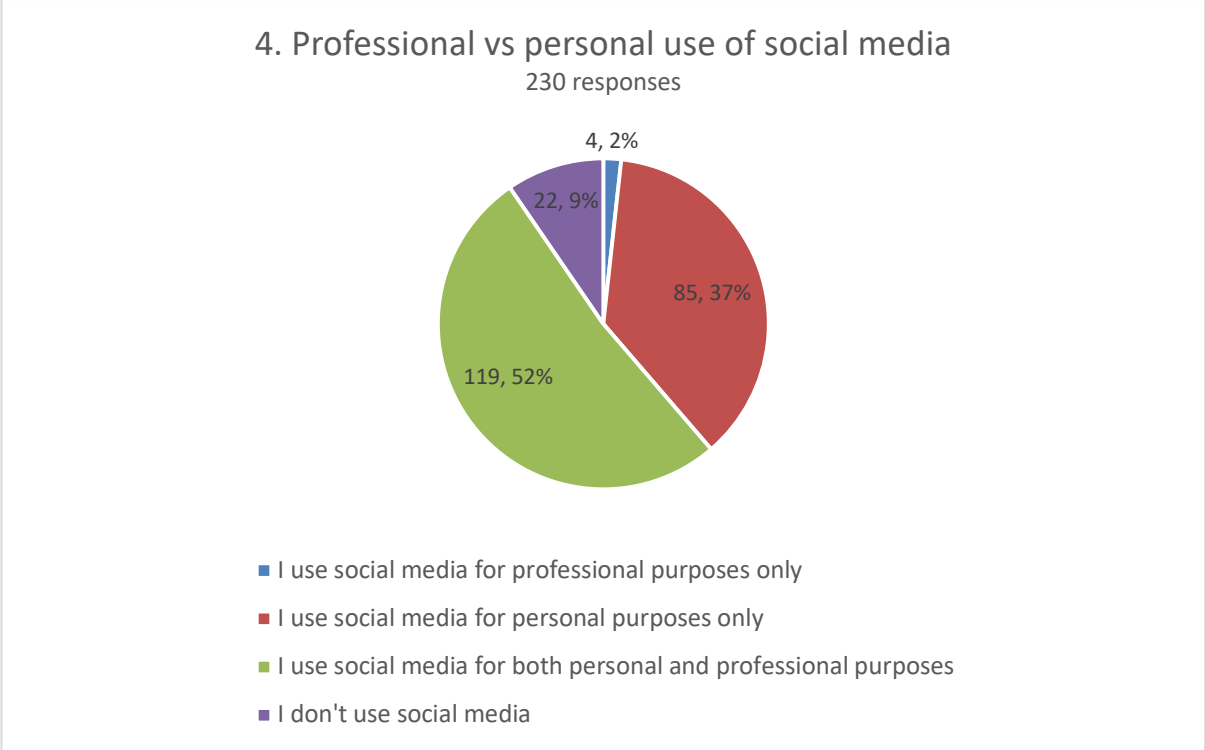
Appendix 5 - Summary of Main Project Questionnaire Response Data

