

# A multi-case study of primary school teachers' digital literacies teaching

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## **Abstract**

Taking an interpretivist approach this study investigates the digital literacy teaching practices of six primary school teachers in different locations in the UK. It explores narratives of their digital literacies teaching through a multi-case study drawing primarily from photo elicitation interviews, teachers' own writing and analysis of planning. The study explores the teachers' definitions, motivations for, and teaching of digital literacies. Data collection took place during the COVID19 pandemic which highlighted some of the changes to practice that occurred at this time. Recent literature was reviewed with particular emphasis on approaches to teaching literacy, definitions of digital literacies, the value of digital literacies and the implications for the curriculum. This study compared findings with Burnett et al.'s, (2014) suggestion for a Charter for 21st Century Literacy. Findings indicate that teachers' use of digital literacies is integrated within their teaching, to do this they act as curriculum makers adapting and working within the set curriculum to meet the needs of their learners. They are motivated by their desire to engage children in their learning and to provide larger audiences for their work. Classroom pedagogy involved collaborative, creative work and an engagement with new technology and apps. During the pandemic children chose to produce films to show their narratives which reflected findings from a study in the US (Chamberlain, 2020).

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## Declaration

I, the author, confirm that the Thesis is my own work. I am aware of the University's Guidance on the Use of Unfair Means (www.sheffield.ac.uk/ssid/unfair-means). This work has not been previously presented for an award at this, or any other, university.

## **Chapter 1 Introduction**

#### 1.1 Introduction

I distinctly remember my first lesson in technology at school, even though it was over 40 years ago. We were taken into a room to look at a computer, from what I can recall it filled the room, we were then taken out again and introduced to binary numbers, unsurprisingly that is when my memory fades. In today's society technology can be present in a child's life from birth, within minutes they can be photographed and on social media, their vital signs are checked, and records kept all through technology. The rapid advances in technology since my first computing lesson, all those years ago, have meant that children born today are immersed in literacies far more diverse than I ever was. Carrington (2005), writing over 15 years ago, argues that the demands of the global economy require participants to be informed, participatory and active and that the increase of new technologies and improved access to new forms of information offer the potential to create a literacy curriculum that is transformative and socially critical. This will allow children to "develop the skills to transform the world" (Carrington, 2005:10). This multi-case study attempts to investigate pedagogy that has the potential to develop children's digital literacies to allow them to develop these skills. This has been achieved by investigating six teachers' definitions, motivations and practice in digital literacies. The details of the approach used will be fully explored in Chapter 3.

#### 1.2 The terms used

When I trained to be a teacher in New Zealand reading, writing, speaking and listening all came under the term English. When I returned to the UK in the 1990s the English Curriculum was taught through the National Literacy Strategy. Wyse *et al.* (2013) explain that the term 'English' was established as the main focus in the 1988 Educational Reform Act, the use of literacy as a term became more prominent with the advent of the National Literacy Strategy in 1997. When reading about digital literacy/literacies both terms are used interchangeably. As a result, throughout this work a variety of terms have been used, as I have used the original language presented by the authors. The term literacy suggests that it is a singular entity, but this work demonstrates that it is made up of multiple facets so when I write about digital literacies, I do so acknowledging that it is made up of many aspects of literacy. An example of this is The New Literacies Studies (Street 1984; Gee 1996; Barton and Hamilton 1998) who take a socio-cultural approach and consider literacy to be a social practice recognising the multiple literacies found at home and in the community. An illustration of this is the work of Bryce -Heath (1983) which is explored in Chapter 2 who researched children's home and school literacies. This approach is important for my study as I will argue that children's use of digital literacies in the home should be recognised and built upon in school. At the same time the socio-

cultural approach to literacy was being developed and researched, the New London Group (Gee, 1992; Kress, 1993) were arguing that the term literacy needed to be reconceptualised to better reflect the contemporary forms of literacy that were emerging alongside changes in technology. These texts were multimodal and included audio, visual and printed texts, Chapter 2 examines these changes in detail.

More recently Dowdall and Burnett *et al.s'* (2021) work, discussed in Chapter 2, considers literacy to be a:

"socially situated practice, involving people, their resources, power and ideology. It involves practice that transcends the narrowly conceived technical skill sets outlined in various education policy and curricula, to include attitudes and dispositions and communicative practices that are realised in a variety of spaces and textual forms" (Dowdall and Burnett *et al.*, 2021:5).

A full exploration of the definitions of digital literacies is explored in Chapter 2 with an explanation of the definition that I will use for this study which is, 'socially situated practices that involve both the consumption and production of dynamic multimodal texts.' Practice should include meaningful, collaborative, critical engagement with texts that develop dispositions that help children to situate themselves within the social spaces that they will encounter. They are complex skills that involve social and cultural practices.

Although authors such as Dezuanni (2015:418) argue that the term text, "inadequately captures the materiality of digital photographs, video, audio and alphanumeric symbols deployed within digital culture" I am going to use the term within this work in line with the work of Kress (2015) who outlines the numerous modes that are included within multimodal texts, as discussed in section 2.4.

#### 1.3 My Context

I trained to be a teacher whilst living in New Zealand in the late 1980s, at which time digital literacy was not yet part of everyday life. It was not until I returned to England in the late 1990s that I started to use film as part of my classroom practice. One of the reasons that I have chosen to research teachers' practice in digital literacies is that I believe that teachers can have an important influence on children and young people's lives. The description of my position and experience in education,

outlined below puts this study into context and helps to exemplify the discussion of the approaches to teaching literacy outlined in Chapter 2.

#### 1.3.1 The influence teachers can have

I come from a working-class family, both of my parents left school at a young age and my father could not read or write. I grew up in SE London, failed the 11+ and was not expected to do well at secondary school. I ended up at a large inner London comprehensive school which I hated (and which was later closed down). I managed to get 5 'O' Levels and then attended the sixth form. It was there that my life was changed by a geography teacher and a history teacher who gave up much of their time and effort to teach me how to write an essay. Both were feminists and encouraged girls to do well and consider university: they had a huge influence on me, and I decided to 'go to university' not really knowing what this entailed. The geography teacher, who could not have been much older than me at the time, was pivotal in my desire to become a teacher. I was the first in my family to go into higher education at North London Polytechnic (now London Metropolitan University), studying geography which I loved. I had no idea of how to study and what was required and no one at home who could support me, at that time there was no academic support within the polytechnic. Although I only gained a modest degree, I knew I was capable of more and this ignited a passion for continuing education both personally and for others.

### 1.3.2 My training - a creative time in New Zealand

I trained at Wellington College of Education, now part of Victoria University, in 1988 and 1989. It was a two-year PGCE in which I specialised in English and Dance. It was a very practical course that taught us how to teach English, and what was considered to be the best practice at the time but did not really consider many theorists. A key English tutor had been one of the first reading recovery teachers and had been trained by Marie Clay (2015) who is considered to be an expert on teaching reading and had developed the reading recovery programme. Teaching, and my subsequent practice in English, was centred around having a print-saturated classroom. Children were surrounded with high quality picture books and novels. Teacher reading, shared reading and guided reading were part of everyday practice. Writing evolved from texts, the children's interests and the topic we were studying. Every lesson would start with shared writing and move to independent writing where teachers would work individually with children talking about what they had been writing. Work was shared within the class at the end of lessons and on walls.

#### 1.3.3 Teaching in New Zealand

Because of the diverse nature of the children that we taught, mainly from Māori and Pacific Island backgrounds, we considered it essential that their home interests and cultures were reflected in the classroom. As much as I could, I tried to ensure that the books in my reading area reflected the cultures of my class. The New Zealand Department for Education produced 'reading journals' each month that contained fiction and non-fiction texts that were reflective of the NZ population and were written for particular reading ages. Topics were focussed on local areas and issues, for example a whole term's focus was on the Waitemata Harbour where one of my schools was situated. As a result of this practice, children were eager to read and write and made good progress. As described above, I also ensured that children's home cultures and interests were, as much as possible, integrated into everyday practice. As part of my training, I learnt Māori and tried to use this within class. Māori texts and traditions were frequently studied as were wider Pacific Island cultures. To an extent this reflected socio-cultural (Scribner and Cole, 1981) and psycholinguistic approaches (Goodman, 1986) to literacy teaching which are fully explored in Chapter 2.

#### 1.3.4 A return to England and the National Literacy Strategy

Returning to England in 1996, and starting teaching in 1998, coincided with major changes introduced by the New Labour Government in an attempt to raise standards within schools and to address perceived underachievement. I went from a creative, language-saturated environment, where teachers had freedom over what and how to teach, to one that was fully prescribed and involved a timed literacy hour reminiscent of the cognitive psychological approach (Gough and Hillinger, 1980). Having said that the development of the National Literacy Strategy had been informed by the practices I was familiar with in New Zealand, it was perhaps the interpretation that made it prescriptive. Because of the increased emphasis on accountability, children undertook statutory tests and, as a result, many of us were encouraged to 'teach to the tests'. The National Literacy Strategy (DfEE, 1998) was very prescriptive in terms of what should be taught and how it should be taught. I t did, though, include limited reference to the use of film. The Primary Strategies (DfES, 2006) followed and although they were still very prescriptive, they did include the use of screen-based texts such as words and images and TV programmes. I need to acknowledge that although neither of these strategies were statutory, although the tests were, schools were reluctant not to follow them because of the introduction of the Office for Standards in Education (Ofsted) in 1992 who looked closely at the teaching of literacy.

#### 1.3.5 My classroom practice and film

At that time within my classroom I had a computer, but it was only used to word-process completed work. I used film only as a stimulus for writing until I attended a British Film Institute (BFI) workshop on the use of film, when I then started to teach how film was constructed and also how to make films. With my class of Year Fives and Sixes (ages 9-11) we would use very basic 'digi blue' cameras to make animated films, I formed a film club where we would also use Windows Movie Maker to edit the films the children made. Children made TV and radio reports as part of literacy work alongside narrative films. This interest prompted me to undertake a case study of 'children's critical literacy when viewing film' for my MA thesis. I found that they were quite sophisticated viewers, able to understand the techniques that film makers use to prompt emotional responses. As a Leading Literacy Teacher for Kent, I provided workshops on this for teachers in the county. Whilst attending United Kingdom Literacy Association conferences I always sought out sessions on digital literacies, and film in particular, to improve my practice. This was at a time when the Primary Strategy (DfES, 2006) was in practice and film was part of the curriculum, this and the subsequent changes to the curriculum, which removed it, will be discussed in Chapter 2. This experience prompted my continued interest in film when I moved to Initial Teacher Education (ITE).

### 1.3.6 Moving to Initial Teacher Education (ITE)

When I moved to university to lead an English team in ITE, I found that they taught film as part of the curriculum, so my teaching fitted in well. I now include wider aspects of digital literacies, but government pressure to focus on other areas of English such as phonics (Clark, 2018) means that I have limited time to spend on it. It was only when I started visiting schools, as part of my role supporting student teachers, that I realised that the use of film and digital literacies is rare in the group of schools I visit in SE London. I have seen very little use during observations and from informal conversations with students they report that it is happening in some classrooms, but they are in the minority. Recently, when teaching third year undergraduates a workshop on film, I heard one young woman say that she was no good at technology when asked to use an iPad to film. This is a student who I assume uses a phone and must use a device to produce her assignments. I wanted to understand why some teachers feel able to integrate digital literacies into everyday teaching and what I can do as a university tutor to make students, such as the one described, feel confident to do so. In order to examine this I undertook a multi-case study of six teachers. The data are presented firstly as individual narratives about each of the teachers and then analysed in order to compare and contrast their practices. This is fully discussed in Chapter 3.

#### 1.4 The context of the study

#### 1.4.1 The current curriculum

The current national curriculum (DfE, 2013) has no mention of digital literacies within the English curriculum and a limited amount in the computing curriculum, which is focussed on the retrieval of information and the safety aspect of computing. This is discussed further in section 2.9.2. Having said that, I feel that it is broad enough to allow teachers to incorporate it into everyday practice. Bulman's (2017) work illustrates this as she has worked in schools as an adviser introducing visual texts to raise standards and motivation in writing. This seeming lack of engagement with digital literacies that I have observed, is in contrast to the amount of research that has been undertaken on the subject (Burnett, 2016; Cannon *et al.*, 2018; Marsh *et al.*, 2017). Parry *et al.*'s (2016:233) work makes similar points, that despite the developments in new technology, and the inclusion of it in some schools, "mainstream educational practices have shifted little". They argue that practice has not kept up with developments in literacy, media and technology, despite many calls for curriculum change in England. This is in contrast to Scotland (Curriculum for Excellence, 2010) where digital literacies are threaded throughout the curriculum.

## 1.4.2 The time – the COVID19 pandemic

This study began in September 2019, and I had intended to interview teachers in their setting, observe their practice and scrutinise children's work, both in school and post interviews. I had written Chapter 2, the review of literature, started Chapter 3, the methodology and started my ethics application by the February of 2020, little knowing that a world-wide pandemic was approaching. Once the seriousness of the pandemic was apparent, face to face data collection was prohibited and unsafe, the nation was in lockdown and schools were teaching remotely with only key worker children having face to face teaching. The pressure and stress of both work and the pandemic on both the teachers and myself, meant that I could not collect my data until February 2021 and my data collection methods had to be changed. At that time the teachers who were part of this study were towards the end of a period of lockdown, they were either teaching remotely from home, remotely and face-to-face in school or a combination of both. I could not go into school; classroom practice had changed and some had limited access to their files. As a result of this I conducted online photo elicitation interviews in which teachers shared photos from their collection which they felt best exemplified their practice. Some of the photos were from prior to the pandemic and some were of work produced during periods of remote teaching, four teachers shared their plans for either digital literacies or computing. Four of the teachers wrote a description of their teaching prior to the pandemic. I decided that within this context a scrutiny of children's work was not practical as it was, in some cases, challenging for teachers to access work that they would like to share and the work that was currently being produced was not representative of the photos they were sharing and practice they were describing. Despite this the narratives that the teachers offered provide a valuable insight into their classroom practice as well as their reflections on their experiences of teaching digital literacies.