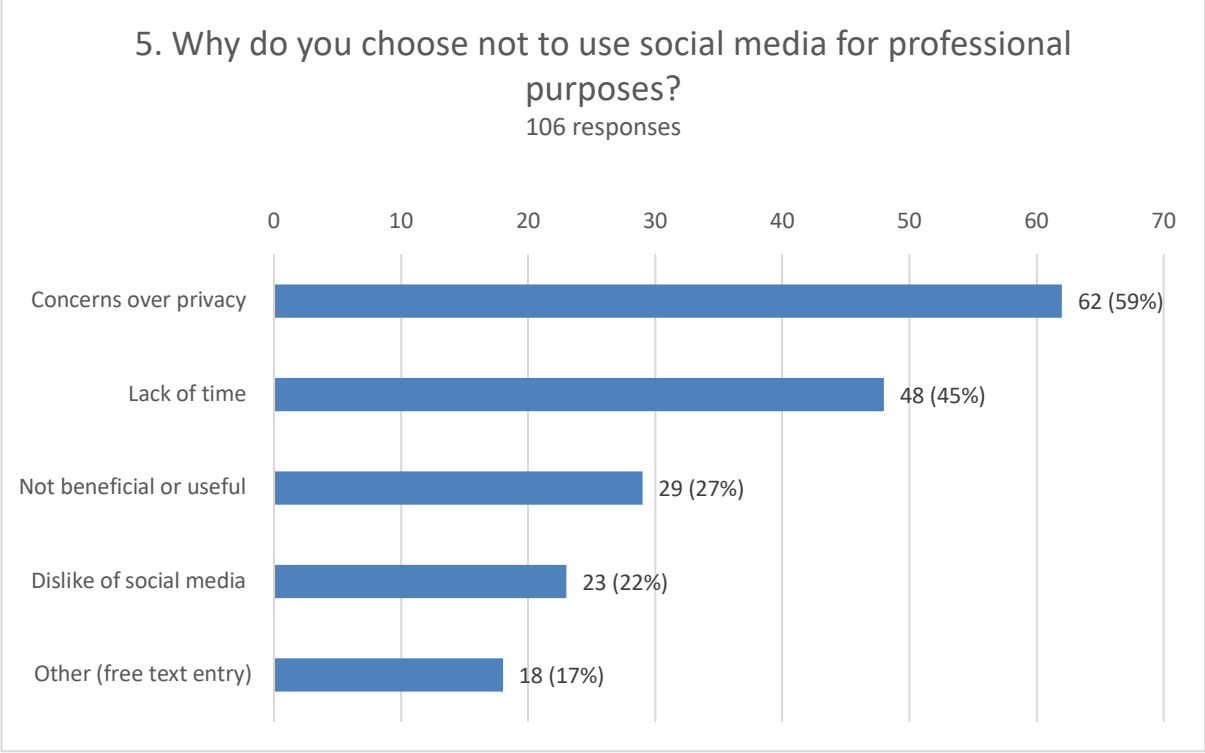


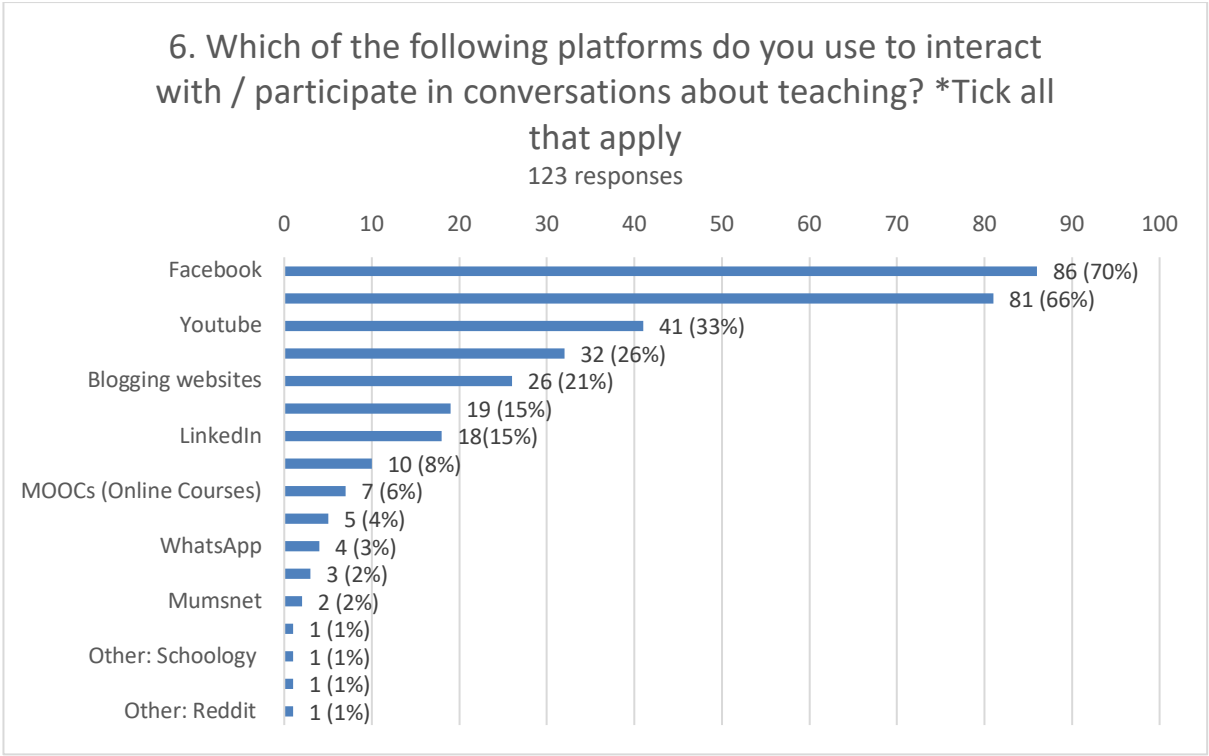


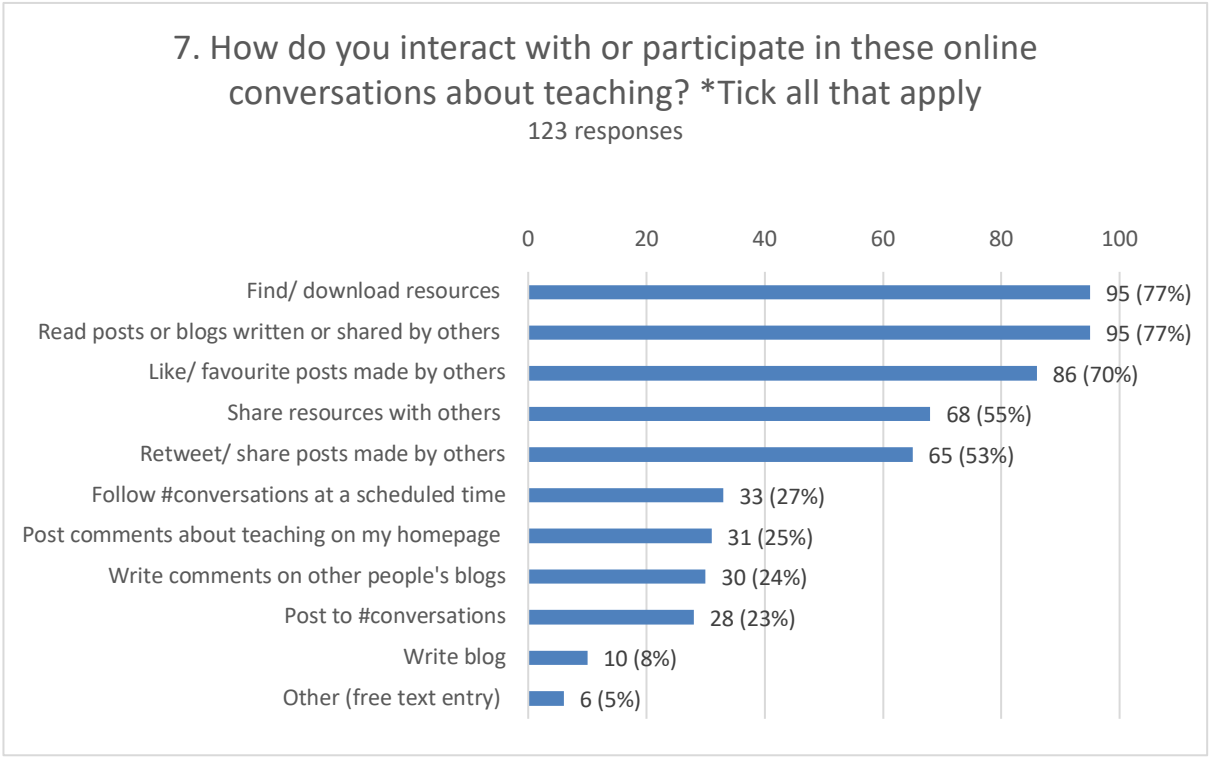

2. Age
230 responses
1, 0%
4, 2%
19, 8%
76, 33%
54, 24%
76, 33%
18-24
25-34
35-44
45-54
55-64
Over 65

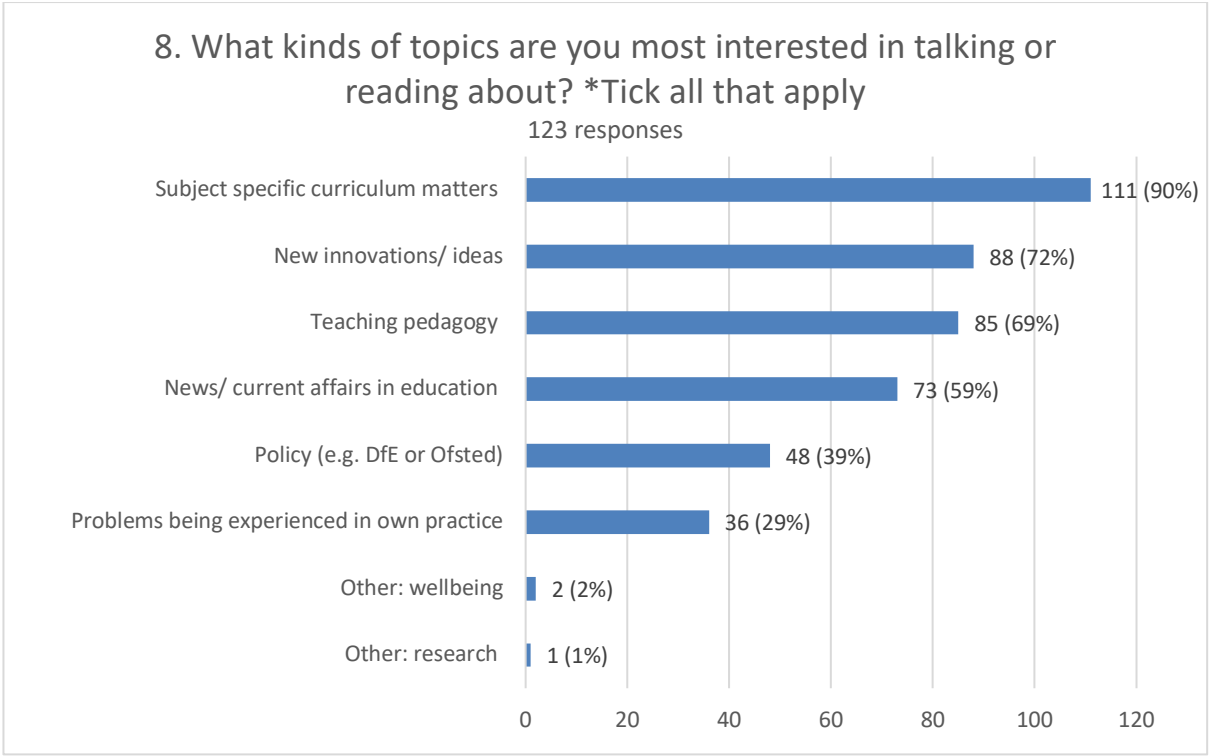

3. How long have you been a teacher?
229 responses
22, 10%
39, 17%
55, 24%
43, 19%
30, 13%
40, 17%
Training or NQT year
2-5 years
6-10 years
11-15 years
16-20 years
Over 20 years

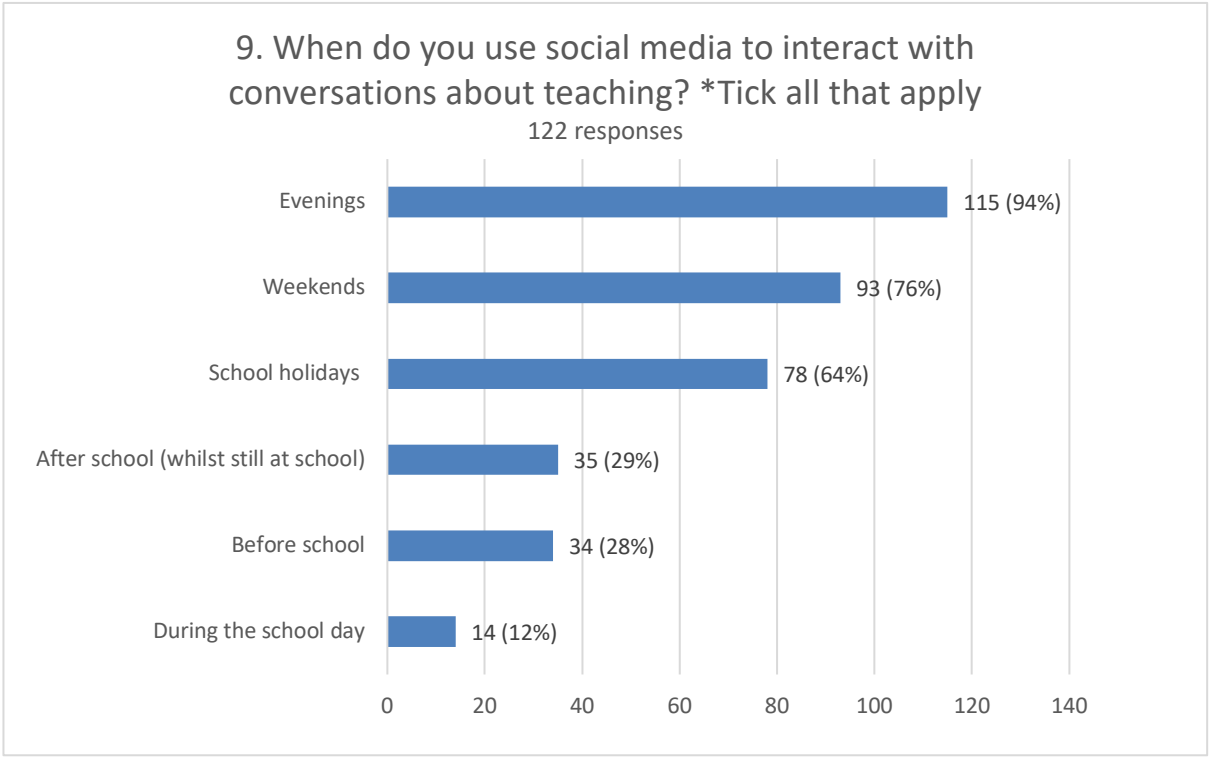

4. Professional vs personal use of social media
230 responses
4, 2%
22, 9%
85, 37%
119, 52%
I use social media for professional purposes only
I use social media for personal purposes only
I use social media for both personal and professional purposes
I don't use social media

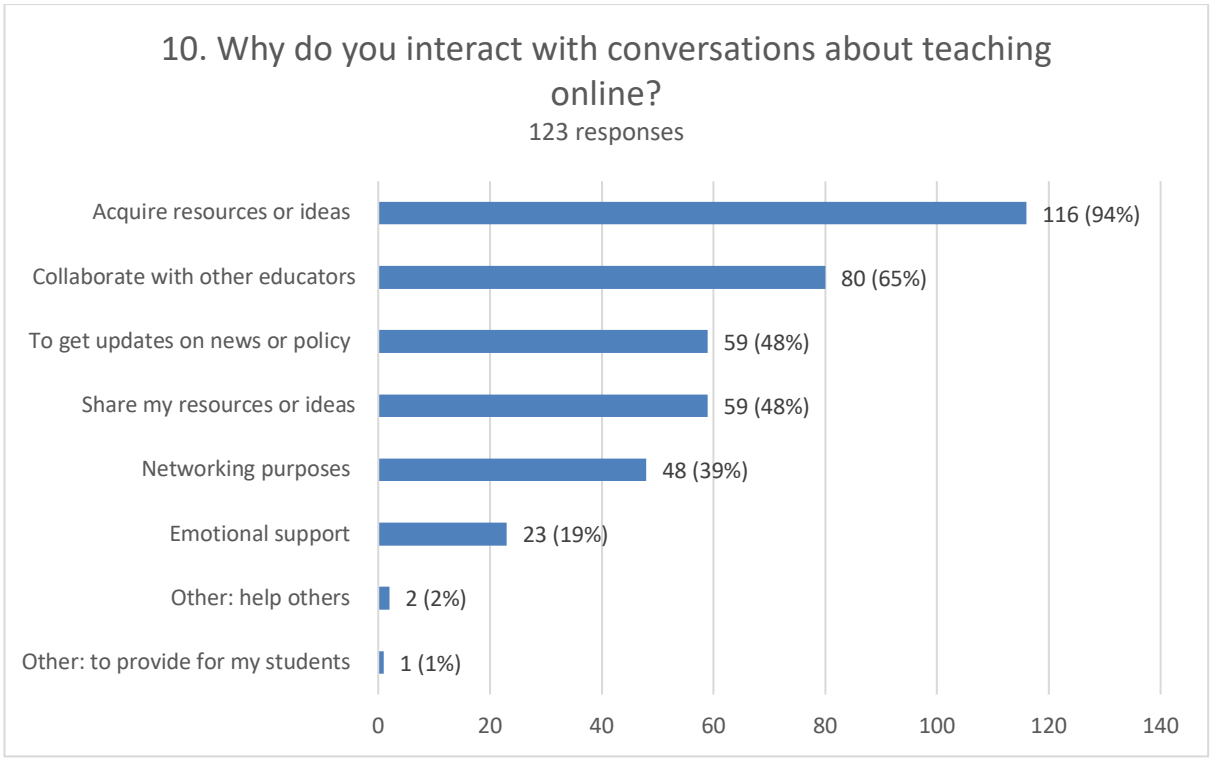

5. Why do you choose not to use social media for professional purposes?
106 responses
0
10
20
30
40
50
60
70
Concerns over privacy
62 (59%)
Lack of time
48 (45%)
Not beneficial or useful
29 (27%)
Dislike of social media
23 (22%)
Other (free text entry)
18 (17%)


6. Which of the following platforms do you use to interact with / participate in conversations about teaching? *Tick all that apply
123 responses
0
10
20
30
40
50
60
70
80
90
100
Facebook
86 (70%)
81 (66%)
Youtube
41 (33%)
32 (26%)
Blogging websites
26 (21%)
19 (15%)
LinkedIn
18(15%)
10 (8%)
MOOCs (Online Courses)
7 (6%)
5 (4%)
WhatsApp
4 (3%)
3 (2%)
Mumsnet
2 (2%)
1 (1%)
Other: Schoology
1 (1%)
1 (1%)
Other: Reddit
1 (1%)


7. How do you interact with or participate in these online conversations about teaching? *Tick all that apply
123 responses
0
20
40
60
80
100
Find/ download resources
95 (77%)
Read posts or blogs written or shared by others
95 (77%)
Like/ favourite posts made by others
86 (70%)
Share resources with others
68 (55%)
Retweet/ share posts made by others
65 (53%)
Follow #conversations at a scheduled time
33 (27%)
Post comments about teaching on my homepage
31 (25%)
Write comments on other people's blogs
30 (24%)
Post to #conversations
28 (23%)
Write blog
10 (8%)
Other (free text entry)
6 (5%)


8. What kinds of topics are you most interested in talking or reading about? *Tick all that apply
123 responses
Subject specific curriculum matters
111 (90%)
New innovations/ ideas
88 (72%)
Teaching pedagogy
85 (69%)
News/ current affairs in education
73 (59%)
Policy (e.g. DfE or Ofsted)
48 (39%)
Problems being experienced in own practice
36 (29%)
Other: wellbeing
2 (2%)
Other: research
1 (1%)
0
20
40
60
80
100
120


9. When do you use social media to interact with conversations about teaching? *Tick all that apply
122 responses
Evenings
115 (94%)
Weekends
93 (76%)
School holidays
78 (64%)
After school (whilst still at school)
35 (29%)
Before school
34 (28%)
During the school day
14 (12%)
0
20
40
60
80
100
120
140


10. Why do you interact with conversations about teaching online?
123 responses
Acquire resources or ideas
116 (94%)
Collaborate with other educators
80 (65%)
To get updates on news or policy
59 (48%)
Share my resources or ideas
59 (48%)
Networking purposes
48 (39%)
Emotional support
23 (19%)
Other: help others
2 (2%)
Other: to provide for my students
1 (1%)
0
20
40
60
80
100
120
140

Appendix 6 – Interview Consent Form

INTERVIEW CONSENT FORM

Study title: Teachers' Participation in Discussion Spaces at the Margins of the Workplace: Collaborative Professional Development Opportunities within Social Media

Researcher name: Kate Erricker

Ethics reference: 32172

Please initial the boxes if you agree with the statements:

I have read and understood the information sheet (dated 21/03/18, Version 4) and have had the opportunity to ask questions about the study.	☐
I agree to take part in the interviews for this research project and agree for my data to be used for the purpose of this study.	☐
I understand that my responses will be anonymised in reports of the research	☐
I understand my participation is voluntary and I may withdraw at any time prior to or during the interview, or at any time in the two weeks following the interview without my legal rights being affected. After this time frame, my responses may be part of a composite written analysis, and although I cannot withdraw my response, any information will be fully anonymised and I will not be recognisable within the analysis.	☐

Data Protection

I understand that information collected about me during my participation in this study will be stored on a password protected computer and that this information will only be used for the purpose of this study.

Name of participant (print name)……

Signature of participant……..

Date……

[21/03/18] [Version 4]

Appendix 7 – Participant Information Sheet

Participant Information Sheet – Interview Participants

Study Title: Teachers' Participation in Discussion Spaces at the Margins of the Workplace: Collaborative Professional Development Opportunities within Social Media

Researcher: Kate Erricker **Ethics number:** 32172

Please read this information carefully before deciding to take part in this research. If you are happy to participate you will be asked to sign a consent form.

What is the research about?
I am studying part-time towards a PhD in Education. The interviews that I am conducting are part of my PhD study into how teachers use social media.

Why have I been chosen?
This study focuses on how teachers use social media to discuss their professional practice. I am looking for teachers to discuss and share the way that they use social media to talk about teaching in a 40 minute interview. You have been chosen as someone who uses social media in this way and because you have indicated that you are willing to talk about it further in the questionnaire you completed. Your voluntary participation in the interview will be highly valuable as it will help me to collect the appropriate and necessary data for my study.

What will happen to me if I take part?
If you agree to take part, we will arrange to meet at a time that is convenient to you, ideally at school or, if preferable, at another quiet venue of your choice. Once you have given your consent to take part, we will have a conversation in which we talk about your use of social media for professional purposes and you show me how you participate in social media online using my computer. The conversation will be recorded and, if you consent, I will use the Active Presenter screen capture software to record the online activity that you refer to in our conversation.

Are there any benefits in my taking part?
You might not get any direct benefit for participating in this study personally but I hope that the findings of this study will benefit the teachers, education practitioners and social media researchers in education. This study could be used as a medium for you to express your opinions regarding the topic. In addition, it will give you the opportunity to reflect upon your experience in terms of how you use discussion on social media to inform your professional practice.

Are there any risks involved?
There are no real risks to being involved and you are not obliged to share any online activity or talk about any information that is private or confidential.

Will my participation be confidential?
The recording and any documents will be stored on a computer and they will be password protected so that they cannot be accessed by anyone else. In any written documents your name and the names of anyone else you mention (such as family members and medical professionals) will be changed, as will any other details by which you could be identified. Information will be kept safe in line with UK laws (the Data Protection Act) and University of Southampton policy. Your questionnaire data will remain anonymous and the agreement and personal data submitted on the form will be removed from the questionnaire and stored in a separate file.

What happens if I change my mind?
Your participation in this study is completely voluntary. You may withdraw from this study at any time prior to or during the interview starting, or within the 2 weeks after the interview has taken place. After this point some of your responses may have been synthesised into the written analysis and so cannot be removed. However, any of the responses you give will be fully anonymised and you will not be recognisable.

What happens if something goes wrong?
If you have any concerns or complaints about how this research is conducted, you may contact: Head of Research Governance, University of Southampton, rgoinfo@soton.ac.uk+44 (0) 2380 595058

Where can I get more information?
If you have any further questions once you have read this information sheet, please get in touch with me using the following details: Email: kk1v09@soton.ac.uk Phone: 07869 111598

Appendix 8 – Semi-Structured Interview Schedule

Discussion Spaces at the Margins of the Workplace

Semi-Structured Interview Schedule

Introduction and Consent Procedures
Introduce myself.

Check participant has read the information sheet sent to them in advance. Go through the items on the consent form. Ensure fully informed consent has been given including reminding participants that they can withdraw prior to or during the interview, or within the 2 weeks subsequent to the interview. Explain the process of withdrawing, should you choose to, that the 2 week withdrawal timeframe is due to the process of synthesising responses within the analysis of the data, and the choice to withdraw is without penalty.

Explain the format of the interview including audio recording and the recording of online activity in which participants access and talk through social media use.

Set-up and Clarification of Key Terms
Set up screen capture/ audio recording software

Clarify interviewee's understanding of the term 'discussion spaces online' and that the interview will be discussing their use of social media for professional purposes. Remind the participant that they are welcome to hide any posts they do not wish me to see and share the phrase *'I would rather not talk about this'* for participants to use if there are any sensitive topics or posts that they do not wish to discuss.

Participation in Spaces for Discussion
Which online space do you use most to talk about teaching and/or professional matters?
Participant goes to this space online

Talk through the process of interacting in this online discussion space:
Include:

- What are you looking for?
- What catches your interest?
- How do you determine if the content is of value to them?
- How does this content make you feel?
- How do you choose to respond to the posts of others online?
- The process of response (perhaps actually enacted as part of the interview) and the actions you take (E.g. clicking through to a linked site, composing a reply)
- Why do you choose to respond in this way?

If relevant log in to a second online discussion space and repeat this process

Reflection
When do you have these discussions about teaching online?
Why do you choose to participate at these times?
What do you feel that you gain from participating in online conversations about teaching?

Appendix 9 – Extract from Transcribed Interview – Pilot

Interview 1 – KL

I: Interviewer K: KL

	Timings	Transcript	Screen Activity
	Part 1		
1.	0:00 – 0:27	I: And what we should notice now is that it is recording, cool! So we are going to make a start and we are going to have a conversation about the online spaces that you use to talk about teaching or professional matters. Just to remind you that we are focusing on social media for professional purposes, I don't want to see your personal account, that's fine. And if we hit anything that honestly you don't want to talk about then you can just say 'I don't want to talk about this' and we can move on.	KL's Twitter home feed displayed on screen (logged into previous to the interview starting).
2.	0:27 – 0:27	K: Ok	
3.	0:28 – 0:33	I: So, which online space do you use most to talk about teaching or professional matters	
4.	0:34 – 0:44	K: The one that I would use for professional things is Twitter, something that has been ..um .. you know I have been encouraged to use it a lot .. ummm	
5.	0:44 - 0:45	I: Ok. Encouraged by ..?	
6.	0:45 – 0:58	K: Encouraged by the Head, she uses Twitter a lot. She tweets regularly, and, um, there are quite a lot of departments in the school where they are putting up pupils work, and they are celebrating achievements //So, I er follow	
7.	0:58 – 0:58	I: //Ok	
8.	0:58 – 1:04	K: them just to be encouraging in a general sense umm	
9.	1:04 – 1:04	I: Ok	
10.	1:04 – 1:16	K: But in terms of picking up information from Twitter I tend to just have a read every week or so	
11.	1:16 – 1:16	I: Ok	
12.	1:16 – 1:39	K: The alerts come up relatively regularly so quite often I will find that I will be looking through the main kind of news feed screen and then not necessarily clicking on everything but I do tend to read things like the Teacher Toolkit posts and, um, obviously follow David Didau and um I don't use it as much as I did when I first started, that's one of the things that I think is quite … noticeable	
13.	1:39 – 1:39	I: Ok	
14.	1:39 – 1:42	K: I didn't find it //that useful	
15.	1:41 – 1:41	I: //Yeah ..//ok//	
16.	1:42 – 1:51	K: //Somethings I did but I found that it can be quite intrusive … into …downtime.	
17.	1:52 – 1:54	I: Ok. How so?	
18.	1:54 – 2:00	K: So, for example, where you've got your, if you have your alerts set and it's pinging at you when//	

19.	2:00 – 2:00	I: //Mmmm//	
20.	2:00 – 2:13	K: somebody is retweeting, because quite a lot of the people who are regular posters are doing it first thing in the morning or late at night you, you kind of end up with quite a lot of pings sort of around the 11 o clock slot //when you are trying to go to sleep	
21.	2:12 – 2:13	I: //[laughs]	
22.	2:13 – 2:18	K: So that bothers me, so I tend, I haven't quite figured out how to do the alerts on my phone	
23.	2:18 – 2:18	I: Umm hmm	
24.	2:18 – 2:32	K: So I don't tend to use that very much …um ..it, I will only really look at something if it is catching my eye, I don't tend to follow it for resources very often, although I like to look at them, I don't tend to download them.	
25.	2:32 – 2:34	I: Ok, why not?	
26.	2:34 – 2:46	K: Ummm, ok mostly because I use it on my phone. When I first started I did put things into my dropbox but, um, basically I'm technologically illiterate and have a dropbox//	
27.	2:44 – 2:46	I: //[laughs]//	
28.	2:46 – 2:50	K: // but I don't know how to get it onto the, don't know how to get it onto the desktop computer from the phone so [laughs] I'm rubbish	
29.	2:48 – 2:50	I: //[laughs]//	
30.	2:50 – 2:54	K: //Everything is just sat in the phone doing nothing//	
31.	2:53 – 2:54	I: //[laughs]	
32.	2:54 - 3:10	K: Umm, I found it really useful for links to, um, to, to videos that's what I, that's what I like the most. I like the links to the Research Ed videos, I watch those, occasionally, and I find those interesting. Umm	
33.	3:10 – 3:13	I: Ok. Why do you find those interesting?	
34.	3:13 – 3:26	K: Umm …Partly because people who are making those videos are very impassioned and partly because you can listen to their presentations like a radio programme while you are doing something else	
35.	3:26 – 3:26	I: Ok	
36.	3:27 – 3:37	K: Umm, and partly because, I think I spend a lot of time reading anyway, so I actually quite just like somebody talking to me	
37.	3:37 – 3:42	I: Umm hmm. So if you could just scroll down for me a second, you said there are things that catch your eye	K: Scrolls down Twitter feed
38.	3:42 – 3:43	K: Umm	
39.	3:43 – 3:52	I: Could you let me know what, show me some of the stuff that might catch your eye, is this were your feed, well it is your feed, but at the moment, if you were reading through this?	
40.	3:52 – 4:03	K:	K: Scrolls down Twitter feed
41.	4:03 – 4:08	K: You see there are lots of things that are coming up on here that I have not signed up to, umm//	
42.	4:08 – 4:08	I://Umm hmm	
43.	4:08 – 4:13	K: Which is quite interesting, that there's, I think it is because there are lots of people who sort of, that are I do follow, that are retweeting	
44.	4:14 – 4:14	I: Ok.	