#### 1.4.3 The time – changing technology and children in school

Since Luke and Freebody (1990, cited in Serafini, 2012) argued for the teaching of digital literacies as part of their 4 resources model, research in this area has developed considerably. As I highlighted earlier in 1.4.1. Work by Marsh et al. (2005) and Marsh (2010) have established that children are immersed in digital technology from birth and that they learn the skills of using digital technology both implicitly and explicitly from interactions with their parents, family and friends. A key reason for my interest is so that I can prepare the students I teach to work with children with such experiences. From a young age, children are engaging with culturally valued textual processes which help them to develop their particular identities, literacy skills and expectations around text. Children have the ability, and the resources, to independently produce and consume information online and can therefore become active contributors and consumers of global flows of information (Merchant, 2012, Carrington, 2005). Burnett (2016) argues that developments in digital technology have meant literacy practices have changed and that this has far-reaching implications for children's lives. Many children bring to school experiences of using digital devices in everyday life and for some, Marsh (2010) argues, these are some of their earliest literacy experiences. These experiences are likely to be with multimodal texts involving multimedia practices; many of the texts they engage with are from popular and consumer culture.

It is important that teachers and student teachers are aware of the wide range of texts that children can access, and the expanded availability of new technology that allows children to gain access to both an audience for their writing and a greater range of texts to consume and retrieve information from. Apperley and Walsh (2012) demonstrate that some texts overlap between printed media and online texts, such as 'paratexts', which will be considered in Chapter 2, they argue that children will bring their changing skills and knowledge to school and that these can be built upon by curricula and practices within schools. This is covered in more depth in Chapter 2. This indicates a need for teachers to understand the home literacy practices of children and be able to build on this knowledge in school

as well as a need for the inclusion of digital literacies within the curriculum for English. Within this context this study aims to understand how teachers incorporate digital literacies within their classroom practice and what can be learnt from this.

#### 1.5 The study itself

Chapter 2 begins with an examination of some of the approaches to teaching English that have been advocated over the last forty years. I have chosen this period for two reasons, firstly as it incorporates several different approaches to literacy and developments in digital technology and secondly for 34 years I have been involved in teaching, as a student, teacher and lecturer. This has given me considerable professional experience of teaching English, as described earlier in this chapter. I felt that it was important to appreciate the approach the teachers take as this may help me to understand their use of digital literacies.

I agree with Mills (2010) and argue that it is important to take a socio-cultural approach to literacies as this helps to understand the effect that developing technologies have had on the home literacies of children and the implications this has for teaching and curricula. Multimodality (Kress, 2015) and the changing nature of texts are explored as are the reasons that definitions of literacy and digital literacies are constantly in flux. There is a close consideration of the development of the definitions of digital literacy/literacies, I have used both terms within Chapter 2 as I adopted the terminology that the authors have within their work. Within other chapters I have used 'literacies' which recognises the many textual practices that have developed through changes in technology and have been discussed above (Mills, 2010). I start with Koltay (2011) who considers the origins of the term and the contribution of authors such as Burnett *et al.* (2016), Buckingham (2015), Merchant (2007) and Dowdall and Burnett *et al.* (2021).

Chapter 2 moves on to establish the connections between home and school digital literacies and the importance of its inclusion in classroom practice. Works by authors such as Parry (2014), Marsh *et al* (2017), and Stephens *et al.* (2013) are considered. The value of the benefits digital literacies offer to school are explored and an argument made for an English curriculum that is relevant to the twenty-first century which has digital literacies embedded within it. There is a consideration of how teachers can act as curriculum makers working within the prescribed curriculum. Particular attention is given

to the work of Burnett *et al.* (2014) as their Charter for 21<sup>st</sup> Century Literacies is used as a basis to present and compare the teachers practice and planning in Chapters 4 and 5. Critical literacy is explored and whether its importance has increased as a result of developments in technology. I review the research focussed on digital literacies teaching in other countries to consider whether its inclusion within the curriculum does influence classroom practice.

My practice within Initial Teacher Education (ITE) is considered and literature on this area explored, Burnett (2011) provides an interesting insight into the digital lives of ITE students and the relationship between their home use and classroom practice. The chapter finishes with a section on the 2020 COVID pandemic and its influences on schools and children's literacy practices.

Within Chapter 3 I provide a clear rationale for the methodology and methods that I employed for this study. This work is a multi-case study and in order to explain my choice I discuss possible definitions of case study and examine feasible designs of case studies that I could use. Within the literature reviewed I focus on educational research and the work of various authors such as Yazan (2015), Stake (2005), Thomas (2012) and Yin (2018). I acknowledge that my design of this study is influenced by my epistemological and ontological perspective and that the choices I make within it are influenced by my identity and my central beliefs. I explain the reasons for taking a social constructivist approach and for my choice of data collection methods. I position myself within the study considering my approach to research and cultural influences.

I consider different approaches to multi-case studies and examine the work of Warschauer (2008) Craft *et al.* (2013) and Craft and Chappell (2016) all of whom used multi-case studies as part of a process of educational research. I justify my use of data collection methods, focussing on interviews both face to face and online, photo elicitation including the consideration of Moss' (2001) use of photos in her study. I describe the process that I went through in reality and discuss the use of personal recounts to further understand teachers' practice. The qualitative nature of this research will therefore allow me to listen to the teachers' narratives of their teaching and learn from their practice.

Full consideration is given to the ethics process of the research and how data were managed during the process. An explanation of how participants were recruited is also given. Despite the challenges created by the COVID pandemic I secured six participants, outlined in table 1.

Pseudonym	Gender	Number of years	Current year group
		teaching	
Alex	M	12	1
David	M	9	1
Joe	M	4	3
Niamh	F	7	3
Mark	M	3	4
Fran	F	28	6

Table 1 participants

The approach that I took to analysis is explained and relevant literature considered. Whilst I looked for themes within the transcripts, I firstly present the cases as the teachers' own narratives in Chapter 4 and then present analysis against relevant literature and research in Chapter 5. The reasons for choosing to present the cases in a narrative way is explored considering the work of Goodson (2006), Knibb (2013) and Reissman (2011) amongst others. I look to Braun and Clark (2006, 2020) to inform approaches to thematic analysis.

Within Chapter 4 I present each of the teachers' cases starting with a biographical introduction, which they provided, followed by a detailed account of the narrative from the photo elicitation activity. Within this account I selected extracts from the transcripts to construct each teachers' narrative of their digital literacies teaching. I begin each case with an examination of their definitions of digital literacies, which I have linked to the definitions found in Chapter2. Through the narratives, they describe how they plan their teaching and keep up to date with new ideas. Their motivations for teaching digital literacies are described and using the extracts from the transcripts I present the teachers' practice as they describe it. Each narrative ends with a grid that I developed from Burnett et al.'s (2014) Charter for Literacies Education which both presents data from the transcripts and compares the teachers' pedagogy to the charter to see how the teachers' provision compares to that suggested by Burnett et al. (2014). I chose to use Burnett et al.'s (2014) work as it was developed after a review of existing policy and curriculum as well as an examination of innovative teaching and

learning. The principles held within it are found within much of the literature that is presented in the next chapter.

Chapter 5 presents an analysis of the case studies against the research examined in Chapter 2. It begins with an examination of the teachers' motivations for teaching digital literacies including their backgrounds, training, definitions of digital literacies and why they consider it to be so important. It moves on to consider how they plan for children's teaching and learning alongside the digital tools and apps that they use. Pedagogy is considered including modelling, risk-taking, working collaboratively, understanding children's prior knowledge and experiences from home. It examines how teachers can be seen to be curriculum designers and makers working within the prescribed curriculum. The chapter moves on to examine the choices of media texts that the teachers discuss including film and the need to prepare children for online identities. Assessment is briefly considered although this is not a theme that was prominent in discussions. The final section considers what happened during the pandemic and the periods of lockdown and home-schooling. The grids that are presented in Chapter 4 are combined and end the chapter.

Chapter 6 begins with a discussion of the strengths and weaknesses of the study and I establish my claims for originality within the work. I revisit my research questions summarising what these teachers of digital literacies do and what implications this has for me as a tutor in ITE. An examination of what happened to the teachers' practice as a result of the pandemic will be presented. The chapter finishes with recommendations as to how the practice observed could be replicated in other classrooms.

This chapter has outlined my motivations for the study and described the structure of the work. I have established that the changing nature of texts and use of technology is not always reflected in the literacy curriculum or practice in school. This study seeks to understand the motivations and practices of 6 teachers who include digital literacies as part of their everyday practice. The key questions that I focussed upon in this study are:

- 1. What do digital literacy practices look like in the classroom?
- 2. How are teachers defining digital literacies in their classrooms?
- 3. What are their motivations for teaching digital literacies?

In my literature review I demonstrate how I arrived at my questions and make the case for the inclusion of digital literacies in English teaching.

# Chapter 2 Literature Review

#### 2.1 Introduction

The first section of my literature review focuses on research into the teaching of English and examines some of the approaches that can be taken. This will help to identify the possible motivations of the teachers and what may have influenced their pedagogy. I examine why the socio-cultural approach to literacy is important when discussing digital literacies. In order to investigate the types of texts that are described by the teachers, multimodal texts are discussed and the definitions of digital literacies explored as well as the benefits that digital texts afford teachers and children. This enables a comparison of the teachers' own definitions and practice alongside the established body of research on the subject. The connections between the texts that children encounter at home and those they should encounter in school are discussed. The focus on what an English curriculum in the 21st century should offer children is scrutinised, which will allow a comparison with the teachers' own practice in Chapter 5. Research on the importance of critical literacy is discussed as this is an element that is included in much of the work (Burnett et al., 2014; Dowdall and Burnett et al., 2021). In order to understand how I as a tutor can support students' teaching of digital literacies, the way in which digital literacies are approached in ITE is considered. The chapter finishes by examining some of the emerging research around the effects of the pandemic on literacy teaching as this study was conducted in the middle of the pandemic.

## 2.2 Approaches to teaching English

Before approaching the subject of digital literacies, its definition, significance in the twenty-first century and its place in the primary classroom, it is important to consider some of the approaches to the teaching of English/ literacy that the past forty years have seen. This will be used to examine the teachers' practice and why they are motivated to incorporate digital literacies in their teaching. I have focused on this period because I have direct experience of teaching within this context and acting on the changing policy and curriculum in my professional practice. The EdD is a doctoral programme focused on professional practice and this choice enabled me to draw on my own professional reflections, whilst placing it in a wider context in terms of research.

#### 2.2.3 A psycholinguistic approach to literacy

The practice that I outline in section 1.3.5 could be described as being partly a psycholinguistic approach to literacy and it is important to examine the research in this area as some of the teachers

practice is reminiscent of the principles described below. Chomsky (1965) considered that children are naturally inclined to learn language within their environment and that they became good users of oral language well before they reach school. The relationship between environment and literacy is considered in more depth by those who take a social approach to literacy, which will be discussed later in the chapter. Building on Chomsky's work, and partly as a response to the prominent view that writing was a set of discrete skills which could be taught and assessed, other researchers such as Goodman (1986) argued that children learnt to read and write in the same way as they learnt to talk. Smith (2006:3), originally published in the 1970s, contended that learning to read and write was something that children learnt as a consequence of living in a literate society, stating that, "the function of teachers is not so much to 'teach' reading but to help children to read". Goodman's (1986, cited in Hall, 2010) research supported this as he considered that children wanted to communicate and that teachers needed to build upon this within their classrooms. She stated that "language development is natural whether written or oral. It develops in a social setting because of the human need to communicate and interact with significant others in the culture" (1980:3, cited in Hall, 2010:41).

This has similarities to research based on the socio-cultural approach to literacy, discussed in section 2.2.4, in which the importance of home literacy practices is established. Inspired by these ideas teachers would help children to learn literacy in environments that fostered a positive attitude to the subject, reminiscent of my early training and practice. Psycholinguists, such as Goodman (1986) and Smith (2006) argue that written language has the same functions as all other forms of language in that writing provides a way to inform, communicate, interact with others and learn about the world. Teachers encourage children to engage in reading and writing because it is useful to them and language is seen as purposeful.

This approach is also known as the 'Whole Language Approach' (Hall, 2010) where children have a choice of topics to write about and are encouraged to use a range of genres in their writing. Spelling, grammar and punctuation are taught contextually, and language skills are integrated into the curriculum. It is considered that it is important to build on learners' language and cultural experience (Hall, 2010). This is reminiscent of my training as I was encouraged to teach reading and writing in a purposeful manner. It is the teacher's role to create a classroom environment where children are interested in using language to communicate. The environment needs to foster a love of books and

contain books that are rich in language that children regularly engage with (Hall, 2010). It was considered that talk provided an effective link between all forms of language use. In my case, whilst there was a lot of talk and a purposeful environment in which to learn literacy, there was also some direct teaching through guided and shared reading and writing and writing conferences with children.

The psycholinguistic approach was described by Goodman (1986:39) as a 'top down' model of literacy development because it moves "from whole to part, from vague to precise, from gross to fine, from highly concrete and contextualized to more abstract". In this model, texts are used to teach writing, teachers discuss the structure and format of texts, and children, through the use of talk, consider the context and purpose of the writing. It has an emphasis on authentic literacy events that encourage children to write for a purpose allowing children to have ownership of their work and feel motivated to write, rather than discrete skills-based activities which are not contextual. This approach is similar to that of Graves (1983) who described the 'process approach' to writing within which he described a writers' workshop, which involved teachers and children working together to compose writing. His ideas were similar to those of Smith (1982) who argued that "Teachers must play a central part if children are to become writers...Teachers are influential as models as well as guides, as children explore and discover the world of writing" (1982:201).