45.	4:14 – 4:51	K: So I have been trying to get a bit of a sense of, umm, you know, what is out there and obviously I am following the most obvious people and umm when I first signed up I started getting a lot of alerts that tell you, you know, so and so follows this person, so I used that ..umm.. so I have quite a good I think a good con, coverage, but actually haven't quite yet got to know the styles or the stances of everybody that I do follow	K: Scrolls down. Pauses on a tweet from Tom Bennett Scrolls down. Pauses Scrolls down
46.	4:51 - 4:51	I: Umm hmm	
47.	4:52 – 5:00	K: So, I don't always necessarily whether I agree with somebody in general .. um ..	K: Scrolls down
48.	5:00 – 5:00	I: Ok	
49.	5:01 – 5:15	K: I'm still getting to know that, and I probably need to spend a bit of time … s… doing that if I'm going to find it useful …actually, like just to know what to s, what to tune out	K: Scrolls down. Pauses.
50.	5:15 – 5:15	I: Umm hmm	
51.	5:15 – 5:26	K:	K: Scrolls down and then scrolls up Twitter feed. Pauses
52.	5:20 – 5:26	I: Would you rather be reading the stuff from people whose stances you did agree with then? …Or …	
53.	5:26 – 5:38	K: Because everybody who posts is so convinced by their own point of view I tend to find that , you know, you, it is easy to be persuaded by that kind of //principled stance//	
54.	5:37 – 5:38	I: // Yeah//	
55.	5:38 – 5:58	K: And because I think a lot of the people that I follow then dot follow one another, because that is sort of self-generating, you end up with a sort of bias towards one point of view. So for example, most of the posts that I have read recently have been about Michaela School and they've been really positive about that//	K: Scrolls down. Pauses
56.	5:58 – 5:59	I:// [laughs]	
57.	5:59 – 6:15	K: //So this seems to be like this self-generating kind of positivity around that approach … erm … mostly because I think the people who have been recruited, they have been quite savvy about the people they have recruited to go and visit it and then they have written up kind of positive views and	
58.	6:14 – 6:15	I: Oh ok.	
59.	6:15 – 6:43	K: Wh, what they've seen …and … that's an interesting one because I still haven't quite decided how much I agree with that approach, I'm thinking about it at the moment and, erm, there are things there that are very persuasive and very, but they are not necessarily tried and te, tried and tested over a longer period of time and I think that is something that I want to think about, rather than just be influenced by so	K: Scrolls down briefly. Pauses
60.	6:43 – 6:43	I: Ummm	
61.	6:44 – 7:11	K: Erm, the temptation would be kind of say, 'oh you must do it like that', and I think that quite often, that's something that I am experiencing at SLT, is that there is that sense of … you … there's a lot of th, things that are done on Twitter. So, for example. One member of SLT said to me, 'you should do Twitter, it is somebody has done your thinking for you'…..so …	K: Scrolls down
62.	7:12 – 7:12	I: Wow	
63.	7:12 – 7:33	K: Yeah. Erm …which …was a flippant remark, obviously a throwaway remark, but there have been several things that have been done in SLT which seemed to be based off tweets and ... um … while the person who tweeted it may have the research base actually reading Twitter isn't a research base enough, er .. [laughs]	

64.	7:37 – 7:45	I: That's really interesting. So you feel like it can …sort of … tell you what is going on but you don't want to accept it …wholesale
65.	7:45 – 7:52	K: Yeah. And I think if you had enough time to follow every thread out
66.	7:52 – 7:72	I: Umm hmm
67.	7:52 – 8:31	K: You end up. You could end up with massive cog, you know cognitive overload, couldn't you ? You could end up following, er …, a train of thought and it takes you all over there is such a je, such a volume on the internet …um … and largely it is opinion, so, erm, while that is really interesting and has made me think about teaching differently, erm and has made me kind of relect on things, I don't think necessarily that someone else's opinion is better than mine. And, I er, I certainly don't like the idea that you would accept that somebody has done your thinking for you [laughs] //That really pissed me off!//

Appendix 10 – Extract from Transcribed Interview – Main Project

Interviewee: Beth

Interviewer: Kate Erricker

Length of interview: 42 minutes

Right, so if we make a start.

Mm mm.

So what we're going to talk about, just to re-cap, are collaborative, I'm calling them discussion social media spaces on-line, but when I say discussion, I mean it in kind of a different way. So when we're talking on-line, sometimes it means liking or re-tweeting or commenting or sharing resources, and these things are all still discussion.

Yeah.

So what I'm looking at really is your participation space … participation in on-line spaces to talk to other teachers.

Mm mm.

So, about whatever it is you feel like you talk about to develop professionally.

OK.

So if you could talk me through … I'm just going to go to full screen and press record … and this will let us record the screen here … and then that should be running … yeah, OK. So if we go to Google …

Yeah.

Which social … oh and I need to set up my phone, I always forget this bit, I need the personal hotspot on!

(laughs)

So which social media space do you use most to talk about teaching on-line?

Probably Facebook at the moment.

OK and why is that?

I think because I, well I commute to school by train …

Oh OK.

So when I'm sat at the station of an evening, I literally sit looking through my own, it kind of starts looking through my own account and what's going on, but it's all, I haven't really filtered things off, so it all comes up, everything that comes up is there on a kind of thing. So I kind of just glance, it's a bit of a browse really while I'm waiting for the train to turn up.

OK, so is that personal stuff and professional stuff?

Yeah, they're both on there.

All in there together?!

That's it! All in there together! And then literally I will browse through, and then when I've had enough of Facebook or think I've seen what's gone on in the day, I have a quick look, if the train hasn't turned up, I have a quick look in Twitter.

OK.

And again that's the same. I don't really have, I have no real personal stuff on my Twitter account at all, so that's all …

Professional …

Mm, yeah, it is kind of linked to professional, to it will be work stuff or I have trainline and things like that, because I just like to have a moan at South West Trains every evening!

OK! (both laugh)

It just seems that Twitter brings that out in someone doesn't it? Oh I don't, oh the train's late, oh let me tell … let me tell them how useless their service is kind of thing! So I kind of spend a lot of time doing that! But again, in that will be some of the things that are maybe, they're not on Facebook, so Paul Dix I'm now linked to on Twitter.

OK, so his behaviour stuff?

Yeah, so I have like the podcast stuff. Vespa Education's another one.

OK.

And then I must be, I don't know what I'm following, but there must be some other bits that I'm following …

Mm mm.

That I … because I … I very rarely … I do sort of go on Twitter, but I don't particularly like it, so I never particularly look at who I'm following.

OK.

But at some point I've obviously followed things or someone's re-tweeted something from somebody, and I think, oh actually that's really, I need to keep an eye on what they're doing.

Yeah.

So I then start to follow them. But I've probably got about, I don't know, there's probably a hundred people that I'm following.

Mm mm.

With very few people following me, because there's not many, there's probably one or two people from a personal account on that, but it's not, I don't use it in the same way, so I very rarely tweet anything.

OK.

The school, I have had an RE account for the school, when my phone kind of died a death and drowned, I got a new one and I just never really updated the school one onto it.

OK.

That had a lot more probably RE sites that I used to be looking at.

Mm mm.

But nothing in particular, so I don't, I haven't updated that, I haven't gone back on to it.

You don't miss it?

Not at all. I don't think I'd miss either of them if I never had them to be honest. Like I say, the only thing that stops me going away from the Facebook ones, and I could probably delete all of my friends off of that and I could just have the work ones, is that it is a way of interacting with staff around the world … around the world, around the country, who are doing things and see things. Because they will, lots of people obviously have a lot more time than I do because

they'll see something in the news, they'll link it straight to Fa … and it comes straight up on Facebook, this might be of interest in this.

Oh OK.

So a lot of the stuff they put on, they'll put like little … particularly RE, because it's so cultural.

Yeah.

It's so everything that's in the news could probably be used in an RE lesson.

Mm mm.

So lots of people will go, ooh read this article today on the BBC News, there it is … you know and they'll connect it to maybe a scheme of work, or say this could be useful with …

OK.

So you kind of get an idea, oh, like it saves me having to sometimes read the news to be honest!

OK, it just picks out the relevant bits?

You pick up, yeah, sometimes … but there's a lot of it that goes, there is a lot of it that goes on … But what you'd also get is someone might say, actually I've just done a scheme of work on this, I've put it onto the shared area, so there's a Google shared area, shared drive.

Mm mm.

So you can download, you can put stuff in, but you can also download items from that. So often I'll have a little look and think, well how are they doing that lesson?

OK.

Or is there a revision guide because that will save me a lot of time, being a one person band, like having to do it all, is there something I can just use quickly or adapt, so …

OK, so you're the only person in the RE department here.

Yeah.

And so this Facebook group is a way of almost expanding your department?

Absolutely, yeah. Yeah, it is absolute networking. So we have a … because we're part of an academy

…

Appendix 11 – Pilot Coding table: Emergent Codes from Coding of Interview with Kathy

Code	Example	Code	Example
Leadership encouragement	*Encouraged by the Head, she uses Twitter a lot. (KL: 4,6)*	**Persuasion**	*it is easy to be persuaded by that kind of //principled stance// (KL: 53)*
Department use	*there are quite a lot of departments in the school where they are putting up pupils work, and they are celebrating achievements (KL: 6)*	**Reflection**	*I think that is something that I want to think about, rather than just be influenced by so (KL: 59)*
Professional obligation	*So, I er follow… them just to be encouraging in a general sense umm (KL: 8)*	**Lack of reflection**	*One member of SLT said to me, 'you should do Twitter, it is somebody has done your thinking for you' (KL: 61)*
Social Media as news source	*picking up information from Twitter (KL: 10)*	**Lack of rigour**	*they are not necessarily tried and te, tried and tested over a longer period of time (KL: 59)*
Reading	*I tend to just have a read every week or so (KL:10)*	**Overwhelmed**	*You could end up with massive cog, you know cognitive overload, couldn't you (KL: 67)*
Alert prompts	*alerts come up relatively regularly (KL: 12)*	**Professional relevance**	*I might do a search for something about marking and feedback (KL: 81)*
Unintentional participation	*quite often I will find that I will be looking through the main kind of news feed screen (KL: 12)*	**Platform features (difficulty)**	*It took me a long time to figure out that that people were replying to things for example (KL: 97)*
Lack of use	*I don't use it as much as I did when I first started,(KL: 12)* *So I don't tend to use that very much (KL: 24)*	**Embarrassment**	*if it is just commenting on another per, you know, another colleague's opinion or comment, no …it's just … it just smacks of, I don't know, it's embarrassing (KL: 111)*
Lack of usefulness	*I didn't find it //that useful (KL: 14)*	**Pupil related**	*People from school have put up things that have been pupil centred, then I will like it (KL: 109)*
Intrusive	*I found that it can be quite intrusive … into …downtime. (KL: 16)*	**Supporting others**	*that kind of cheerleading each other's causes and, erm, developi, you know, developing a kind of community of support for other women (KL: 113)*
Irritation	*So that bothers me (KL: 22)* *I resent it if I spend more than about 20 minutes looking at it. (KL: 93)*	**Moral standpoint**	*if it is not a cause then I won't like it or retweet it, I wouldn't //do that (KL: 113)*
Eye-catching	*I will only really look at something if it is catching my eye (KL: 24)*	**Trivial**	*I wouldn't bother with that. It just seems … silly. (KL: 115)*
Useful	*I found it really useful for links to, um, to, to videos (Kl: 32)*	**Detachment**	*I like to be semi-detached (KL: 122)* *I like to have a fairly invisible online presence (KL: 122)*
(Perceived) Lack of tech proficiency	*basically I'm technologically illiterate (KL: 26)*	**Judgement**	*I'm just really critical of people and their online habits (KL: 122)*
Interest	*I like the links to the Research Ed videos, I watch those, occasionally, and I find those interesting (KL: 32)*	**Expressing an opinion**	*Yeah, I don't want to like something if I might not agree (KL: 142)*
Lack of choice	*there are lots of things that are coming up on here that I have not signed up to (KL: 41)*	**Lack of confidence**	*wouldn't necessarily … have confidence to … you know, to be blogging in the way that some of the people are putting things up there every day (KL: 150)*

Getting to know	*actually haven't quite yet got to know the styles or the stances of everybody that I do follow (KL: 45)*	**Not a writer**	*I don't tend to write things online, so, you know I wouldn't necessarily be putting things out there. I don't tend to write kind of professional essays (KL: 150)*
Forming an opinion	*I don't always necessarily know whether I agree with somebody (KL: 47)*	**Teacher's role**	*I just do the job, day in, day out …erm (KL: 150)*
Time	*I probably need to spend a bit of time … s… doing that if I'm going to find it useful (KL: 49)*	**Confidence**	*I would feel fully confident to, in a conversation with somebody say, why don't you try this (KL: 152)*
Bias	*I think a lot of the people that I follow then dot follow one another, because that is sort of self-generating, you end up with a sort of bias towards one point of view (KL: 53)*	**Conflict**	*because it is not in person, because it is, ummm, you know, because it is online there, there can be a level of, kind of, abuse and conflict that that you might not really enjoy. (KL: 170)*
Anonymity	*my kind of concern would be that actually people are hiding behind an online persona and that they, they are to some extent anonymous (KL:170)*	**Advice**	*I got involved in conversations on that, giving advice to NQTs, talking about what you can expect in terms of timetable (KL: 201)*
Collaboration	*I'm much more interested in co-operation and collaboration than I am in , kind of, you know, in winning// (KL: 174)*	**Considering alternative viewpoints**	*just thinking about how would a parent respond to something (KL: 212)*
Conversation	*I have been involved in online conversations on other sites. (KL: 184)*	**Security**	*Mumsnet was hacked last year, and, erm, people's passwords were stolen and so I've shut my account down because, sort of, it made it insecure (KL: 216)*
Receptive use	*I haven't got any followers and I think there is that, that sense that I'm using it receptively (KL: 188)*	**Confidentiality**	*you can actually, you can ask about things that would be confidential in school as long as you don't give, erm, kind of any, er, identifying information, (KL: 226)*
Personal use	*The one that I have used for talk online is Mumsnet and I have used that, I use that more personally*	**Honesty**	*you can get quite honest responses to that from people who feel strongly about it for whatever reason (KL: 228)*
Experience	*it's an experiential thing, it's not necessarily about pedagogy, it's more about what is your experience of day to day life (KL: 199)*	**Enjoyment**	*I do quite enjoy reading the sections about secondary education (KL: 230)*
Asking questions	*quite a lot of the people who are posting on there are asking questions of teachers (KL: 199)*	**Lack of interest**	*I don't find Twitter entertaining, I think it is really quite boring (KL: 262)*
Emotional support	*they are about people's worries and fears (KL: 203)*		

Appendix 12 - Main project coding table: emergent codes and themes

Theme	Code	Example		Theme	Code	Example
Factors that inhibit participation				Factors that motivate participation		
Work-Life Balance	Work life balance	*I'd be watching something on telly and I'd be sat there scrolling through Twitter feeds randomly (Tamsin)*		Advice and Guidance	Advice and guidance	*So I put it out to the group and asked what they felt about it (Isla)*
	Notifications	*First thing in the morning you'd get a notification through, or last thing at night, you'd get a notification through just saying, have you missed these, don't forget to check these, and it would list three or four different things from the school Twitter account (Ben)*			Emotional support	*I am like, ah, at least it is not just me, who is like struggling to be innovative right now (Susan)*
	Lack of time	*I haven't got the time, I just don't have the time, or the energy, to … to constantly be going on Twitter or Facebook or tweeting stuff (Bruce)*			Polls	*Lots of poll surveys, what are other people doing, what do other people find successful? (Maddie)*
	Overwhelming	*My Twitter account is logged into my school account, I just about read my school e-mail accounts, my school e-mails, let alone things people are saying on Twitter. (Tamara)*			New exams	*So you have no one to moderate with, particularly this new syllabus, new exam (Beth)*
	Time of use	*I have to kind of like make sure that I turn my notifications at that time in the morning, because she'll still message me at four am, saying can you do blah blah blah, and have you considered blah blah blah, with a list (Kara)*			Subject specific support	*My subject is RE and we have an EDUCAS … it's set up by teachers, it's not kind of official EDUCAS group but we have a Facebook group for teachers who are teaching EDUCAS GCSE course (Karen)*
	Digital labour	*That's what I mean by that culture. And like I said, people are putting their e-mail addresses, so somebody else is doing the work again for them, they're even sending it to them (Gillian)*		Resources	Resources	*So, right, here's some free resources … (Ursula)*
Security	Security	*They try and make it as secure as possible. I mean I know social media isn't secure, but you've got to be a member of the group and you've got to be proved to be a teacher at the school (Ben)*		School Accounts	School accounts	*There's a generic School page. I believe the English, maths and science department have also got their own sub-pages (Mary)*
	Safeguarding	*I think people are frightened of social media because … because of safeguarding, because of the grey areas (Debbie)*			Parental contact	*The parents post, that's what it's there, is the comments can … the parents can pose, and they can ask questions as well (Ursula)*

	School restrictions	*It's all blocked, all social media's blocked on the computers. (Debbie)*			School encouragement	*Encouraged by the Head, she uses Twitter a lot. She tweets regularly (Kathy)*
Judgement	Judgement	*Maybe someone judges it and it's … not seen as great. (Mary)*		Discussion	Discussion	*Some of the conversations that you see there, and they get a little bit heated, I feel quite voyeuristic actually! (Sophie)*
	Conflict	*There can be a level of, kind of, abuse and conflict that that you might not really enjoy. And I don't like conflict in real life and I certainly don't want to go online to find it (Kathy)*			Opinion	*it gives you more of an opinion of a … you're looking at teachers' perspectives from all over the world, so that's quite interesting to see the difference (Natalie)*
Problems Sharing Resources	Problems sharing resources	*Somebody had ripped one of the lessons that I'd posted on-line and was passing it off as their own. (Kara)*		Reading/ Spectating	Spectating	*I don't really talk too much with other sort of professionals in the same field as me. It is more kind of like I'll think 'Oh, that's a good idea' (Harry)*
Unfamiliarity	Unfamiliarity	*I don't really know what it can offer me (Gwen)*			Reading	*I like reading blogs, I love reading … people's opinions and theories on current methods (Dawn)*
	Lack of competence	*I don't really know enough how to use it in that respect (Isla)*			Following	*So like I follow, I do follow educational things and writers mainly as well (Mark)*
	Lack of guidelines	*There's no clear guidelines (Gwen)*		Networking	Promotion	*I think it's an idea that your reputation can extend between the four walls of your classroom, and within your institution. (Fran)*
	Lack of use	*I've never been part of a social forum group which has ever actually been any help. (Tom)*			Networking	*I use this to sort of like network between all the schools (Harry)*
Access to Face-to-Face Support	Access to face-to-face support	*So we can have a sort of an informal CPD if you like, and just steal ideas from each other, because we see each other so much (Mary)*		Isolation	Isolation	*I'm the only RE teacher here, so I don't have colleagues that I can kind of go to and just say, right, I've read this, does … and I've interpreted it like this but I don't know if I'm right (Karen)*
				Anonymity	Anonymity	*people who were actually in that situation because it is online, because it is anonymous they were very honest (Kathy)*

Appendix 13 – Thematic weighting table: themes by % proportion in the data

Theme	Component codes	No. participant interviews	Proportion coded (% of interviews)	Total proportion for theme (%)
Inhibiting Factors				
Work-Life Balance	Work life balance	12	45.28	240.95 total
	Notifications	7	12.22	
	Lack of time	11	23.2	
	Overwhelming	11	39.97	
	Time of use	17	43.74	
	Digital labour	16	76.62	
Security	Security	12	57.93	114.92 total
	Safeguarding	7	33.29	
	School restrictions	5	23.4	
Judgement	Judgement	12	57.9	79.79 total
	Conflict	7	21.89	
Problems Sharing Resources	Problems sharing resources	10	72.33	72.33 total
Unfamiliarity	Unfamiliarity	3	6.27	52.15 total
	Lack of competence	5	22.55	
	Lack of guidelines	7	7.87	
	Lack of use	9	15.51	
Access to Face-to-Face Support	Access to face-to-face support	8	18.51	18.51 total
Motivating Factors				
Advice and Guidance	Advice and guidance	12	39.15	234.52 total
	Emotional support	6	10.07	
	Polls	3	19.35	
	New exams	12	67.05	
	Subject specific support	15	98.9	
Resources	Resources	19	116.76	116.76 total
School Accounts	School accounts	17	58.61	97.67 total
	Parental contact	7	15.18	
	School encouragement	11	23.88	
Discussion	Discussion	15	76.22	86.86 total
	Opinion	6	10.64	
Reading/ Spectating	Spectating	12	55.14	84.51 total
	Reading	11	18.8	
	Following	8	10.57	
Networking	Promotion	7	40.02	63.67 total
	Networking	8	23.65	
Isolation	Isolation	10	20.13	20.13 total
Anonymity	Anonymity	7	10.84	10.84 total

References

AMPOFO, L., COLLISTER, S., O' LOUGHLIN, B., & CHADWICK, A. (2015) Text Mining and Social Media: When Quantitative Meets Qualitative and Software Meets People IN Halfpenny, P., & Proctor, R., eds. *Innovations in Digital Research Methods*. London: SAGE, 161-192.

ANDERSON, R. & JIROTKA, M. (2015) Ethical Praxis in Digital Social Research IN Halfpenny, P., & Proctor, R. *Innovations in Digital Research Methods*. London: SAGE, 271-296.

AoIR (2012) *Ethical Decision-Making and Internet Research Recommendations from the AoIR Ethics Working Committee* (Version 2.0). Available from: http://www.aoir.org/reports/ethics2.pdf. [Accessed 3rd August 2016]

AVALOS, B. (2011) Teacher Professional Development in Teaching and Teacher Education Over Ten Years. *Teaching and Teacher Education*, 27, 10-20.

BARBER, M. & MOURSHED, M. (2007) *How The World's Best-Performing Schools Systems Come Out on Top*. McKinsey & Company. Available from: http://mckinseyonsociety.com/how-the-worlds-best-performing-schools-come-out-on-top/ [Accessed 19 April 2017].

BANNISTER, N. (2015) Reframing Practice: Teacher Learning Through Interactions in a Collaborative Group, *Journal of the Learning Sciences*, 24 (3), 347-372.

BAYM, N. (2010) *Personal connections in the digital age*, London: Wiley.

BELL, P., TZOU C., BRICKER, L. & BAINES, A. (2012) Learning in Diversities of Structures of Social Practice: Accounting for How, Why and Where People Learn Science. *Human Development,* 55, 269–284.

BISSESSAR, C. (2014) Facebook as an Informal Teacher Professional Development Tool. *Australian Journal of Teacher Education*, 39 (2), 121-135.

BLOOR, M., FRANKLAND, J., THOMAS, M. AND ROBSON, K. (2001) *Focus groups in social research*. Sage.