In a classroom where this approach is taken there is an emphasis on the writing environment, which would include a rich resource of texts that are used as models for writing (Hall,2010). Children are encouraged to share their writing with each other and have conferences with the teacher to discuss their written work. Work is shared with the class and published and displayed for others to read. Children's writing is viewed as something to celebrate. In this approach to writing, teachers' subject knowledge is key, and they are encouraged to write alongside the children. The idea that teachers should write alongside children and model that they are writers has been supported more recently by Cremin (2006) and Cremin *et al.* (2019). Although much of this research does not refer specifically to the reading and writing of digital texts, it relates to the work of Burnett and Dowdall (2021) and Arrow and Finch (2013) who, when writing on digital literacies, emphasise the importance of collaboration in classroom practice.

The key criticism of this approach was the freedom allowed to children and it was questioned whether allowing freedom and encouraging ownership really led to the development of children's writing ability. However, Wyse's (2018) research demonstrated that the approach can have a positive effect on children's writing and that if teacher support is effective, children will use a variety of genres and their writing skills will develop well.

## 2.2.4 A socio-cultural approach to literacy

In the latter decades of the 20<sup>th</sup> century, socio-cultural theories of literacy were developed by authors such as Bruner (1990) and Brice- Heath (1984). These theories differed from the previous view of literacy development which considered it to be an individualistic, cognitive process in which studies tended to focus on cognition and psychology (Gough, and Hillinger, 1980). These will be discussed in section 2.2.6. The socio-cultural approach to literacy adopted primarily ethnographic studies considering the literacy lives of various communities. The first study in this area was Scribner and Cole 1981 (cited in Marsh,2010) who found that literacy was more socially and culturally situated and developed in a purposeful way. School literacy was argued to be substantially different to home literacy as it was more formal in nature and not representative of out of school practices.

Studies followed, for example Brice- Heath's (1983) seminal work, which considered the differences between home and school literacy practices in the USA. In the study language development was explored in three diverse communities: 'Trackton', a black community; 'Roadville', a white working-class community and 'Maintown', an area where many teachers' children lived. This is a key ethnographic study, over a ten-year period, which prompted teachers to consider the home environments of the children in their class, it has been widely cited and prompted much more research in this area. The focus was on the communication between parents and their children, and it included detailed observations of, for instance, how homes were decorated and the how parents and children interacted with each other. Brice-Heath demonstrated that "long before school, their language and culture at home has structured for them the meanings which will give shape to their experiences in classrooms and beyond" (1983:368). Brice-Heath (1983) further investigated what happened when the children started school, she found that in 'Trackton' and 'Roadville' there was a disjuncture between literacy found at home and that of school, this was contrasted to 'Maintown' where the literacy practices in the home were far more reflective of those found in school. Marsh (2000) argued similarly that nurseries and schools must build on the rich, diverse literacy practices found at home

and in the community if schools want to motivate and engage children. Barton, Hamilton and Ivanic's (2000) later work substantiated that of Brice- Heath's (1983) stating that "literacy practices are patterned by social institutions and power relations, and some literacies are more dominant, visible and influential than others" (2000;23).

Later studies focussed on the wide range of literacy practices that children engaged in out of school within their families and community and contrasted this to the previous deficit view that many educationalists held of families' out-of-school practices. Research sought to document the rich nature of these practices which further emphasised the gap between the home and school experiences of some children (Marsh, 2010).

Building on this research, the 'New Literacy Studies' emerged, focussing on literacy as a social practice contextualised within explicit domains. Street (1993) devised the terms autonomous and ideological constructions of literacy. Autonomous constructions, Street (2003:77) argues, consider literacy as a neutral set of skills that children acquire regardless of context whereas ideological constructions emphasise "literacy as a practice grounded in social, cultural and historical and political contexts". Street (2003:77) stated that the New Literacy Studies:

"...represents a new tradition in considering the nature of literacy, focusing not so much on acquisition of skills, as in dominant approaches, but rather on what it means to think of literacy as a social practice This entails the recognition of multiple literacies, varying according to time and space, but also contested in relations of power...and asking, "whose literacies are dominant and whose are marginalized or resistant".

New Literacy Studies considered the role of literacy in people's lives (Street 1984, Gee 1996, Barton and Hamilton 1998). Street researched people in Iran and the ways in which they engaged in reading and writing, focussing on the purposes they used them for. The New Literacy Studies informed further work that considered issues around power and identity in relation to practices in school for example, Au (2007) who studied Hawaiian children's home literacy practices.

Within the 1990s, other studies in this area explored the ways in which schools could recognise and build upon children's experiences in home and their communities. Moll *et al.*'s (1992) work discusses 'Funds of Knowledge', which refers to the knowledge and experiences that children bring to school as

a result of the life experiences they have had. Teachers can then build upon these experiences within school. Socio-cultural theories suggest that literacy practices from different areas can combine through 'recontextualization'. The classroom can offer an environment where children's home literacy practices can be recognised, creating a link between their home and school knowledge (Marsh, 2010).

Within the socio-cultural approach to literacy Barton and Hamilton (2000) discuss the nature of literacy and describe two characteristics: *literacy events*, which are those that can be observed; and *literacy practices*, which are implied, such as power structures, values, beliefs and attitudes to literacy. They describe six characteristics of the nature of literacy, arguing that literacies can change according to the context they are being used in, which reflects Au's (2007) study of the differences in home and school literacy practices. Similar to Bryce-Heath they found that "Literacy practices are patterned by social institutions and power relationships, and some literacies become more dominant, visible and influential than others" (Barton and Hamilton, 2000:8). Reminiscent of the whole language approach, described above, they state that literacy practices are purposeful, although they add that they are embedded within cultural practices. Barton and Hamilton (2000:8) recognise that "literacy practices change and that new ones are frequently acquired through processes of informal learning and sense making". This resonates with the work of the New London Group, which is discussed in section 2.4, as they argued that the term literacy needed to be recontextualised to take into account the changing nature of literacy practices (Kress, 1993).

The socio-cultural approach to literacy recognises that children's engagement with literacies will differ as they are influenced by different social practices. It may be that a child is part of numerous communities and as a result engages with many different literacy practices for example reading and writing online, reading the Koran by heart in their second language, and reading environmental print such as graffiti and advertising boards.

#### The cognitive psychological approach

It will be argued later in this chapter that the curriculum has narrowed (Burnett and Merchant, 2018) partly as a result of the introduction of tests, and this is why digital literacies may not be included in classroom practice. The English curriculum for England currently favours a cognitive psychological approach (Gough and Hillinger, 1980) which views learning to read and write as a skills-based activity in which literacy skills can be learnt and therefore tested. The emphasis is put on decoding and

deciphering words. Stage models are often presented to show the steps that children pass through when learning English, for example Gough and Hillinger (1980) who consider that learning to read is not a natural process but a series of stages that children go through. They emphasise the importance of decoding but acknowledge that reading does involve much more than this and that comprehension is also important. Cognitive psychologists perceive a difference between a beginner writer and an experienced writer and consider that writing ability can be measured as children move through a series of stages to become a more experienced writer. Hall (2010) argues that a cognitive psychology approach advocates the learning of discrete spelling and grammar skills that can be tested to show improvement and that the key to being able to read and write is having an understanding of the alphabetical nature of written language. These are seen as skills that children can be taught.

This is viewed by Street (1993) as an *Autonomous* model in which literacy is regarded as a technical skill that is used for a variety of purposes to complete particular tasks. The same skill can be used in many contexts and Street (1993) argued that literacy is taught like this in many areas. If literacy is viewed by those who develop curricula as a technical skill that will be the same in every context it will ensure that the form being taught in school is the norm and the only acceptable form of literacy. It could be considered the universal standard, and other forms of literacy judged against it. Street argued that "In literacy circles, where agencies present literacy as the panacea to social ills and the key ingredient to modernization, the dominant assumption has been of a single autonomous literacy that is the same everywhere and simply needs transplanting to new environments" (1993:80).

Street (1993) maintains that governments see literacy in this way, that they consider that acquiring literacy is a process of learning a series of decontextualized skills. He contends that in particular governments view learning to write as an individual cognitive process. He argues that if literacy is considered a set of skills that can be acquired it follows that they can then be tested. Another criticism of this method is that writing is viewed as a solitary occupation and ignores the social aspects of writing. Studies by Arrow and Finch (2013) and Doult and Walker (2014) found that there is a value in children working collaboratively together. When comparing home and school literacies Burnett *et al.* (2014) describe school literacies currently as being sets of specific skills that can be taught with the prioritisation of paper-based texts. They consider that children produce 'polished' texts within specific time restraints in class. This is unlike home literacies which are learnt in everyday settings and in which text production happens over time and are rewritten during the process.

#### 2.2.7 The move towards children writing for pleasure and purpose

In recent years there has been a move by researchers such as Cremin and Myhill (2011) and Cremin and Oliver (2017) to encourage literacy teachers to teach in a way that will allow children to feel a sense of pleasure when learning to write. More recently the Writing for Pleasure Manifesto (Young, 2020) has been developed to promote this in schools. It had already been established by Barrs (2000) that engaging in challenging literature helped children to understand how writers work and that reading and writing are interlinked and one will not develop without the other. Barrs (2000:59) considered that "readers who are aware of what is involved in structuring narrative experience for others are likely to read more critically and responsively" and that this had a positive effect on their writing. The Writing for Pleasure Manifesto (Young, 2020) considers that if children experience pleasure when writing they are likely to feel more motivated and this in turn will lead to empowerment and greater enjoyment. Key elements of their manifesto are on children writing in purposeful and authentic ways and sharing their work with others. Young (2020) adds that it is important for children to write as part of a community, write within a context and have a sense of agency within their work. Comber (2016) believes that agency can also be achieved collectively when children work together and that their writing can have an audience beyond the local if children engage in practices such as blogging. Burnett and Merchant (2018), although writing about reading, make the point that when considering reading for pleasure there is a missing element from the argument which is the "nuanced insights into the pleasure generated as children engage with, through and around digital media" (Burnett and Merchant, 2018:63). They argue that reading for pleasure needs to be conceptualised to encompass reading in a digital age, this can be extended to engaging with and creating texts in a digital age.

At a similar time in New Zealand Gadd and Parr (2017) were considering the practices of effective teaching. They too emphasised the importance of purposeful literacy experiences and also advocate that a way to do this is giving children choice within their learning experiences, they note that collaborative practices are also effective.

#### 2.3 The importance of a socio-cultural approach to literacy

The socio-cultural approach to literacy is important as it helps us to appreciate the effects that new and developing technologies have had on developments in literacy within social and cultural contexts. Mills (2010) states that research from the New Literacy studies has focussed more on the changes in textual practices that have happened as a result of developments in technology and further away from a more traditional print-based approach. The research is ethnographic in nature and explores the development of literacy practices in different countries. As a result of more people creating and producing texts online new genres have developed such as blogs, wikis and YouTube films, in response to this those engaged in literacy research have argued that there is a need to re-define the understanding textual features and potential genres. Definitions such as Barton and Hamilton's (2000), cited above, need to be adapted to help us to understand and to value the changing nature of the literacies that people are engaged with. Street (1993:79) argues that literacy practices are "particular ways of thinking about and doing reading and writing in cultural contexts": this definition would fit digital practices found at home and in school. It is argued later in this chapter that children are immersed in digital literacy practices from birth (Marsh et al., 2017) and children's skills and knowledge of multimedia used at home are developing more quickly than practices in school (Arrow and Finch, 2013). It is therefore important that the various ways that children engage in in reading and writing in different cultural contexts is recognised by teachers.

#### 2.4 Multimodality

Equally important to the point above is an understanding of the changing nature of the texts that children consume and produce, both at home and at school. At the same time as Street was developing the New Literacy Studies the New London Group was, in 1996, suggesting that the term 'literacy' needed to be reconceptualised. The New London Group consisted of ten prominent literacy researchers including Gee (1992) and Kress (1993), who both favoured a socio-cultural approach to literacy. This group formed as a result of the belief that a different approach to literacy was needed to better reflect the changes to textual practices that had occurred as a result of changing technology. Although texts have always been multimodal, in that written words work visually as well as verbally through layout, font and design, this group placed a greater significance on the recognition of the multimodality of texts which included a combination of textual features including print, images and audio-visual texts (Cummins, 2015). In contrast to the New Literacy Studies the New London Group placed more emphasis on how language changes as a result of innovations in technology and increased multilingualism. They considered that within this changing world power relationships are constructed

and that schools need to adjust literacy practices to reflect this. They argue that because of this a wider definition of text needs to be developed that will recognise the changes that have occurred (Perry, 2012).

Kress (2015) considered that the advance in digital technology meant that actions formally completed by speech or writing would be achieved by other semiotic means. Concepts may be illustrated by gesture or an image rather than by words and that new modes of communication will take on these roles. Multimodal, semiotic compositions will replace texts that would have been previously written. He considered that it would change our concept of speech and writing. When describing technologies, he writes that by "'technologies' I mean a range of socially-made, cultural resources, which are involved in making meanings material; which have shaping effects on the meanings made; and which are involved in the display and distribution of these meanings-as-texts" (Kress,2015;52). He goes on to describe a "multimodal ensemble" (Kress ,2015;58) which is created from the use of many different modes, creating complex texts. Within multimodal texts the meaning is taken from all parts of the ensemble, each element only providing part of the meaning. Indeed, within Rowsell's (2013;3) work, drawing on Halliday (1978) , she considers modes to have 3 main functions, "interpersonal that speak to the audience, immaterial properties qualities that express ideas, values, beliefs, emotion, senses as ideational functions; physical features that materialise the other qualities and functions".