BOYD, D. (2007) Social Network Sites: Public, Private, or What? *Knowledge Tree*, *13* (1), 1-7.

BOYD, D. (2010) Social network sites as networked publics: Affordances, dynamics, and implications. IN Papacharissi, Z. *A Networked Self,* Routledge, 47-66.

BOYD, D., GOLDER, S. & LOTAN, G. (2010) *Tweet, Tweet, Retweet: Conversational Aspects of Retweeting On Twitter*. 43rd Hawaii International Conference, IEEE, 1-10.

BRAUN, V., & CLARKE, V. (2006) Using Thematic Analysis in Psychology. *Qualitative Research in Psychology*, 3 (2), 77-101.

BRICKER, L. & BELL, P. (2012) ''Godmode Is His Video Game Name'': Situating Learning and Identity in Structures of Social Practice. *Cultural Studies of Science Education*, 7, 883–902.

BRINKMANN, S. & KVALE, S. (2015*) InterViews: Learning the Craft of Qualitative Research Interviewing*, 3rd ed. London: SAGE.

BROWN, D. (1992) The Development of Strategic Classrooms in Two Secondary Schools. Available from: http://files.eric.ed.gov/fulltext/ED378169.pdf. [Accessed 21 September 2017].

BRYANT D., LINAN-THOMPSON, S., UGEL, N. & HAMFF, A. (2001) The Effects of Professional Development for Middle Schools General and Special Education Teachers on Implementation of Reading Strategies in Inclusive Content Area Classes. *Learning Disability Quarterly,* 24, 251-264.

BUCHER, E. & FIESELER, C. (2017) The flow of digital labor, New Media & Society, 19(11), 1868–1886.

BURNAP, P., RANA, O., WILLIAMS, M., HOUSLEY, W., EDWARDS, A. (2014) COSMOS: Towards an Integrated and Scalable System for Analyzing Social Media on Demand. International Journal of Parallel, Emergent and Distributed Systems.

BUTLER, J. (1988) Performative Acts and Gender Constitution: An Essay in Phenomenology and Feminist Theory. *Theatre Journal*, 40 (4), 519-531.

CARPENTER, J. & KRUTKA, D. (2014a) Chat It Up. *Learning & Leading with Technology*, 41 (5), 10-15.

CARPENTER, J. & KRUTKA, D. (2014b) How and Why Educators Use Twitter: A Survey of the Field. *Journal of Research on Technology in Education*, 46 (4), 414-434.

CARPENTER, J. & KRUTKA, D. (2015) Engagement through Microblogging: Educator Professional Development via Twitter. *Professional Development in Education*, 41 (4), 707-728.

CHEN, A. (2018) Timeline Drawing and the Online Scrapbook: Two Visual Elicitation Techniques for a Richer Exploration of Illness Journeys. *International Journal of Qualitative Methods*, 17 (1), 1-13.

CLARÀ, M., KELLY, N., MAURI, T. & DANAHER, P. (2017) Can Massive Communities of Teachers Facilitate Collaborative Reflection? Fractal Design as a Possible Answer. *Asia-Pacific Journal of Teacher Education*, 45 (1), 86-98.

CLARK, C. & FLORIO-RUANE, S. (2001) Conversation as Support for Teaching in New Ways IN CLARK, C. eds. *Talking shop: Authentic Conversation and Teacher Learning*, New York: Teachers College Press, 1-16.

CLARKE, A., TRIGGS, V. & NIELSEN, W. (2014) Cooperating Teacher Participation in Teacher Education: A Review of the Literature. Review of Educational Research, 84 (2), 163-202.

COHEN, L., MANION, L. & MORRISON, K. (2011) *Research Methods in Education 7th Ed*. London: Routledge.

COLEMAN, M. & EARLEY, P. (2005) *Leadership & Management in Education*, Oxford: Oxford University Press.

COLLIE, P. & CASSIDY, L. (2014) *Use of Social Media: Secondary. Schoolzone*. Available from: http://www.schoolzone.co.uk/schools/NCres/RC14ES_Social_Media_Report.pdf. [Accessed 4 May 2017].

COOLAHAN, J. (2002), *Teacher Education and the Teaching Career in an Era of Lifelong Learning*, OECD Education Working Papers, No. 2.

CORDINGLEY, P., BELL, M., THOMASON, S. & FIRTH, A. (2003) *The Impact Of Collaborative Continuing Professional Development (CPD) on Classroom Teaching and Learning. Review: How Do Collaborative and Sustained CPD and Sustained but not Collaborative CPD Affect Teaching and Learning*, EPPI Centre. University of London.

CORDINGLEY, P., HIGGINS, S., GREANY, T., BUCKLER, N., COLES-JORDAN, D., CRISP, B., SAUNDERS, L. & COE, R. (2015) *Developing Great Teaching: Lessons from the International Reviews into Effective Professional Development,* Teacher Development Trust.

CORDINGLEY, P., HIGGINS, S., GREANY, T., CRISP, B., SELEZNYOV, S., BRADBURY, M. & PERRY, T. (2018) *Developing Great Subject Teaching: Rapid Evidence Review of Subject Specific Continuing Professional Development in the UK,* Teacher Development Trust.

CORMIER, D. (2008) Rhizomatic Education: Community as Curriculum. Innovate: Journal of Online Education, 4 (5), 2-8.

CRARY, J. (2013) *24/7*, London: Verso.

CRILLY, N., BLACKWELL, A. & CLARKSON, P. (2006) Graphic elicitation: using research diagrams as interview stimuli. *Qualitative Research*, 6, 341–366.

CRESWELL, J. & CRESWELL, J. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches*, *4th Ed,* London: Sage

CROASMUN, J. & OSTROM, L. (2011) Using Likert-Type Scales in The Social Sciences. *Journal of Adult Education*, 40 (1), 19-22.

CROOK, C. & LEWTHWAITE, S. (2010) Technologies for formal and informal learning. *International Handbook of Psychology in Education.* Emerald, 435-461.

CRYSTAL, D. (2004) *Language and the Internet*, Cambridge: Cambridge University Press.

DAVIS, K. (2015) Teachers' Perceptions of Twitter for Professional Development. *Disability and Rehabilitation*, 37 (17), 1551-1558.

DAY, C. (1999) *Developing Teachers: The Challenges of Lifelong Learning*, London: Falmer Press.

DENSCOMBE, M. (2003) *The Good Research Guide for Small Scale Research Projects,* Maidenhead: Open University Press.

DFE (2010) *The Importance of Teaching in Schools*, London: DfE. Available from: https://www.gov.uk/government/publications/the-importance-of-teaching-the-schools-white-paper-2010 [Accessed 19 April 2017]

DFE (2012) *Teachers Standards*, London: DfE. Available from: http://webarchive.nationalarchives.gov.uk/20130401151715/https:/www.education.gov.uk/publications/eOrderingDownload/teachers%20standards.pdf [Accessed 19 April 2017].

DFE (2015) *A World-Class Teaching Profession: Government Consultation*. London: DfE. Available from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/430227/150319_WCTP_response.pdf [Accessed 21 November 2017].

DFE (2016a) *Standard for Teachers' Professional Development*. London: DfE. Available from: https://www.gov.uk/government/publications/standard-for-teachers-professional-development [Accessed 1 October 2017].

DFE (2016b) *Standard for Teachers' Professional Development: Implementation Guidance for School Leaders, Teachers, and Organisations that Offer Professional Development for Teachers*. London: DfE. Available from: https://www.gov.uk/government/publications/standard-for-teachers-professional-development (Accessed 1 October 2017].

DfE (2017) School Workforce in England: November 2016. London: DfE. Available from: https://www.gov.uk/government/statistics/school-workforce-in-england-november-2016 [Accessed 21 November 2017].

DFE (2017) Teacher Workload Survey 2016 Research Report. London: DfE. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/592499/TWS_2016_FINAL_Research_report_Feb_2017.pdf [Accessed 21 February 2018]

DfE (2018) School Workforce in England: November 2017. London: DfE. Available from: https://www.gov.uk/government/statistics/school-workforce-in-england-november-2017 [Accessed 6 September 2018].

DFEE (2001) *Learning and Teaching: A Strategy for Professional Development*. London: DFEE.

DREIER, O. (1999) Personal trajectories of Participation across Contexts of Social Practice. *Outlines. Critical Practice Studies*, 1(1), 5-32.

DREIER, O. (2003) Learning in Personal Trajectories of Participation IN Stephenson, N., Radtke, H., Jorna, R. & Stam, H. eds. *Theoretical psychology: Critical contributions*, 20-29.

DREIER, O. (2008) Learning in Structures of Social Practice IN Nielsen, K., Brinkmann, S., Elmholdt, C., Tanggaard, L., Musaeus, P. & Kraft, G. eds. *A Qualitative Stance: Essays in Honor of Steinar Kvale*, Aarhus Universitetsforlag, 85-96.

DREIER, O. (2009) Persons in Structures of Social Practice. *Theory & Psychology*, *19* (2), 193-212.

EDWARDS-GROVES, C. (2013) Creating Spaces for Critical Transformative Dialogues: Legitimising Discussion Groups as Professional Practice. *Australian Journal of Teacher Education, 38* (12), 17-34.

ELLISON, N. & BOYD, D. (2013). Sociality through Social Network Sites. In Dutton, W. Ed. *The Oxford Handbook of Internet Studies*. Oxford: Oxford University Press, 151-172.

ERAUT, M. (2004) Informal learning in the Workplace. *Studies in Continuing Education*, 26 (2), 247-273.

FAIRCLOUGH, N. (2012) Critical Discourse Analysis IN Gee, J. & Handford, M. eds. *The Routledge Handbook of Discourse Analysis*. London: Routledge, 9-20.

FAN, W. & YAN, Z. (2010) Factors Affecting Response Rates of the Web Survey: A Systematic Review. *Computers in Human Behavior*, 26 (2), 132-139.

FIELDING, N., LEE, R. & BLANK, G. (2008) *The Sage handbook of Online Research Methods*. London: SAGE.

FLICK, U. (2009) *An Introduction to Qualitative Research, 4th Ed*. London: SAGE.

FORTE, A., HUMPHREYS, M. & PARK, T. (2012) Grassroots Professional Development: How Teachers Use Twitter. Available from: http://www.aaai.org/ocs/index.php/ICWSM/ICWSM12/index [Accessed 9 May 2017].

FOX, A. & BIRD, T. (2017) The Challenge To Professionals of Using Social Media: Teachers in England Negotiating Personal-Professional Identities. Education and Information Technologies, 22 (2), 647-675.

FUCHS, C., HOFKIRCHNER, W., SCHAFRANEK, M., RAFFL, C., SANDOVAL, M. & BICHLER, R. (2010) Theoretical Foundations of the Web: Cognition, Communication, and Co-Operation. Towards an Understanding of Web 1.0, 2.0, 3.0. *Future Internet*, 2 (1), 41-59.

GARRISON, D. & ANDERSON, T. (2003) *E-Learning in the 21st Century*. Routledge: Falmer.

GARRISON, D. & ARBAUGH, J. (2007) Researching the Community of Inquiry Framework: Review, Issues, and Future Directions. *The Internet and Higher Education*, *10* (3), 157-172.

GEE, J. (2004) *Situated Language and Learning: A Critique of Traditional Schooling*. London: Routledge.

GEE, J. (2014) *An Introduction to Discourse Analysis: Theory and Method*. London: Routledge.

GIBSON, S., OLIVER, L. & DENNISON, M. (2015) *Workload Challenge: Analysis of teacher consultation responses*. Department for Education.

GIDDENS, A. (1991) *Modernity and Self-Identity: Self and Society in the Late Modern Age*. Stanford: Stanford University Press.