Mills (2010) points out that there were some criticisms around the extension of the definition of literacy to include new modes such as audio, gestural, spatial and visual as they "generate an overwhelming range of new content and genres for English teaching" (Mills, 2010:251). It was felt that it may be hard to generate curriculum content as the new definition of literacy was too blurred; Cope and Kalantzis (1997), cited in Mills (2010), argued however that it was essential to consider new definitions because of the rapid changes to the nature of text. They considered that new literacies built upon traditional literacy practices and that this would allow curricula to be constructed to reflect these new practices.

#### 2.5 What are digital literacies and how are they defined?

To be able to examine and fully understand teachers' digital literacy practices, it is important to define what is meant by the term digital literacies. This is a complex task, as the changing nature of

technology and digital literacies practice means that the definition will also need to be constantly evolving as digital literacies develop in response to changing technologies. Even though in 2022, we can make some predictions about new technology that is being developed such as Artificial Intelligence (AI) and robotics, as a teacher the constant changes can seem relentless and keeping up to date with technology can be expensive for schools. Facer (2013;142) however argues that predicting future developments should not be the focus and that researchers need to develop "robust, reflective and responsible" possibilities which arise from the complexity of the present. This would allow teachers to focus on the technology that they are using now and embed it within their practice. My research seeks to find examples of how this is achieved. Facer (2013;142) considers that research should avoid seeking clear-cut knowledge of the "future and should instead find ways of mobilising the present as a resource of powerful contingency and possibility".

Burnett et al. (2006) stress that it is important to acknowledge that how we communicate in everyday life has gone through a process of rapid change. Changes in the way we communicate are not a new phenomenon. Gillen (2017) makes comparisons between the current social media practices such as those taking place in the contexts of Instagram and Snapchat, and the huge increase in the popularity of the picture postcard at the start of the twentieth century. She argues that this was a popular social networking tool which, at that time, changed some of the ways people communicated. The fact that children will communicate through practices such as instant messaging, emails, Instagram and online chat forums means that those involved in the education of young people need not only explore the implications for classroom practice, but as Burnett et al. (2006:11) state the "definition and contexts of literacy practice". Although this was written over a decade ago it is still true today. Digital technology is still rapidly changing and classroom practice does not appear to have evolved alongside. Research by Marsh et al. (2017) confirms this. Buckingham (2015) argues that there is a need to expand our understanding of digital media in order to widen our knowledge of the relationship between home and school literacy practices. Mackey (2019:116) agrees stating that the "parameters of twenty-first century literacy are in constant flux. Digital affordances of interactivity, multimodality and a participatory stance have moved the goal posts in ways that sometimes feel as if they change the whole game". Eshet-Alalai (2004) considered that the lack of clear definition of the term digital literacy can lead to misconceptions and a lack of communication among the research community.

The term digital literacy, Kolaty (2011) argues, has been used since the 1990s to describe the ability to read and understand hypertext (words that link to a website). The term was first used in its present understanding by Gilster (1997) who described digital literacy as "an ability to understand and use information from a variety of digital sources without concerns for various competence lists" (Gilster, 1997 cited in Koltay, 2011:216). Bawden (2001 cited in Koltay 2011:216) describes four core competencies of digital literacy, "Internet searching, hypertext navigation, knowledge assembly and content evaluation"; this is similar to what is found in the computing curriculum (DfE, 2013). As can be seen, these focus upon the retrieval of information which is a limited view of digital literacy as it takes no account of the use of film or the social nature of many interactions online. Koltay (2011) however expands upon this to describe additional qualities that are found in digital literacy including aspects of critical analysis and how understanding how information is produced and presented online. They also emphasise the importance of understanding the traditional literacy tools used within media and social media. Authors such as Buckingham (2015) and Koltay (2011) consider competence lists to be somewhat restrictive when defining the term as it sets limits as to what can be included and links back to the skills-based notion of literacy as something to be taught rather than literacies as something people do.

Although these qualities begin to illustrate the power of online communication, there is still a lack of consideration of the cultural aspects of digital literacies in many of the early definitions. The definitions are more orientated towards online provision, giving no consideration to film and media. Despite being developed earlier, Eshet-Alalai (2004:102) does include a social and emotional aspect of digital literacy within a proposed framework. He argues that it is important, from a safety point of view, as he suggests that users need to be socially literate in order to "avoid traps as well as derive benefits from the advantages of digital communication", although this still does not recognise what has been established as the cultural aspects of digital literacies today. Alongside this, Eshet-Alalai's (2004) framework includes 'Photo-Visual Literacy' which outlines the skills needed to read more multimodal forms of text and linked to this is Reproduction Literacy which is concerned with individuals creating new information from existing information. Branching Literacy considers the movement from linear texts to what Eshet-Alalai (2004) describes as 'hypermedia', which is texts that are more multimodal and contain hyperlinks that require new skills when reading. The final part of the framework is Information Literacy, which appears in most definitions, where young people need to be able to evaluate and assess information found online, quickly and easily. These are the skills that Eshet-Alalai (2004:102) describes as "survival skills in the digital era" that users need to improve

"performance and survive a variety of obstacles and stumbling blocks that lie in the way within this special medium", he argues that a framework will improve communication among learners and developers, that will allow them to create accurate products and can be used as a basis for future research.

Martin (2006) however includes wider meanings of digital literacy, and its links to media literacy in his definition:

"Digital Literacy is the awareness, attitude and ability of individuals to appropriately use digital tools and facilities to identify, access, manage, integrate, evaluate, analyse and synthesize digital resources, construct new knowledge, create media expressions, and communicate with others, in the context of specific life situations, in order to enable constructive social action; and to reflect upon this process (Martin, 2006: 155).

In this definition Martin (2006) does include the term 'to enable constructive social action' so a cultural aspect is beginning to be being considered. Koltay (2011) however considers that many definitions of digital literacy focus too much on information retrieval.

O'Brien and Scharber (2008) recognise that literacy is a rapidly changing construct, and in a broad sense, that digital literacy is something that digitally literate people do, this still leaves unanswered what it is to be digitally literate. This is in contrast to other research which does not outline a finite literate state and regard digital literacies as being "more than a set of skills and competencies" (Dowdall and Burnett *et al.* (2021;6). O'Brien and Scharber (2008) do however, include a wide range of literacy practices within their definition, stating that people who are digitally literate may engage with texts including: blogs, wikis, social networking, podcasts and website creation which acknowledge the home literacy practices of many people (Brice-Heath,1983). They define digital literacies as "socially situated practices supported by skills, strategies, and stances that enable the representation and understanding of ideas using a range of modalities enabled by digital tools" (O'Brien and Scharber, 2008:66). This then allows the "bridging and complementing of traditional print literacies with other media". Writing in 2004, Eshet-Alkalai (2004:93) recognises that digital literacy is more than the technical skills needed to use new technology, he acknowledges the complex skills needed, including "sociological and emotional skills, which users need in order to function effectively in digital environments".

Buckingham (2015:23) states that digital literacy can sometimes appear to be a "minimal set of skills that will enable us to operate effectively with software tools or in performing basic retrieval tasks". He argues that digital literacy is often poorly defined in terms of what its overall aims are and what it involves. He agrees that many definitions are focussed on the retrieval of information and neglect the wider cultural use of the internet. It is important when trying to define digital literacy to recognise the potential persuasive nature of new media and the "emotional dimensions of our uses and interpretations of these media, or indeed of aspects of digital media that exceed mere information" (Buckingham, 2015:24).

The term digital literacy is frequently associated with "new technologies, educational technology and technology enhanced learning" (Potter and McDougall, 2017:31). Potter and McDougall (2017) state that the term originates from many sources, some of which are discussed above. Like Buckingham (2015) they state that it is mainly focussed on the skills needed to engage with technology, in order to gather information, and that its cultural aspects have very little recognition. They consider that the definitions used to describe media literacy have some things in common with definitions of digital literacy. In both instances, there is more of an emphasis on technical features and that social and cultural aspects are downplayed (Potter and McDougall, 2017). They further argue that perhaps by emphasising the technology and skills aspects of the definition the term 'media' will be avoided which has been portrayed negatively in some public commentaries insofar as it has been considered a 'soft' subject that does not have much educational value. As well as including the cultural aspects of digital literacy in the definition, it is as McDougall *et al.* (2018) argue, important to consider the wide, and constantly evolving, digital technology that children interact with out of school.

Although Kress (2003) was writing nearly twenty years ago, his work has influenced the field of literacy studies, he was part of the New London Group, discussed above which developed a fresh approach to new media which demonstrated that meaning is constructed from a variety of modalities interacting together to form new types of communication. These include texts such as multi-layered online sites, film and video games and complex YouTube pages. Merchant (2007) however considers this description to be limited and argues that "it is important to place written (symbolic) representation at the heart of any definition of digital literacy" and that "digital literacy could be seen as the study of written or symbolic representation that is mediated by new technology" in addition "its prime concern

would be the production and consumption of the verbal and symbolic aspect of screen-based texts" (Merchant; 2007:121).

In attempting to define digital literacy, a common theme that can be identified is the combination of many modes that are used to generate a text. Merchant (2007:122) adds to this arguing that "The central concern of digital literacy, however, is reading with and writing with new technologies...that involve the semiotics of written representation, regardless of how they combine with other forms of representation". Channon *et al.* (2018) agreed that digital literacy is about both the production and consumption of texts. The common area to both the definitions of literacy and digital literacy is writing, Merchant (2007) however identifies that the greatest area of difference between the two is when the forms and functions of writing online are considered alongside the texts produced and the contexts that they are located within. Writing online is produced and consumed in different ways, texts are more simply revised and are interwoven in more complex ways with the use of hyperlinks and multimodal images and as a result they become far more multimodal. Online production of text including film and writing allows the revision and updating of texts to be more easily completed and can encourage more collaborative writing. Chamberlain (2017) considers that students can gain a much larger audience to their writing if they become involved in activities such as blogging and that it encourages more active participation online.

Online spaces such as fanfiction sites encourage collaboration and multi-vocal replies, writing in response to what has been written. This means that the roles of readers and writers overlap, writers borrow from various genres and forms of writing "hybridise and mutate" (Merchant ,2007:122). Merchant (2007) argues that as a result the boundaries of what is written online, and its purposes start to blur. In addition, the speed in which writing is produced and consumed, and the lack of regulation around this, means that it is important for children, and adults, to have a critical understanding of the processes involved.

The rapid changing nature of technology and developments in the way we communicate has meant that definitions of digital literacy have constantly changed. Cannon *et al.*, (2018) argue that in order to incorporate all of the ways in which literacy has been defined since the New Literacy Studies a new term is required. They adopt the term 'dynamic' literacy: this allows for a broader definition and includes the textual changes that have occurred alongside the changes that have arisen in social

practices as a result of developing technology. Cannon *et al.* (2018) argue that no form of literacy is more important than another and state that even within the changing environment children are consuming and producing more varied texts than ever before. In line with Chamberlain (2017) they consider that when writers engage with online writing such as fanfiction sites, producing blogs or wikis far greater audiences can be reached. They argue that both traditional and digital texts exist together even though young people mainly produce and consume texts online. These changes, to how children access and create texts, is a key reason that a more fluid definition of literacy is needed. Cannon *et al.* (2018:181) contend that texts incorporate "printed, visual (still and moving image), audio" arguing that: "all literacy is multimodal, and it is all socially produced and in a constant state of change. It is all dynamic and, in this way, we see dynamic not as one more residual category of literacy, but as a term which encompasses and enlarges the overall vision of literacy". Although Cannon *et al.* (2018) are moving away from defining digital literacies to a wider definition of literacy, this example emphasises the social aspect of the term, unlike earlier definitions by Gilster (1997). Scott and Marsh (2018:2), when considering digital literacy in Early Childhood, favour the definition "children's literacy practices across a wide range of media" which has similarities with the work of Cannon *et al.* (2018).

Mills (2010), although not specifically defining the term digital literacies, examines the changes that have happened in literacy research since the expansion of new forms of digital communication. One key change that she identifies is the change in the power dynamic between what younger people consider to be authoritative knowledge and the adult interpretation of it. The advent of changing media and digital literacy practices has meant that young people view experienced peers online, rather than teachers and other authority figures as the expert when engaging with media literacy practices. This view has resonance with Carrington (2005) who argued that many of the texts that children engage with now are from outside of school or family where they traditionally came from. They are formed around popular and consumer culture, emergent electronic texts which often allow them to outmanoeuvre or subvert the instructions of adults. More recently Dezuanni (2015) argues that the developments in new media are changing the ways that researchers describe media literacy education and need to take into account the fact that young people frequently use technology to produce and consume everyday digital texts. Mills (2010) agrees with Merchant (2007), that the hybridisation of textual practices is a key feature of digital literacy. An example of this would be in fanfiction sites where Black (2009) noted that young females who contributed to online sites were creative in their writing; rather than mirroring genres that they were familiar with, they used multimodal methods to experiment with new genres. This practice links to another change that Mills (2010) noted, that there has been a cultural shift whereby young people are moving from predominantly consuming to producing new media. This resonates with definitions considered earlier that digital literacy is the production and consumption of texts and that the types of production are changing and becoming more collaborative and hybridised and therefore warrant inclusion in a definition.

So far, a consideration of the literature has revealed that there are many ways to define digital literacy and the terms change over time, they are often nuanced by the focus of the research undertaken, for example those that are focussed on media education may differ slightly to those that study online gaming.

More recently Dowdall and Burnett *et al.*, (2021) worked with both researchers and class teachers to create a resource that was designed to provide ideas and inspiration for classroom teachers They consider that children's literacies involve a range of paper-based, screen and digital communication, but note that children do not have equal provision to this. They state that literacies are rapidly diversifying in response to new digital formats and argue for a more integrated view of the digital as it is vital to social and communicative practices. Dowdall and Burnett *et al.* (2021;6) regard digital literacies as being:

"more than a set of skills and competencies; they are productive and meaningful practices that involve playful engagement, collaboration, criticality, affect and embodiment. They involve dispositions that serve to locate us in relation to others and within the social spaces that we occupy".

The discussion so far demonstrates that defining digital literacies is a complex task due to its multifaceted and ever-changing nature. However, for this study, my own interpretation, having considered the definitions described above, would be to define digital literacies as 'socially situated practices that involve both the consumption and production of dynamic multimodal texts'. Classroom practices should include meaningful, collaborative, critical engagement with texts that develop dispositions that help children to situate themselves within the social spaces that they will encounter. They are complex skills that involve social and cultural practices.

Although authors such as Dezuanni (2015:418) argue that the term text, "inadequately captures the materiality of digital photographs, video, audio and alphanumeric symbols deployed within digital culture" I am going to use the term within this work in line with the work of Kress (2015) who outlines the numerous modes that are included within multimodal texts, as discussed in section 2.4.

#### 2.6 The connections between home and school digital literacies

Having considered the nature of literacy itself and what can be described as digital literacies, I will now move on to establish why it is important to include it in classroom practice and the benefits that children derive from it. Within this study I am going to take a socio-cultural approach to literacy and argue that it is important to take into consideration the knowledge and experiences that children bring from home. This is in line with theorists in this area such as Dezuanni, (2015), and Marsh (2010) who have adopted a similar stance.

The changing nature of texts that children engage with at home, needs to be recognised within the classroom (Snyder et al.; 2002, Carrington; 2005, Marsh; 2010, Marsh et al.; 2017, Burnett and Merchant; 2018). Parry (2014) makes the argument that it is important to recognise the cultural capital of the children as it will make learning experiences more meaningful within the classroom. Her study found that children had a strong understanding of the language used in media and the narratives found within popular culture and were able to apply this knowledge to their own text production. Teachers in her study made decisions that meant that when choosing what to do, the children did not privilege a particular form of media and they could draw upon their own experiences of popular culture. Teachers need to encourage children to use their knowledge and experience of popular cultural texts and use this within their school literacy as this enables a focus on a wider range of texts as well as celebrating the cultural capital of the children. Parry (2014) found that by working with popular culture, children's cultural capital was more valued than printed texts would usually allow, and that this promoted inclusion within the classroom. Cultural capital as a concept was developed by Bourdieu (2010), Marsh (2006:164) defines it as "the store of experience and knowledge individuals acquire throughout life, influenced by family background and sociocultural experiences". Parry's (2014) example recognises the literacy practices that children bring from home that are often not reflected in the primary curriculum. Within the study a child, who would normally not participate, was motivated to do so because he had something to add to classroom discussion, they felt that their contribution was relevant. This changed the classes perception of them from someone who was challenging to work with to someone with specialist knowledge. Parry (2014) argues that it should be a fundamental expectation that children can draw upon their own experiences to progress in their learning at school. This example demonstrates that children who may struggle with printed texts may became more motivated if they are able to draw on expertise they have developed in other media. This can subsequently change the teachers' perception of children's literacy ability.

Arrow and Finch (2013) contend that children's multimedia practices at home are growing at a far more rapid pace than in school. Their study in New Zealand, noted that modern childhood is a digital one and they argue that there should be a move within Early Childhood practice to make use of children's home literacy practices, which are increasingly digital and often centred around popular culture. They found that home literacy practices were undertaken both individually and with others building on situated expertise, which may include the cognitive aspect of what Tunmer et al. (2006, cited in Arrow and Finch, 2013) describe as literate cultural capital, which are the early forms of knowledge that children develop at home and in early childhood settings. This is reminiscent of Burnett's (2016) findings that when at home children engage collaboratively with digital practices with family, friends and online communities. This collaborative nature is brought to school, but it does not reflect the more structured group work that is part of school (Burnett et al., 2014). The home literacy practices described above however, may not match the school literacy practices which are based upon what the dominant group in society, in this instance the government, feel to be important. The challenge for teachers is to create a frame of reference that will allow children to build upon their home literacy practices whilst developing the expertise that the education system demands. Similar views are found in Australia: Dezuanni (2015) notes that digital media and technology are part of young people's everyday life and even quite young children are involved in relatively complex media activities. He argues that schools need to take greater account of this when designing their curriculum.

Within the English context Marsh *et al.* (2017:48) state that from birth, children are immersed in "media and technology rich environment(s)". They argue that many young children come to school with a wide range of digital skills and are active users of technology, parents support this and feel that these competences are an essential part of growing up in the digital age. It was felt by Marsh *et al.* (2017) that schools and Early Years settings fail to embrace the use of new technologies. Stephens *et al.* (2013) argue that if schools are to really understand children and build upon their prior knowledge, they must understand the home cultures and literacy practices found within it. However, their study

found that if educational settings are to build upon the experiences and strengths that children bring from home, teachers cannot make assumptions about children's interests or skills in digital technology. The study, based in Scotland, found that children have very different experiences of technology at home. Stephens et al. (2013) argue that whilst socio-economic status does have an effect on access to technology, practices at home were influenced by many factors including class, child rearing practices, values and beliefs. Additionally, some of the findings revealed that gendered decisions were being made when interacting with technology. Stephens et al.'s (2013) study identified the key factors that influenced children's engagement with technology were the family's perspective on the effectiveness of technology as a tool and the ways in which it supported children's learning. Family interactions were also important including the presence of siblings and the amount of family time that is spent together as was children's own preferences. This research and that by others such as Burnett (2016) show that assumptions cannot be made about children's use of digital technology at home which means that there is a need for teachers to develop ways to explore this. With this knowledge teachers can create a curriculum that builds upon children's prior knowledge, and at the same time ensures that all of their class starts to become digitally literate. This view is supported by Marsh's (2010) work as she argues that although relationships between home and school can be conceptualised in various ways, it is important to appreciate the differences and to reflect upon how curricula and pedagogy can be informed by children's out of school experiences. She advocates that teachers need to be aware of children's out of school use of digital literacy as it has implications for educational policy and practice.

### 2.7 The value of digital literacies and their importance in school

If the skills and knowledge that children bring to school are to be built upon, by incorporating digital literacy into classroom practice, it is important to consider what benefits this would offer to classroom teachers and to children's school literacy. Facer (2012:98) however, adds a caveat to this, she considers the view of children born today, as being digital natives with the assumption that they enjoy natural relationships with new technology and therefore "might be thought to offer increased agency and a voice in shaping future socio-technology change is not the case". She considers that adults are using "young people's abilities with digital technology as a basis for adult adaptation to socio-technical change" rather than benefiting the young". Facer (2012) argues that young people's digital futures are predetermined with defined goals and rules shaped by other people and there is no potential for them to "challenge, question or reshape their futures" (Facer, 2012: 98). She goes on to argue that there is a need to provide an education that allows young people to be involved in and challenge the decisions

that are made concerning their future lives and roles in society. She contends that there is a need for schools to build the capacity for young people to question and offer alternative discourses to the futures they are being offered, and to prepare them to be part of the decision-making progress about their digital futures.

#### 2.8 Producing and consuming online texts

I have established so far that literacies in the home are often collaborative. Jones (2015) supports this view, that writing at home usually involves family members in purposeful forms of communication that are written for a specific audience. In the home children can choose what they read and write about, preferencing the genres that they enjoy the most. Gadd and Parr (2017) agree with this and consider that writing at home is an integral part of life and is increasingly including writing online, such as social networking, blogging and emailing. They found that the teaching of writing was most effective when children were provided with purposeful tasks that made links to children's home interests. It is interesting to consider this study from New Zealand, as their approach to education has similarities to ours (Thrupp, 2010). This adds to the argument that it is important to recognise children's home digital literacies practice which is discussed in section 2.6.

It is important to acknowledge that online spaces have caused changes in the literacy practices of young people., that continue to evolve. They allow for a hybridisation of more traditional printed texts and electronic ones. Online spaces allow children and young people ample opportunities for writing, they can offer the chance to write about their interests, write collaboratively with known and unknown people, write purposefully and for very large audiences. There is not space within this work to consider all the opportunities online writing offers, but I will reflect on research that explores some of the skills that children may develop through writing online, and whether schools can include such practice within their curricula.

# 2.8.1 Fanfiction – opportunities for reading and writing

One opportunity that schools could build on is the pleasure and purpose that children get from reading and writing online about their favourite texts. As established earlier in the chapter, writing for pleasure has been shown to be important in engaging children in literacies (Young, 2020). Fanfiction is described by Lankshear and Knobel (2011) as an online area where fans of a literary or media

phenomenon respond to the texts, they enjoy by writing narratives, poetry and songs based on existing plots and characters. They note that contributors often write as a remix, mixing their own stories and characters with established ones to form a new narrative, in essence creating hybrid texts (Merchant, 2007), which is a key feature of digital literacies. Fanfiction sites allow writing to be responded to by a large audience, Land (2010) argues that such sites allow young people to work collaboratively and receive constructive feedback on their writing. These sites also allow the authors to feel part of a community and enable their writing skills to be shaped by the feedback they receive. Curwood et al. (2013), drawing on the work of Gee (2004) (term these sites 'affinity spaces' and state that "young people can easily access an authentic audience who reads, responds to and even critiques their work. Within these spaces, youths create and share transformative works" (Curwood et al., 2013:417). Their study concluded that young people gained satisfaction and enjoyment from such sites because of the freedom of choice they allowed and the audience responses that they received. This is reminiscent of the collaborative nature of home literacy events outlined earlier and although schools have restrictions on sites that children can access online, it would be possible to set up an online forum for collaborative writing either within a school or a set of schools. Curwood (2013) and Apperley and Walsh (2012) believe that reading and writing within affinity spaces (Curwood, 2013) and computer games (Apperley and Walsh, 2012) does have educational value because the paratexts that are produced and consumed can develop children's experience with literacy and improve skills in both reading and writing. They are also valuable texts as they engage young people in reading and writing for pleasure and purpose. Apperley and Walsh (2012) define 'paratexts' as the texts that children consume as part of playing computer games, which can be quite complex and involve traditional print-based texts in the form of instructions and multimodal digital texts such as walk throughs and frequently asked questions.

## 2.8.2 Blogging – creating larger authentic audiences

Jenkin's *et al.'s* (2006) white paper describes participatory cultures, which have few barriers to expression but solid support for producing and publishing creations online. Within such sites more experienced writers support those with less experience, those who publish on them feel that their contributions matter and are forming social connections with other participants. Jenkins *et al.* (2006) outlines the benefits of this type of culture including peer learning and the broadening of cultural expression. They argue that it is important that all young people develop the skills and experiences to allow them to participate in such sites. Many fanfiction and affinity spaces online have areas where participants can blog, this method of publishing one's own writing became popular in the late 1990s.

It allows participants to publish their work to a worldwide audience. Many computer games have sites that are dedicated to them where participants blog, this includes Massively Multiplayer Online Gaming (MMOG) which Steinkuehler (2007) argues provides an opportunity for young people to engage in literacy practices. Although I am not arguing that schools need to engage with online affinity sites, Steinkuehler's (2007) work demonstrates the need for wider audiences for children's writing. Steinkuehler (2010) describes a young person she worked with whose literacy skills out of school, on a MMOG site, were far above his literacy skills at school which were considered to be below the expected average. Sites such as this offer young people purposeful literacy activities that are centred around their interests.

Because I want to understand teachers' practice it is important to examine research that has focussed on teaching digital literacies. Chamberlain (2017) has investigated using blogging as part of classroom practice observing that it offers children the opportunity to submit their work to a far greater audience and encourages active participation online. Along with Davies and Merchant (2009) Chamberlain (2017:255) argues that blogging increases children's motivation and inspires them to write and publish their work. Her study, which was based in an Australian elementary school, found "a significant improvement in students' critical literacies through engaging in virtual collaborative discussions in a blogsphere". Williamson *et al.* (2020) set up a project, using blogs, that was intended to encourage learning through the summer holidays, so that children's levels in reading and writing were maintained through the long break. They felt that by engaging in literacy-rich forms of reading and writing, the gap in learning that occurred in the long summer break could be ameliorated. Whilst they found that the results were not universal, they noted that the children who blogged the most made greater gains in achievement in both reading and writing and that the social participatory nature of blogging motivated the children. This establishes the value of collaborative practices within digital literacies education.

## 2.8.3 Working collaboratively for larger audiences.

It has been established that working collaboratively is a characteristic of children's digital literacies at home and that it is important to reflect this in the classroom (Burnett, 2016; Burnett *et al.*; 2014). Similarly, to blogging, wikis allow a space for young people to share their writing with a larger audience and read a variety of texts on subjects that they are interested in. They are sites where content is organised around a theme or purpose and can be edited by multiple participants. These sites also

support fans' knowledge and interest in popular culture as they are fully searchable, and contributors can share their knowledge and passions with others. Contributors to these sites work collaboratively to ensure they are of the highest quality; they do this not only for their own fulfilment but also to provide the best resource they can for online users (Lankshear and Knobel: 2011). An example of wikis being used in school is given by Curwood and Cowell (2011:112) who argue that their use helps students to "move from passive consumers to active producers" as working collaboratively supports their writing. Although this study is based in an American high school it does demonstrate the possibilities for an English primary classroom as the practice could be easily replicated. Their study used wikis as part of a poetry unit and although, the authors note, it did not improve the children's poetry, it did give the students a way of exploring their online identities with a wider audience within the school. The students had to consider how they wanted to be perceived by their peers and so developed ways of designing and expressing their online selves. How children and young people portray themselves online will be considered in more detail later in this chapter.