GILLEN, J. & MERCHANT, G. (2013) Contact Calls: Twitter as a Dialogic Social and Linguistic Practice. *Language Sciences*, 35, 47-58.

GINSBERG, J., MOHEBBI, M., PATEL, R., BRAMMER, L. & SMOLINSKI, M. (2009) Detecting Influenza Epidemics Using Search Engine Query Data. *Nature*, 457, 1012–1014.

GONZALEZ-ARNAL, S., JAGGER, G. & LENNON, K. eds. (2012) *Embodied Selves*. London: Palgrave Macmillan.

GOODYEAR, V. CASEY, C. & KIRK, D. (2014) Tweet Me, Message Me, Like Me: Using Social Media to Facilitate Pedagogical Change Within an Emerging Community of Practice. *Sport, Education and Society*, 19 (7), 927 – 943.

GREENBANK, P. (2003) The Role Of Values In Educational Research: The Case For Reflexivity. *British Educational Research Journal*, 29 (6), 791-801.

GRIFFITHS, M. (1995) Feminisms and the Self: The Web of Identity. London: Routledge.

GURSTEIN, M. (2008) *What is Community Informatics?* Polimetrica: Monza.

HAIGH, N. (2005) Everyday Conversation as a Context for Professional Learning and Development. *International Journal for Academic Development*, 10 (1), 3-16.

HAMILTON, H. (2015) Discourse and Aging IN Schiffrin, D. Tannen,D. & Hamilton, H. *The Handbook of Discourse Analysis,* Oxford: Blackwell, 568-589.

HAMMERSLEY, M. (1984) Staffroom news IN: Hargreaves, A., And Woods, P., eds. *Classrooms and Staffrooms: Sociology of Teachers and Teaching*. London: Open University Press, 230–214.

HARN, R. (2017). *The Visual Language of Emojis: A Study on College Students' Social Support Communication in Online Social Networks* (Doctoral dissertation, University of Kansas).

HOLMES, B. (2013) School Teachers' Continuous Professional Development in an Online Learning Community: Lessons from a Case Study of an etwinning Learning Event. *European Journal of Education*, 48 (1), 97-112.

HOLMES, K., PRESTON, G., SHAW, K., & BUCHANAN, R. (2013). 'Follow' Me: Networked Professional Learning for Teachers. *Australian Journal of Teacher Education*, 38 (12), 55-65.

HOOLEY, T., MARRIOTT, J. & WELLENS, J. (2012) *What Is Online Research?* London: Bloomsbury.

HRASTINSKI, S. (2008) What is Online Learner Participation? A Literature Review. *Computers & Education*, 51 (4), 1755-1765.

HRASTINSKI, S. (2009) A theory of Online Learning as Online Participation. *Computers & Education,* 52 (1), 78-82.

HUGHES, K. (2014). 'Work/place'media: locating laboring audiences. *Media, Culture & Society*, 36 (5), 644-660.

HUGHES, K. (2018). The use of Twitter for continuing professional development within occupational therapy. *Journal of Further and Higher Education,* 1-13.

INDEPENDENT TEACHER WORKLOAD REVIEW GROUP (ITWRG) (2016) Eliminating unnecessary workload around planning and teaching resources.

JEWITT, C. (2013) Multimodal Methods for Researching Digital Technologies IN Price, S., Jewitt, C. & Brown, B. eds. *SAGE Handbook of Digital Technology Research*. London: SAGE, 250-265.

JOHNSON, J. & WELLER, S. (2002) Elicitation techniques for interviewing. *Handbook of interview research: Context and method*, 491-514.

KELLY, N., & ANTONIO, A. (2016) Teacher Peer Support in Social Network Sites. *Teaching and Teacher Education,* 56, 138-149.

KENNEDY, A. (2005) Models of Continuing Professional Development: a Afor analysis. *Journal of In-service Education*, 31 (2), 235-250.

KENNEDY, A. (2011) Collaborative Continuing Professional Development (CPD) for Teachers in Scotland: Aspirations, Opportunities and Barriers, *European Journal of Teacher Education*, 34 (1), 25-41.

KHOO, E. AND FORRET, M. (2011) Evaluating an Online Learning Community: Intellectual, Social And Emotional Development and Transformations. *Waikato Journal of Education*, 16 (1), 123-141.

KHOSRAVINIK, M. & UNGER, J. (2015) *Critical discourse studies and social media : power, resistance and critique in changing media ecologies IN* Wodak, R., & Meyer, M. eds.*Methods of Critical Discourse Studies*, London: SAGE, 215-243.

KINCHIN, G. & BRYANT, L. (2015) Using Social Media within Physical Education Teacher Education. *Strategies*, 28:5, 18-21.

KOHLBACHER, F. (2006) The Use of Qualitative Content Analysis in Case Study Research. Qualitative Sozialforschung/Forum: Qualitative Social Research, 7 (1). Available from: http://www.qualitative-research.net/index.php/fqs/article/view/75 [Accessed 31 August 2017].

KRUTKA, D. & CARPENTER, J. (2016) Participatory Learning Through Social Media: How and Why Social Studies Educators Use Twitter. *Contemporary Issues in Technology and Teacher Education*, 16 (1), 38-59.

LAFUENTE, M. (2017) Getting Looped in to the Web: Characterizing Learning Processes and Educational Responses. *Interactive Learning Environments*, 25 (1), 72-84.

LANCASTER, L. (2007) Representing the Ways of the World: How Children Under Three Start to Use Syntax in Graphic Signs. *Journal of Early Childhood Literacy,* 7 (2). 123-154.

LAVE, J. (2009) The Practice of Learning IN Illeris, K. (ed) *Contemporary Theories of Learning*. London: Routledge, 200-208.

LAVE, J. & WENGER, E. (1991) *Situated learning: Legitimate peripheral participation*. New York: Cambridge.

LEWTHWAITE, S. (2011) *Disability 2.0, student dis/connections: a study of student experiences of disability and social networks on campus in higher education* (Doctoral dissertation, University of Nottingham). Retrieved from: http://eprints.nottingham.ac.uk/12406/

LINDGREN, S. (2017) *Digital media and society*, London: Sage.

LIPMAN, P. (1997) Restructuring in Context: A Case Study of Teacher Participation and the Dynamics of Ideology, Race, and Power. *American Educational Research Journal*, 34, (1), 3-37.

LITTLETON, K. & WHITELOCK, D. (2005) The Negotiation and Co-Construction of Meaning and Understanding within a Postgraduate Online Learning Community. *Learning, Media and Technology*, 30 (2), 147–164.

LIU, M. & INCHAUSTI, N. (2017) Improving Survey Response Rates: The Effect of Embedded Questions in Web Survey Email Invitations. *Survey Practice*, 10 (1), 1-6.

LU, Y. & CURWOOD, J. (2015) Update Your Status: Exploring Pre-Service Teacher Identities in an Online Discussion Group. *Asia-Pacific Journal of Teacher Education*, 43 (5), 438-449.

LYLE, J. (2002) Stimulated Recall: a Report on its Use in Naturalistic Research*. British Educational Research Journal,* 29 (6), 861-878.

MACIÀ, M. AND GARCÍA, I. 2016. Informal online communities and networks as a source of teacher professional development: A review. *Teaching and Teacher Education*, *55*, 291-307.

MADIANOU, M. & MILLER, D. (2012) *Migration and New Media.* London: Routledge.

MAGUIRE, M. AND DELAHUNT, B. (2017). Doing a thematic analysis: A practical, step-by-step guide for learning and teaching scholars. *AISHE-J: The All Ireland Journal of Teaching and Learning in Higher Education*, 9 (3), 3351-33513.

MARKOVÁ, I., LINDELL, P., GROSSEN, M. & SALAZAR ORVIG, A. (2007) *Dialogue in Focus Groups: Exploring Socially Shared Knowledge.* London: Equinox.

MASSEY, D. (1999) Spaces of Politics IN Massey, D., Allen, J. & Sarre, P. eds. *Human Geography Today* Cambridge: Polity Press, 279-294.

MAVERS, D. (2012) *Transcribing Video*. NCRM MODE Working Paper. University of London.

MAWHINNEY, L. (2008) Laugh so You Don't Cry: Teachers Combating Isolation in Schools Through Humour and Social Support. *Ethnography and Education*, 3 (2), 195-209.

MAWHINNEY, L. (2010). Let's Lunch and Learn: Professional Knowledge Sharing in Teachers' Lounges and other Congregational Spaces. *Teaching and Teacher Education*, 26 (4), 972-978.

MCCULLOCH, J., MCINTOSH, E. & BARRETT, T. (2011) Tweeting for Teachers. Pearson Centre for Policy and Learning. Available from: http://www.itte.org.uk/sites/default/files/Tweetingforteachers.pdf [Accessed 19 April 2017].

MCGREGOR, J. (2003) Making spaces: Teacher Workplace Topologies. *Pedagogy, Culture and Society*, 11 (3), 353-377.

MEISSEL, K., PARR, J. & TIMPERLEY, H. (2016) Can Professional Development of Teachers Reduce Disparity in Student Achievement? *Teaching and Teacher Education*, 58, 163-173.

MERCER, N. (2000) *Word and Minds*. London: Routledge.

MESTYÁN, M., YASSERI, T. & KERTÉSZ, J. (2013) Early Prediction of Movie Box Office Success Based on WikipediaActivity Big Data. *PloS One*, *8* (8). Available from: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0071226 [Accessed 31 August 2017].

MICKLEWRIGHT, J., JERRIM, A., VIGNOLES, A., JENKINS, A., ALLEN, R., ILIE, S., BELLARBRE, E., BARRERA, F. & HEIN, C. (2013) *Teachers in England's Secondary Schools: Evidence from TALIS 2013*. DfE.

MILLER, D., COSTA, E., HAYNES, N., MCDONALD, T., NICOLESCU, R., SINANAN, J., SPYER, J., VENKATRAMAN, S. & WANG, X., (2016) *How the World Changed Social Media*. UCL Press. Available from: http://www.oapen.org/search?identifier=604151. [Accessed 3 August 2016].

MILLER, D. (2016) *Social Media in an English Village*. Available from: http://www.ucl.ac.uk/ucl-press/browse-books/social-media-in-an-english-village-. [Accessed 23 September 2017].

MURPHY, J. (2015) Survey Methods: Challenges and Opportunities IN Halfpenny, P., & Proctor, R., eds. *Innovations in Digital Research Methods*. London: SAGE, 85-104.

NATCEN (2014) Researchers Using Socia lMedia; Users' Views. London: NatCen. Available: http://www.natcen.ac.uk/media/282288/p0639-research-using-social-media-report-final-190214.pdf [Accessed 9 November 2018]

NESPOR, J. (1994) *Knowledge in Motion*. London: Falmer.

NIND, M., KILBURN, D. AND WILES, R. (2015) Using video and dialogue to generate pedagogic knowledge: teachers, learners and researchers reflecting together on the pedagogy of social research methods. *International Journal of Social Research Methodology*, 18 (5), 561-576.

NGUYEN, N., MCFADDEN, A., TANGEN, D. & BEUTEL, D. (2013*) Video-Stimulated Recall Interviews in Qualitative Research*. Paper presented at AARE (Australian Association for Research in Education) Conference, 2013.

ORLAND-BARAK, L. (2006) Convergent, Divergent and Parallel Dialogues: Knowledge Construction In Professional Conversations, *Teachers and Teaching*, 12 (1), 13-31.

ORLAND-BARAK, L & TILLEMA, H. (2006) The 'Dark Side of The Moon': A Critical Look at Teacher Knowledge Construction in Collaborative Settings, *Teachers and Teaching*, 12 (1), 1-12.