A study in England by Doult and Walker (2014:601) investigated the use of wikis with upper Key Stage 2 children, as they thought that children's writing could be scaffolded by writing collaboratively and that "online, multimodal, collaborative writing is a digital literacy skill which children need to learn and practice". Like Arrow and Finch (2013) the authors feel that there is a dissonance between children's home literacy practices and those they engaged with in school. They found that school writing was often perceived as irrelevant to pupils and imagined that wikis would provide a good opportunity for the children to participate in more relevant writing activities, in a collaborative way. The study found that although children found having their work changed by others quite challenging, they were very motivated to write and that subsequently the quality and quantity of their writing improved. Doult and Walker (2014) argue that using wikis allowed children more authentic writing experiences, which were more reminiscent of published authors "who are free from a scheduled form of composition and so able to write when ideas occur" (Doult and Walker, 2014:618).

# 2.8.5 Social networking – portraying ourselves online

As I wish to understand what teachers of digital literacy include in their practice it is important to know what social networking can offer children and teachers. Davis (2009) argues that online social networking is embedded in people's lives, this has meant that children and young people are engaging with it more regularly. Social networking sites are defined as digital platforms that are "dedicated to

facilitating a range of connections between people" (Lankshear and Knobel, 2011:183). Although Davis (2009) states that many people learn the skills of using such sites without intervention, she considers that increased use of them has implications for teachers. Like blogging and wikis, social networking motivates learning and encourages collaboration, which leads to children learning from each other and achieving more than they would alone (Davis, 2009). Davis (2009:29) goes on to argue that such sites are ideally suited to classroom learning as they have "structured formats and clear templates" which would allow children to examine closely the interaction between written and visual modes. With growing concerns about safety online she believes that teachers have a role to play in teaching critical literacy skills.

Over ten years ago Dowdall (2009) considered that social networking sites were a mainstream youth activity and that in 2008 almost half of young people between 8 and 17 claimed to be using them. She concludes that sites such as Bebo (an early American social media site) are rewarding for participants as writing is validated by friends who read and comment. The pages are dynamic and multimodal, and participants use them to represent themselves to others. In later work Dowdall (2017) argues that the sites allow their users to achieve social positioning online through their use of text, and that participants gain entertainment and satisfaction from their use. She notes that the number of under 12s using social media platforms have reduced and attributed this to their increased use of microblogging sites such as Twitter and WhatsApp as well as the safety discourse surrounding the use of social media by young people. This work relates to classroom practice, in that Dowdall (2017) concludes that children and young people derive pleasure from their use, and it gives them the opportunity to start to position themselves within the social networking platform. Dowdall (2017) suggests that as children move away from sites such as Bebo and Facebook they could be encouraged to consider new social networking sites which provided an audience for their writing such as blogging and her work demonstrates the need for this in the classroom. Wernholm (2018) agrees and states that by engaging with social media in positive ways, young people can practice how to construct their online identities and develop strategies for relationship management. Her study found several reasons that young people participate on social media sites, including socialising with friends, following trends, playing the most popular games and watching the most popular clips on YouTube. There was also interest-driven participation which included learning languages and many of the conventions expected in online participation, much of which would include the multimodality described by Kress (2010). Dowdall (2017) notes that the construction of some of the social networking sites have formulaic templates and as a result, opportunities for acts of design, as described by Kress (2010), are

restricted within them. Dowdall's (2017) research describes the crafting stage of design where authors consider the audience, the type of text and their intentions within their design. As a result of this research, she suggests that children be encouraged to "compose their texts for pleasure, to position themselves, to control their social world and...to enact the role of text producer" in order to become "critical and agentive designers" of text (Dowdall, 2017;179). These suggestions are reflected in the principles described in her work with Burnett (Dowdall and Burnett *et al.*, 2021) which are considered later in this chapter.

### 2.8.6 Popular culture and film

So far, the focus has been on written texts which are both print-based and digital but much of children and young people's digital literacies involve the use of visual texts which are part of popular culture. A networking site that has become increasingly popular with children and young people is YouTube and Dyosi and Hattingh (2017) contend that children's use of the site allows learning to take place. There is informal learning, some of which is self-directed, when participants are looking for information around skills and how to make things. There is also incidental learning taking place where children learn things like song lyrics though watching music videos. The study found that the children involved used YouTube constantly and see it as a form of entertainment. Willet (2009) argues that an important development for young people is the simplicity of sharing their work online to potentially huge audiences. YouTube offers this and creates online communities of users that have a shared interest, this is reflects Jenkins *et al.* 's (2006) findings that online networks are creating platforms where young people can produce and consume texts in different ways. Similar to Dyosi and Hattingh (2017) Jenkins *et al.* (2009) argue that this interaction encourages the development of knowledge which is shared between users.

In practice and from the literature there is little doubt that children find popular culture and film engaging. Marsh (2014) considered the benefits that virtual worlds offered young children, looking at the Club Penguin website she found that children engaged with a variety of literacy practices including writing messages and sending postcards. She stated that engaging with such sites allowed the opportunity for writing for pleasurable, meaningful purposes. This builds on her previous work where she found that by incorporating popular cultural texts into the curriculum children were motivated to learn and excited about the activities they were engaged in (March ,2000). Marsh (2000) argues that this is because children can make links between their home and school literacies, and it is important

that schools build on these experiences. Connolly and Burn (2019) drew similar conclusions from their study when they found that playing video games and engaging with narratives across various platforms provided enjoyable literacy practices for young people and this practice in turn increased their motivation to write when in school, these findings are similar to those by Parry (2014) described earlier in the chapter.

As explained in the introduction, film was the first form of digital literacy that I used within my teaching and that my MA study was focussed upon. Watts (2007) argues that children are not passive consumers of film they are rather, engaged in active meaning-making often involving discourse with those around them. She goes on to describe the engagement and enthusiasm that children demonstrate when interacting with film and argues that if educators wish to motivate children film is an ideal way to do it. Parry et al. (2011: 7) agree with this, their conference presentation, based on three separate research projects, found that "identified skills, knowledge and understanding seem to be significantly enhanced when analytical and creative work with film is integrated with other learning". They found that children's abilities to engage with and respond to texts improved as did their abilities to make inferences and deductions from printed texts. Children were more confident discussing authorial intent and were able to identify the features of genre. Furthermore, they found that children could make connections between texts and their own cultural identity and comment critically and reflectively on the texts that they were working with. Parry, Taylor and Bradley (2021) had similar findings when working with Year 5 children making films using Twine. They found that children regularly reflected on the films that they made, responding to them as readers and writers.

Goodwyn (2004) states that in the early twenty-first century, the moving image was part of the rapid increase in the use of multimodal texts in English teaching. He found that many teachers used film as part of their everyday teaching and that film is part of their everyday culture. Even working within the confines of the National Literacy Strategy film could be used to teach sentence and text level objectives (Goodwyn, 2004). Parry's (2013) work builds on this describing how children have access to a wide variety of film, viewing it both alone and as a shared experience accessing it on television, DVD and the internet. In her study she found that many children had extensive experience of film and from an early age were willing to express their preferences. Within the study children were happy to talk about their experience of film and often played creative games at home and at school based on them. Parry (2013) found that when the children in the study started to produce films, they drew on

their knowledge of children's films to devise plots, characters and settings. This resonates with Wohlwend and Buchholz's (2014) work in which they describe young children working with film whilst playing with toys and noted that rich stories were produced by mixing animation and live action film. Parry (2013) demonstrates that children need access to a wide range of films both familiar and unfamiliar within school and that the curriculum should enable the use of film and film production within literacy teaching.

As has been demonstrated there is a disparity between the home and school experiences of children interacting with digital literacies. I will now explore the need for an English curriculum that has digital literacies integrated throughout it.

#### 2.9 The curriculum

## 2.9.1 What is meant by 'curriculum' and teachers as curriculum makers

Before considering the current curricula for literacy in England and Scotland it is important to establish what is meant by curriculum and how teachers work within the constraints of it. The changing understanding of what is meant by curriculum making has become more important in recent years (Priestley *et al.*, 2021). Research has moved from considering curriculum to be a technical, prescriptive policy produced by experts outside of classrooms with teachers and children at the bottom of the hierarchy, to a model whereby teachers are seen as curriculum makers, negotiating curriculum design with others and drawing on their own experience and practical knowledge of the children that they are teaching. De Almeda and Vlana (2022) argue there are currently two trends in Europe concerning curriculum policies. One they consider to be progressive, emphasising the improvement of schools whilst ensuring equality. In this model, learning outcomes are centred around the needs of learners, teachers are viewed as designers of curricula and the development of skills for the 21<sup>st</sup> century are seen as important as is self-regulation. The second is the more traditional trend seen in Sweden and England, which focuses on traditional school subjects and regulations around input, leaving less space for teacher autonomy (De Almeda and Vlana, 2022). Despite these restraints, teachers can be seen to act as both curriculum makers and designers.

Priestley *et al.* (2021;1) argue that interpreting and working with curriculum texts that are set by governments or local authorities is a dynamic process which involves "interpretation, mediation,

negotiation and translation". This point resonates with Ball *et al* (2012) who consider that policy enactment involves individuals interpreting and recontextualising policy into actions. They contend that although policies rarely tell teachers specifically what to do, they often narrow the range of creative responses open to them. They argue that this is because policies are created for the perfect school so they cannot just be implemented, they have to be interpreted by each school and individual within it. Priestley *et al.* (2021) state that teachers will often find ways around working with even the most prescriptive curriculum so that it fits with their professional knowledge, beliefs and needs of the class. They see curriculum not as a constrictive document that is followed uniformly, but as a complex system that involves many actors interpreting and working within their settings making the curriculum work for the children they are teaching. This is similar to Trinter and Hughes (2021), who argue that teachers can better create learning experiences for their children if they are the ones designing them, as they know and understand their children's needs and see curriculum design as an authentic, problem-solving process.

Trinter and Hughes (2021) view the curriculum as a comprehensive teaching plan and suggest that teachers use what they describe as 'backward design' to adapt it for their classes. They advocate that teachers firstly identify the learning outcomes. They then consider how students can demonstrate they have learned the objective and finally design learning experiences that align with the first two steps. Their study also describes the Pedagogical Design Capacity (PDC), which relates to the autonomy that teachers have when designing the curriculum. Teachers understand what the curriculum expects and then make decisions about how they teach it. Although this study is set in the United States, it resonates with what teachers do in England and Scotland (Hizli- Alkan and Priestley, 2019). Hizli- Alkan and Priestley (2019) argue that curriculum making takes place as a process between different actors in the education system. They emphasise the importance of teachers as active curriculum makers in their schools and classrooms. Their study takes place in Scotland and Wales, where governments have developed curricula that support teachers to actively engage in curriculum making. One teacher in the study had worked in England, which is known for its prescriptive curriculum. They thought that accountability was not a problem in the English school they taught in, as they had been given the power to innovate. Teachers had the chance to explore possibilities and, as a result, developed a clear and accountable curriculum which was flexible enough to include pupil voice. This example relates to the work of Monson and Monson (1993) who argue that decisions about what and how teachers want children to learn should be made by professionals within the local schools. They consider that local authorities and senior leaders should

trust teachers to make decisions about the individual needs of their learners. This is similar to the argument made by Honig and Thomas (2004) who consider that local authorities and schools need to work together to negotiate the demands of the curriculum with the school's own goals and strategies. Priestley *et al.* (2021) describe this as micro curriculum making whereby either working individually or in teams, teachers plan lessons that customise national curricula into schemes of work that provide meaningful learning experiences for their particular schools or class. They argue that teachers mediate the official curriculum in response to their school culture, beliefs, resources and external accountability. They go on to describe nano curriculum making, which is decisions made around curriculum within individual classrooms, they give an example of individual work plans. This type of curriculum making occurs within the transactions that take place every day in classrooms where teachers and students work together within the curriculum to meet the required goals.

There are some important factors that may inhibit teachers in the curriculum making process Hizli-Alkan and Priestley (2019) found that the main concern of teachers was accountability alongside worries over political agendas, examination systems and poor leadership within schools. If teachers felt that they had a lack of agency or self-belief they were often reluctant to be involved in curriculum making. Teachers that did feel confident in the mediation of curriculum processes were in schools where there was strong leadership and professional dialogue between staff (Trinter and Hughes, 2021; Honig and Hatch, 2004). The teachers who were confident in curriculum making willingly cooperated with each other, often had previous experience of curriculum making and had high levels of job satisfaction. They felt that they had had their own agency to design a curriculum for their class.

De Almeda and Vlana (2022) argue that, in order to feel confident in designing curriculum, teachers need an in-depth knowledge and understanding of the specific subjects they teach, alongside a pedagogical understanding. They need to understand what has already been learned and how they can facilitate new insights. This is similar to what Grimmett and Chinnery (2009) found, that teachers need a thorough understanding of content and pedagogy to become curriculum makers.

### 2.9.2 The English and Scottish curricula for English

The current English education system considers literacy to be an autonomous model with aims and objectives that are reminiscent of the nineteenth century curriculum (Potter, 2013; Dowdall, 2009). The New Labour design for a curriculum for the 21st century in the late 1990s was "surprisingly conservative" (Burnett et al., 2014:6), good and basic skills were frequently mentioned but there is no reference to new literacies. The Primary National Strategy (2006) did include reference to the use of film and multimodal texts, but these were removed when the curriculum was revised in 2013. Reforms of the curriculum since 2006 have been more retrogressive with an emphasis placed on phonics in Key Stage One (KS1) and grammar, spelling and punctuation in Key Stage Two (KS2) (Burnett et al., 2014). There is still a strong emphasis on "fluent, legible and, eventually, speedy handwriting" (DfE,2013,5) and to be classed as 'working at the expected standard' at the end of KS2 children need to "maintain legibility in joined handwriting when writing at speed" and "use the diagonal and horizontal strokes that are needed to join letters and understand which letters, when adjacent to one another, are best left unjoined" (Standards and Testing Agency, 2018) but there is no mention of keyboard skills which children in the 21st century will use to compose. Marsh (2010) argues that educators must increase their knowledge and understanding of the literacy practices that children engage with in and out of school, this will allow them to develop a pedagogy and curriculum that builds upon a respect for children's knowledge and experience. She states that "not to do so is to risk the maintenance of an educational system which is predicated upon outmoded forms of literacy knowledge that reflect little of our daily lives or the needs of children in the twenty-first century" (Marsh, 2010, 312).

Although there is no reference to digital literacies in the curriculum for English, computing does have some elements that would fall within the given definitions of digital literacies. In Key Stage One pupils are taught to

"use technology purposefully to create, organise, store, manipulate and retrieve digital content"

"use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies".

In Key stage Two they are in addition, expected to

"Understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration".

"Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content use technology safely, respectfully and responsibly;

recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact" (DfE, 2013: accessed online March 2022).

These objectives can be seen to be focussed on the retrieval of information and the safety aspect of computing, but also mention the opportunities for communication and collaboration which are argued to be important earlier in this chapter.

Alongside this, Dowdall and Burnett *et al.* (2021:8) consider that it can be challenging for teachers to integrate digital literacy into existing curricula because of the continuing "high stakes accountability contexts which continue to impact literacy teaching and assessment practices in reductive ways". This reflects the work of Gruszczynska *et al.* (2013) whose research in ITE is discussed later in this chapter.

The Scottish curriculum for English is markedly different and has digital literacy integrated throughout. The definition of literacy provided by the Scottish curriculum is "The set of skills which allow an individual to engage fully in society and learning through the different forms of language, and the range of texts, which society values and finds useful" (Education Scotland, 2015: accessed 3/10/21). One of the themes that appears throughout is the ability to find and use information, including critical literacy skills, other skills include the active and creative use of ICT/ digital technologies. The approaches that teachers are encouraged to use include a focus on engagement, active and fun learning and becoming a problem solver. Education Scotland want the curriculum to be flexible and creative to allow for choice and challenge. It states that English work should be "collaborative and cooperative, promoting social interaction between children and young people". Digital literacy is specifically mentioned "Making effective use of a range of resources including digital technologies to provide appropriate support and challenge for learners" (Education Scotland, 2015: accessed 3/10/21). Although this is quite a narrow definition and does not contain many of the elements discussed above, teachers within Scotland are nonetheless encouraged to design their own curriculum within the general guidelines (Hizli and Priestley, 2019). The curriculum expects teachers to "provide real life contexts that motivate children and help them to see a purpose to their learning", and specifically acknowledges the fact that the use of technology can open up audiences for children around the world.

### 2.9.3 Planning and teaching digital literacy

Before considering what a curriculum should offer in terms of digital literacies, it is important to understand what research has found about planning for digital literacies within the classroom, especially as there is no mention of it in the curriculum for English in England. In a study by Doyle-Jones (2019) the teachers interviewed, who were drawn from those new to the profession to those nearing retirement, felt that by including digital technology within literacy lessons children became far more engaged and viewed it as a creative way to teach. They found that digital literacy helped to create meaningful writing opportunities. Teachers planned writing activities to be engaging and allow children to write for wider audiences, their use of digital literacy changed in order to meet the children's needs, one of the activities was using Twitter to summarise sections of text that they were working with. All teachers made time to find new apps and technology to use in the classroom and expressed a desire to help children to "create spaces for learning" through digital tools (Doyle-Jones, 2019: 9). They found apps and support through professional networks, students and peers and considered that as a result of their teaching the connections between home and school became stronger. All of the teachers interviewed were passionate about including digital literacy within their teaching because they felt that it can provide challenging activities for children that will allow them to demonstrate their knowledge. Their findings were similar to those of Cremin et al. (2020), who found that children became better writers when engaged with meaningful literacy practices. Doyle-Jones (2019) concluded that digital technologies present teachers with new ways of planning and teaching literacy and that this should contribute to the discussion of new literacies in the classroom, my study has many similar findings which will be discussed in Chapter 5.

There are many ways that teachers can plan for literacy and digital literacies and one example is offered by Hutchinson and Woodward (2014) who looked at a possible planning cycle within the American system. Even though it is not set within England or Scotland it does offer some interesting proposals. They had seen teachers who struggle with integrating digital literacy into English teaching and those who do it with ease and observed and analysed what teachers did to incorporate digital tools. They consider that teachers have a responsibility to integrate digital literacy into their practice and that children would learn print-based texts and digital texts at the same time. Hutchinson and Woodward (2014) suggest that teachers need to consider many aspects when planning, including possible problems with technology and how they can be overcome and whether technology is contributing the learning of the children. They emphasise the need for clear objectives and a consideration of the technology to be used and how this will contribute to literacy learning. Hutchinson and Woodward (2014) consider that a potential barrier to the use of digital literacy in the

classroom is a lack of professional development and knowledge as some teachers felt that they needed support with how to integrate it into the classroom, if it were included within the curriculum this may prompt funding for professional development.

#### 2.9.4 A critical approach

Increasingly, children's digital lives take place online and this requires consideration of how they present themselves, the communities that they interact with, and how their interactions online can serve economic, political and commercial interests. Merchant (2013) takes this view stating that schools need to develop children's critical perspectives around digital media and that a varied set of resources need to be developed, that go beyond print media.

Those that favour critical literacy in the traditional sense place their main emphasis on power and empowerment (Perry, 2012). Freire (2001) defined literacy as reading the word and the world. He considered that literacy is more than just a skills-based practice - it has much to do with the power relationships that are involved in literacy practices. He considered that literacy was a consciousness in which people make connections between the printed word and the world around them and use these connections to reflect upon their position within the world. Critical literacy aims to teach children to challenge the dominance of some languages and social practices over others. "Critical literacy practitioners accept that language and the way we use language to read, write, view, speak and listen is never neutral or value free" (Knobel and Healy, 1997:8). Within this approach no knowledge is considered neutral and Hall (2010:177) cites Meek's observation that "the great divide in literacy is not between those who can and can't read but between those who have and haven't worked out what kinds of literacy society really values and how to show literacy competencies in ways that gain affirmation and recognition". Classrooms that follow such an approach will use questioning to help children to understand texts more fully and take a critical approach to what they read. When considering digital literacy Burnett and Merchant (2011) state that critical literacy scrutinises the interactions between language, social groups, social practices and power, and that it is also focussed on how digital users are positioned by dominant discourses and practices.

Reiterating what was proposed in the Charter for Literacy Education (Burnett *et al.,* 2014), Burnett (2016) argues that there needs to be a consideration of the critical aspect of digital literacy. Children

need to understand the power relations that are found in social contexts mediated by digital technology, and how texts can position readers within them. This can be achieved not just by helping children become critically aware of the texts that they are reading, but also through their involvement in media production, where their own experiences and perspectives can be presented which will help them to challenge existing power relationships. Potter's (2013) vision for the curriculum suggests similarly, that a new literacy curriculum that encourages discussion of the use of media and online participation at home, would allow children the space to discuss any concerns they had and to support them in managing risk when engaging in online spaces.

McDougall et al. (2019) argues that the increased use of fake news, or disinformation has strengthened the need for a critical stance when engaging with digital literacy. Buckingham (2019:2014) describes fake news as "news that is fabricated and deliberately intended to mislead or deceive". McDougall et al. (2019:205) suggest that "Perhaps this point is where digital literacy is most needed, not necessarily to distinguish truth from falsity, or to distinguish between the subcategories of fake news or its motivations, but to read all digital media with the kinds of sceptical resilience that are generated by critical literacy". Buckingham (2019) advocates that media teachers need to consider media bias in school, and whilst he admits this can be problematic, he feels that by encouraging critical thinking within a broader understanding of media literacy teachers can begin to develop a greater understanding of the issue. When considering digital literacies there is a need for children to be able to both evaluate and use information in a critical manner if they are to fully understand it (Buckingham, 2016). Buckingham (2016) suggests that teachers need to encourage children to ask questions about the sources of information they work with, for example, how does it represent the world, what are the intentions of the producers and what the social, economic and political forces are behind it. He offers what he describes as a "basic conceptual framework" (Buckingham, 2016: 25) to help educators map the field. The framework can be used to structure work with texts, he describes representation in which children evaluate the texts they work with, considering the motivation of the authors, comparing texts with other sources and relating what they read to their own experiences. When working with information texts considering bias and reliability as well as discussing whose viewpoints and voices are promoted and whose are not. Language considers the construction of digital media and the interactive qualities that it provides, how sites are designed and the connections between them. Production in contrast would encourage children to think about the commercial interests of online sources and how they may influence the nature of what is available online and how it appears in searches, this expands to include interest groups who use online spaces to persuade and influence others. Finally, *audience* enables children to consider themselves as producers and consumers of text, how particular texts are aimed at them and how they respond to them in turn.

So far, this chapter has established that critical literacy needs to be considered when integrating digital texts and social media into a school setting. The complex interactions that are part of the consumption and creation of digital texts means that, as Burnett and Merchant (2011,45) argue, a "more nuanced understanding of the relationships between texts, audiences, information and power has emerged". Multimodal texts, found online, may appear in different ways on different devices, they may change and be updated rapidly. Because digital texts have become more fluid it has become more challenging to identify ideology and positionality within them, as a result readers need to be aware that the potential meaning of text may change between readings (Hinrichsen and Coombs, 2013).

Burnett and Merchant (2011) recognise that critical literacy is problematic in the digital age, because of many of the issues discussed above, and suggest a model that could be used by classroom teachers as part of their practice. The model has 3 aspects: *practice; networks, and identity. 'Practice'* would focus upon evaluating and exploring how children interact in online and offline environments, rather than considering digital technology. Burnett and Merchant (2011,51) consider that new media are characterised by:

- A tendency to re-mix or re-work existing material
- Alternative connections with known and unknown others
- Opportunities for multiple presentations of the self
- Multimodality and an emergent modularised design
- Blurring of the distinction between consumption/production or reading/writing.

By analysing practice children could be supported in their exploration of meaning-making as well as their relationships, both on and offline. This can lead to reflections on social media and the knowledge of what can be achieved, as well as the possible advantages and disadvantages of such platforms. *Networks* focuses on the connections that children may make through a range of contexts and

environments, this is different from the traditional approach to critical literacy in that there is a focus on who children communicate with and the significance of this rather than looking in detail at particular texts. Classroom practitioners could explore what other communities the class could make connections with and how this would benefit their learning. This resonates with the work of Hinrichsen and Coombs (2013) who state that rapid changes in technology allow new and unexplored communities to become available at any time. Finally, Burnett and Merchant (2011) describe the notion of identity which would allow children to explore their identities and how they can be established in different contexts and ways in which their identity can be presented online. This is very similar to the stance taken by Burnett *et al.* (2014) who consider that children need to understand how to position themselves online and be aware of how they are positioned by others.

# 2.10 A curriculum for the 21st Century

It has been argued by many in the area of new literacies and digital technology that a key skill that children need to develop is their ability to create, consider and manage their online identity (Burnett, 2016; Burnett *et al.* 2014; Potter, 2013). Supporting children to become creative, confident critical users of new media is becoming even more essential in an era when it is important for them to understand how they and others represent and conduct themselves online. Increasingly children are producing and accessing texts online as well as negotiating and 'curating' their lives online (Potter 2013). Merchant (2013:157) considers that some schools are failing children as they are not taking account of the new media that is available. He argues that there is a need to recognise and understand the digital culture that children bring to school. Missing the types of text production and consumption that children use in everyday life may mean that schools just develop a "a narrow range of print literacy skills". Bulman *et al.* (2021) note that the English curriculum has no mention of digital literacy, and although there is more of a concern around the effects of social media and fake news and a need for more criticality, school improvement and professional development are more likely to focus on grammar and promoting children's literacy rather than reflecting on the nature of literacy itself.

Arguably, the curriculum needs to be reworked to take account of the wide range of media that children are engaged with. Burnett (2016) and the Charter for 21<sup>st</sup> Century Literacies proposed by Burnett *et al.* (2014) supports this, maintaining that children need to be confident in both how they and others position themselves in the range of activities and communications they engage with online. The charter goes on to state that because so much of their life will be online it is essential that they

have experience of critical engagement with digital texts and that critical literacy needs to move beyond the printed text and consider how children position themselves online. I believe that considering the Charter in detail is important for this study as their research demonstrates what could be possible in classroom practice.

Burnett *et al.*'s (2014) Charter for 21<sup>st</sup> Century Literacies was developed after consideration of many examples of innovative practice that involved "harnessing the potential of new technologies to engage children in activity that reflected the new literacies of everyday life in an authentic way" (Burnett and Merchant, 2018:2). They reviewed policy developments in several countries and together with their co-authors (Burnett, Davies, Merchant and Rowsell) Burnett *et al.* (2014) propose that by following the principles outlined below, teachers and educators may be supported in developing literacy practices within schools, and in my case, a university. By doing this, they argue, children will be able to engage in critical and creative ways with a variety of digital media. The principles are as follows:

- "An empowering literacy education involves a recognition of the linguistic, social and cultural resources learners bring to the classroom whilst encouraging them to diversify the range of communicative practices in which they participate.
- An empowering literacy education involves understanding how socially recognisable meanings are
  produced through the orchestration of semiotic resources.
- An empowering literacy education involves a range of activity that includes improvisation and experimentation as well as the production of polished texts.
- Empowering literacy education values collaboration in text making and is emancipatory in the way it facilitates access to others' texts and ideas.
- An empowering literacy education involves a recognition of the affective, embodied and material dimensions of meaning making.
- An empowering literacy education involves engaging with others in a variety of different ways.
- An empowering literacy education involves exploring how you position yourself and you are positioned by others through text.
- An empowering literacy education occurs within safe, supportive spaces that promote experimentation.
- An empowering literacy education involves developing an understanding of the changing nature of meaning making" (Burnett et al., 2014:162-5).