O'SULLIVAN, M. (2001) Communicative Approaches to Teaching English in Namibia: The Issue of Transfer of Western Approaches to Developing Countries. *International Journal of Early Years Education*, 9 (1), 51-61.

O'SULLIVAN, M. (2002) Action Research and The Transfer Of Reflective Approaches to In-Service Education And Training (INSET) For Unqualified And Underqualified Primary Teachers in Namibia. *Teaching and Teacher Education*, 18 (5), 523-539.

OWEN, N., FOX, A. & BIRD, T. (2016) The Development of a Small Scale Survey Instrument of UK Teachers to Study Professional Use (And Non-Use) of and Attitudes to Social Media. *International Journal of Research & Method in Education*, 39 (2), 170-193.

PAYLER, J., MEYER, E. & HUMPHRIES, D. (2007) Theorizing Interprofessional Pedagogic Evaluation: Framework for Evaluating the Impact of Interprofessional Continuing Professional Development on Practice Change. *Learning in Health and Social Care*, 6 (3), 156-169.

PAYLER, J. & GEORGESON, J. (2013) Personal Action Potency: Early Years Practitioners Participating in Interprofessional Practice in Early Years Settings*. International Journal of Early Years Education*, 21(1), 39-55.

PAYLER, J., GEORGESON, J. & WONG, S. (2016) Young Children Shaping Interprofessional Practice in Early Years Settings: Towards a Conceptual Framework for Understanding Experiences and Participation. *Learning, Culture and Social Interaction*, 8, 12–24.

PEDERSEN, S. AND LUPTON, D. (2016) 'What are you feeling right now?'communities of maternal feeling on Mumsnet. *Emotion, Space and Society*.

PEDERSEN, S. & SMITHSON, J. (2013) Mothers With Attitude—How the Mumsnet Parenting Forum Offers Space for New Forms Of Femininity To Emerge Online. *Women's Studies International Forum*,38, 97-106.

PETROVČIČ, A., PETRIČ, G. & MANFREDA, K. (2016) The Effect of Email Invitation Elements on Response Rate in a Web Survey Within an Online Community. *Computers in Human Behavior*, *56*, 320-329.

PEW RESEARCH CENTER (2016) "*Smartphone Ownership and Internet Usage Continues to Climb in Emerging Economies*" Available from: http://www.pewglobal.org/files/2016/02/pew_research_center_global_technology_report_final_february_22__2016.pdf [Accessed 20 April 2017].

PREECE, J., NONNECKE, B. & ANDREWS, D. (2004) The Top Five Reasons For Lurking: Improving Community Experiences for Everyone. *Computers in Human Behavior,* 20 (2), 201-223.

PREECE, J. & SHNEIDERMAN, B. (2009) The Reader-to-Leader Framework: Motivating Technology-Mediated Social Participation*, AIS Transactions on Human-Computer Interaction*, 1 (1), 13-32.

PRIMORAC, J. (2016) Towards more insecurity?, in: J. Webster & K. Randle (Eds) *Virtual workers and the global labour market* (London, Palgrave Macmillan), 161–178.

PURDAM. K., & ELLIOT, M. (2015) The Changing Social Science Data Landscape IN Halfpenny, P. & Proctor, R. eds. *Innovations in Digital Research Methods*. London: SAGE, 25-58.

RAINIE, L. & WELLMAN, B. (2012) *Networked: The New Social Operating System*, London: MIT Press.

REDA, M. (2009) *Between Speaking and Silence: A Study of Quiet Students*. New York: SUNY Press.

REHM, M. & NOTTEN, A. (2016) Twitter as an Informal Learning Space for Teachers!? The Role of Social Capital in Twitter Conversations Among Teachers. *Teaching and Teacher Education*, 60, 215-223.

RENSFELDT, A., HILLMAN, T. AND SELWYN, N. (2018). Teachers 'liking'their work? Exploring the realities of teacher Facebook groups. *British Educational Research Journal*, *44* (2), 230-250.

RICHTER, D., KUNTER, M., KLUSMANN, U., LÜDTKE, O. & BAUMERT, J. (2011) Professional Development Across The Teaching Career: Teachers' Uptake of Formal and Informal Learning Opportunities. *Teaching And Teacher Education*, 27 (1), 116-126.

RITCHIE, J., LEWIS, J., MCNAUGHTON NICHOLLS, C., & ORMSTON, R. (2014) *Qualitative Research Practice: A Guide For Social Science Students And Researchers*. London: SAGE.

ROGERS, R. (2014) Debanalising Twitter: The Transformation of an Object of Study IN Weller, K., Bruns, A., Burgess, J., Marht, M. & Puschmann, C., eds. Twitter & Society, New York: Peter Lang.

RÖNKKÖ, K., URINBOYEV, R., SVENSSON, M., SVENSSON, L. AND CARLSSON, H. (2017) Literature review of social media in professional organisations 2000-2015: work, stress, power relations, leadership, librarians, teachers, and social workers. Available at: http://www.divaportal.org/smash/get/diva2:1095473/FULLTEXT01.pdf [Accessed 4 November 2018]

ROSS J., ROLHEISER, C .& HOGABOAM-GRAY, A. (1999) Effects of Collaborative Action Research on The Knowledge of Five Canadian Teacher-Researchers. *Elementary School Journal*, 99, 255-275.

RUTHERFORD, C. (2013) Facebook as a Source of Informal Teacher Professional Development. *In Education*, 16 (1), 60-75.

SAVAGE, M. (2015) Sociology and the Digital Challenge Halfpenny, P. & Proctor, R. eds. *Innovations in Digital Research Methods*. London: SAGE, 297-310.

SCHIFFRIN, D. (2015) Discourse Markers, Language, Meaning and Context IN Schiffrin, D. Tannen, & H. Hamilton. *The Handbook of Discourse Analysis*. Oxford: Blackwell, 54-75.

SCHOLZ, T. (2013) Digital labour (New York, Routledge).

SCHOENEBECK, S., ELLISON, N., BLACKWELL, L., BAYER, J. AND FALK, E. (2016) Playful backstalking and serious impression management: How young adults reflect on their past identities on Facebook. In Proceedings of the 19th ACM conference on computer-supported cooperative work & social computing, 1475-1487.

SCHREIER, M. (2012) Qualitative Content Analysis in Practice. London: SAGE

SCHWARTZ H., EICHSTAEDT J., KERN M., DZIURZYNSKI L. & RAMONES S. (2013) Personality, Gender, and Age in the Language of Social Media: The Open-Vocabulary Approach. Available from: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0073791 [Accessed 31 August 2017].

SCOTT, D. (2010) *The New Rules of Marketing and PR: How to Use Social Media, News Releases, Online Video, & Viral Marketing to Reach Buyers Directly*. New Jersey: Wiley.

SELLEN, P., 2016. Teacher workload and professional development in England's secondary schools: insights from TALIS: 10 October 2016.Available: http://dera.ioe.ac.uk/27930/1/TeacherWorkload_EPI.pdf [Accessed 9 November 2018].

SHULLENBERGER, G. (2014) The rise of the voluntariat. Jacobin, May. Available online at: www.jacob inmag.com/2014/05/the-rise-of-the-voluntariat/.[Accessed 9 November 2018]

SI'ILATA, R., DREAVER, K., PARR, J.M., TIMPERLEY, H. & MEISSEL, K. (2012) *Tula'i Mai! Making a Difference to Pasifika Student Achievement in Literacy. Literacy Professional Development Project 2009–2010.* Research Component Pasifika study. University of Auckland.

SILVERMAN, D. (2014) *Interpreting Qualitative Data.* London: Sage.

SLOAN, L., MORGAN, J., BURNAP, P., & WILLIAMS, M. (2015) Who Tweets? Deriving the Demographic Characteristics of Age, Occupation and Social Class from Twitter User Meta-Data. PLoS ONE, 10 (3). Available from: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0115545 [Accessed 31 August 2017].

SRIVASTAVA, P. & HOPWOOD, N. (2009) A Practical Iterative Framework for Qualitative Data Analysis. *International Journal of Qualitative Methods*, 76–84.

STATISTA (2017) *Most Famous Social Network Sites Worldwide As Of April 2017, Ranked By Number Of Active Users (in Millions.)* Available from: https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/ [Accessed 20 April 2017].

STEINKUEHLER, C., & WILLIAMS, D. (2006) Where Everybody Knows Your (Screen) Name: Online Games as "Third Places". *Journal of Computer-Mediated Communication*, 11 (4),885-909.

STEVENSON, H. (2012) Teacher Leadership as Intellectual Leadership: Creating Spaces for Alternative Voices in The English School System, *Professional Development in Education*, 38, (2), 345-360.

STRIJBOS, J. & DE LAAT, M. (2010) Developing the Role Concept for Computer-Supported

Collaborative Learning: An Explorative Synthesis. *Computers in Human Behavior*, 26, 495-505.

THOMSON, K. (2015) Informal Conversations about Teaching and their Relationship to a Formal Development Program: Learning Opportunities for Novice And Midcareer Academics*, International Journal for Academic Development*, 20 (2), 137-149.

TILLEMA, H. & VAN DER WESTHUIZEN, G. (2006) Knowledge Construction in Collaborative Enquiry Among Teachers, *Teachers and Teaching*, 12 (1), 51-67.

TIMPERLEY, H., WILSON, A., BARRAR, H. & FUNG, I. (2007) *Best evidence synthesis iterations (BES) on professional learning and development.* Wellington, NZ: Ministry of Education.

TIMPERLEY, H. (2011) *Realizing the Power of Professional Learning*. Maidenhead: Mcgraw-Hill Education.

TOUR, E. (2017) Teachers' self-initiated professional learning through Personal Learning Networks. *Technology, Pedagogy and Education*, 26 (2), 179-192.

TRACY, S. (2010) Qualitative Quality: Eight "Big-Tent" Criteria for Excellent Qualitative Research. *Qualitative Inquiry*, 16 (10), 837-851.

VESTERINEN , O., TOOM, A., & PATRIKAINEN, S. (2010) The Stimulated Recall Method and ICTS in Research on the Reasoning of Teachers, *International Journal of Research & Method in Education*, 33 (2), 183-197.

VIGURS, K. & KARA, H. (2017) Participants' productive disruption of a community photo-elicitation project: improvised methodologies in practice. *International Journal of Social Research Methodology*, 20 (5), 513-523.

WARING, J. & BISHOP, S. (2010) "Water Cooler" Learning. *Journal of Health Organization and Management*, 24 (4), 325-342.

WENGER, E. (1998a) Communities of Practice: Learning as a Social System. *Systems thinker*, 9 (5), 1-10.

WENGER, E. (1998b). *Communities of Practice: Learning, Meaning, and* Identity. Cambridge: Cambridge University Press.

WILKINS, C. (1997) *Effects of a Resident Mentor Teacher on Student Achievement in Mathematics*. Available from: http://files.eric.ed.gov/fulltext/ED416091.pdf. [Accessed 21 September 2017].

WILKINSON, S. (2011) 'Focus Group Research'. In D. Silverman (ed.), *Qualitative Research,* 3rd Edition. London: Sage, 168-84.

WRIGHT, N. (2010) Twittering in Teacher Education: Reflecting on Practicum Experiences, *Open Learning: The Journal of Open, Distance and e-Learning*, 25:3, 259-265.

ZEMBYLAS, M. & BARKER, H. (2007). Teachers' Spaces for Coping with Change in the Context of a Reform Effort*. Journal of Educational Change*, 8 (3), 235-256.

ZIMMER, M. (2010) ''But the Data Is Already Public'': On the Ethics of Research in Facebook. *Ethics in Information Technology*, 12, 313–325.