The principles above support the theoretical stance of The New London Group (New London Group, 1996) who put forward the idea of multiple literacies. It also recognises the social and cultural aspect of literacy that are described by Street (1993). The knowledge of digital media that children bring to school would be recognised and built upon, and similar to Stephens *et al.* (2013) there is also an acknowledgement that it cannot be assumed by teachers that children have an innate ability to use digital media and that their experiences of it may vary. As described earlier in the chapter, it is important that teachers take time to find out the knowledge and experience that children have in this area, and that barriers to its use need to be identified.

Burnett et al., (2014:162) argue that children need to "select, critique, and use different modes and media and use them creatively, persuasively and for different purposes". This builds upon the theories of multiliteracies (Kress, 2015) and includes children's abilities to navigate and combine media, they need to be able to create and consume texts from a variety of resources, both digital and printed. Dowdall (2017) has similar categories in her 'tentative framework', designed to critique and consider current pedagogy and curricula for the teaching of writing. She considers that text production should focus on pleasure and development of agency and therefore provide satisfaction for the writers. Dowdall (2017) also emphasises the importance of preparing young people for how they position themselves online, similar to Burnett et al. (2014) who argue that schools have an important role in bringing together young people to participate in an assortment of literacy practices that they would not usually encounter. Young people need an awareness of the range of literacy opportunities online and how to confidently position themselves within them. Schools should provide a safe environment where young people can experiment with new media in a supportive and challenging environment. Alongside this critical engagement is important, it needs to go beyond text analysis and include consideration of how children can and want to be viewed online. Burnett et al. (2014) argue that, rather than literacy being dispassionate, children should be encouraged to share their emotional responses to text and explore what they mean to them. This is reminiscent of the work of Eshet-Alkalai (2004), who recognised the emotional skills that children need to operate in digital environments. By supporting children in such ways, teachers can help children to explore texts critically. This aspect of digital literacy was discussed in section 2.9.4.

Similar to Dowdall and Burnett *et al.* (2021) Burnett *et al.* (2014) stress the importance of children being engaged in tasks that allow them to play and improvise through which creativity will be

generated. Children should be encouraged to set their own agenda and take part in meaningful projects and accommodate the possibilities that occur. Collaboration is a dominant theme in the literature explored earlier in this chapter, stressing the positive effects of any collaboration as part of producing and consuming texts online (Burnett, 2016; Davis, 2009). Burnett *et al.* (2014) argue that teachers and schools need to find ways to reflect the collaboration that is found outside of school in many literacy activities, which would mean moving away from structured approaches to collaboration and towards looser models. This is reminiscent of fanfiction or blog sites where people come together and share their work, and it is both critiqued and used as a resource by others. Doult and Walker (2014) argue that such collaboration allows children more authentic writing opportunities. Children benefit greatly from working and learning together, interacting with multiple sites to both produce and consume texts. These skills, Burnett *et al.* (2014) contend, are likely to be needed for life in the twenty-first century.

Burnett *et al.* (2014) consider that literacy education should be about more than enabling economic growth; they argue that it must support young people's current and future participation in a range of activities and communities, Dowdall and Burnett's (2021) principles also support this. Jenkins *et al.* (2009) outlines the benefits of digital literacies as they to empower young people in participation of civic life.

Burnett *et al.* (2014) recognise that the types of text that children engage with are likely to remain in flux and that the skills that children need to will also change. This is similar to the argument by Mackey (2019) discussed above. This has implications when designing an English curriculum as the development of new technologies and practices will mean that curriculum content will need to be continually reviewed.

In 2006 the Cambridge Review was launched which was an independent enquiry that considered the current circumstance of primary education and made suggestions for its future. It was led by Robin Alexander, based at Cambridge University and funded by the Esmèe Fairbairn Foundation. Subsequently the Cambridge Primary Review Trust was set up whose mission was to "extend and build upon the work of the Cambridge Primary Review and advance the cause of high quality primary education for all children in accordance with CPR's core aims, principles and evidence" (https://cprtrust.org.uk/, accessed January 2022). Burnett (2016) was commissioned to produce a

report on digital literacy, which strongly advocates for the inclusion of digital literacies within the curriculum. The report argues that teachers need to prepare children for their future in the digital world, as well as ensure that they are safe effective users of digital technology now. Burnett (2016) calls for a recognition of children's sophisticated use of digital technology on a day-to-day basis, but also acknowledges the anxieties that some teachers and parents experience over children having extensive screen time. As established earlier, not all children are immersed in digital environments from birth and access to digital technology varies considerably, reiterating the finding of Stephens *et al.* (2013), discussed earlier in the chapter. These issues are not just related to children's socioeconomic circumstances but also to the ways in which digital practices are viewed in the home. I would argue that in some areas the speed of broadband available would also have an effect. There are inequalities linked to gender, ethnicity and income, often reflected in the way that they are used in the home. Because of these differences I consider that it is important that children in school have a curriculum that has a consistent use of digital technology within literacy.

Within the report Burnett (2016) makes the case for changes to the English curriculum so that it recognises the types of practices that children engage with outside of school and the wealth of media that is available to them. She argues that the curriculum needs to provide opportunities for children to draw upon a wide range of digital resources including moving images and more traditional printbased texts. That children need the skills to locate and evaluate information online and to understand the importance of how they present themselves and communicate in online spaces. As a result, the primary literacy curriculum should give more consideration to multimodal texts, as children need experience of using a range of modes and media. The curriculum needs to support the cultural dimension of digital literacy and there is a need to recognise that digital technology will be used in varied contexts, and children need to be encouraged to reflect on their use of technology within the contexts that they use them. Therefore, schools need to support children in their digital lives, for example, planning for opportunities to create texts to share with wider online audiences and gaining feedback as a result. These ideas support Potter's (2013:78) work as he stresses the "need to connect with the lives of learners" and develop a curriculum that "is based around the "what" and the "how" of the media that is made, shared, consumed, interpreted and exhibited in lived culture". He considers the importance of talking to children about their home cultures, as a successful pedagogy is one that understands the agency of children in their learning. Within his work he argues for a breadth in the curriculum and a need to explore the critical dimension of digital literacy. Potter (2013:80) contends that:

"As part of their entitlement, children and young people should experience a curriculum structure which is broad enough to encompass film, animation, games and social media on a range of platforms alongside learning form, as well as with older forms of expression. All this should happen recursively through the time at school".

More recently Dowdall and Burnett *et al.*, (2021) argue the need to make literacy teaching relevant and inclusive for all learners. They suggest that teachers could plan activities that allow children to produce, consume and share digital texts alongside paper-based texts within a unit of work. To help educators, working with a group of researchers and class teachers, they devised a set of principles to aid teachers to integrate digital literacy within a broad and inclusive literacy curriculum. From these principles (appendix 1) they developed suggested guidelines for teaching and learning digital literacy:

- 1. Authentic learning opportunities involve motivating, meaningful activities that matter to learners.
- 2. Play and playfulness provide rich opportunities for experimenting and exploring different media.
- 3. Teaching needs to respond flexibly to learners needs and strengths.
- 4. Open-ended activities create space for learners to draw on communicative repertoires developed outside school.
- 5. Children need opportunities to engage with a wide variety of texts if they are to expand their communicative repertoires.
- 6. Readership and authorship involve making choices about what to read and write/ create.
- 7. Print and digital literacies support one another within communicative repertoires.
- 8. Working on screen can promote collaboration which presents rich learning opportunities.
- 9. Unlike handwritten texts, digital texts can be easily changed, offering increased opportunities for refinement and remix.
- 10. Digital texts can be shared with a wider audience than print based forms .

(Burnett and Dowdall et al., 2021:56).

There can be seen to be similarities with the Charter for Literacy Education (Burnett *et al.*,2016) as they both emphasise the need for children to work collaboratively and have the opportunity to work with a variety of modes and media as well as the need for playfulness within their activities. I have used these guidelines alongside an adapted grid version of Burnett *et al.*'s (2016) principles to create grids that will both present the data and compare whether the teachers' pedagogy reflect the charter and principles.

Dowdall and Burnett *et al.* (2021) go on to suggest guidelines for the assessment of digital literacies. They note that the teachers in their case studies used existing assessment frameworks to assess the learners progress, including literacy objectives, how the children were learning or specific digital skills. They argue against producing linear skills as this could lead to another skills-based framework and instead suggest guidelines for assessment. They consider that teachers should assess more than skills and words, looking at children's dispositions as well across multiple literacies. They feel that it is important to find out what children already know and can do across different media. Peer assessment should be encouraged alongside self-assessment. Teachers should respond authentically to children's work in both authentic and playful activities and be aware of assessment opportunities that may occur in unplanned moments.

## 2.11 Digital literacies teaching in other countries

It is important to examine some research on how the teaching of digital literacies is approached in other countries to see if it reflects any of the practice observed in my study. Whereas digital literacies are not included in the English curriculum they are in other countries. Madsen, Archard and Thorvaldsen (2018) compared how the teaching of digital technology is approached in ITE in Norway and New Zealand. Since 2006 the Norwegian curriculum has had the requirement that the use of digital technology should be used in all subjects and at all levels in schools. Madsen, Archard and Thorvaldsen (2018) state that despite this there is a gap between what government policy intends and what actually happens in school. In contrast to the formal requirements of the Norwegian curriculum, the New Zealand curriculum introduced key policies to support teachers in all sections of the profession with their use of digital technology, they were not directives but aspirations. A key goal in New Zealand was to have digital fluency in an attempt to make teachers and student teachers digitally literate. In New Zealand the goals were linked to the use of language and texts whereas in Norway they are listed as key skills which have equal weight to speaking and listening, reading, writing and

numeracy. Madsen, Archard and Thorvaldsen (2018) conclude by looking at the global perspective and note that the European Commission states that in order to catch up with Japan, the USA and South Korea, action is needed in this area.

Although based on teachers in Lower Secondary Schools in Poland, research by Potyrala and Tomczyk (2021) can be considered relevant to teaching in England. They noted the importance of teachers keeping up to date with changing technology and identified the skills and competencies that teachers needed in digital literacy to ensure that their students became part of the digital community. Their work, unlike this study, was focussed upon digital literacy due to concerns over e-safety. They found that when teachers were confident in their use of digital literacy it built their authority when teaching the class who often had more experience using digital texts. Potyrala and Tomczyk (2021) also found that teachers who had a strength in one area of digital literacy did not always have skills in all areas.

# 2.11 Initial Teacher Education (ITE)

Having described the importance of digital literacies, there is a need to consider briefly how it is taught in Initial Teacher Education, as this could be a factor that may explain why some teachers incorporate it into classroom practice and others do not. This section will consider an example from England, as well as from New Zealand and Norway. This comparison is useful to consider as both countries have digital literacies as part of their curriculum unlike the curriculum of England.

Gruszczynska *et al.* (2013) stress the importance of new technologies in teacher education and the exciting opportunities that it offers but recognise that the education system puts pressure on schools to develop specific marketable skills that can be measured. They consider that this has led to a narrowing of the curriculum which is focussed on student achievement in maths and literacy. In England digital literacy is found within the computing curriculum rather than the English one. They further recognise that there is little support given to Newly Qualified Teachers (NQTs) as they begin their career.

Gruszczynska *et al.* (2013) note that not only is digital literacy characterised by fluidity in that new devices, programmes and applications constantly become available, but there is also a diversity in the

ITE provision that trainees receive. Botturi (2019) argues that the promotion of digital literacy in ITE is important and that there should be a framework, standards or useable materials to promote it. She notes that digital literacy is a marginal topic in most ITE programmes and although her study is based in Europe, I would suspect it to be similar in English provision.

Marsh (2006) undertook a study involving Primary ITE students analysing their beliefs, attitudes and experiences of using popular culture as part of their literacy teaching in England. The data were analysed within a framework of the work of Bourdieu. This study did not focus specifically on digital literacies, although they may have been included, but nevertheless it gives an interesting insight into why student teachers may find it challenging to include them in their practice. At the time of the study Marsh (2006) notes that teacher education had, as a result of successive reforms, lost much autonomy and become more centralised as a result. The programme of study that the students followed at university was similar to others at the time (Marsh, 2006), where English sessions followed a similar syllabus closely linked to the National Literacy Strategy (DEE, 1998). Within the university that this study took place there were no sessions on media texts or the use of popular culture.

Throughout the study several of the student teachers conveyed positive attitudes around the inclusion of popular culture within the curriculum, these were focussed on how popular culture texts could be used to motivate children rather than as a literacy practice in its own right and as a way of introducing critical literacy skills. Marsh (2006) found that, despite the generally positive attitudes towards popular culture expressed by the students the actual use of it on placement was minimal. Students explained that they were influenced by the class teacher, which Marsh (2006:169) describes as the student habitus being "shaped by the norms of the school". Marsh (2006:169) describes habitus as being "set of dispositions created over time and shaped by the social structures in which they are formed, in turn shaping those structures and thus perpetuating elements of that structure". She goes on to note that the students often described the constraints that they found within the school in regard to teaching and learning.

Another interesting finding was that the student teachers were aware that they had not considered using alternative ways to the more traditional forms of teaching. Marsh's (2006;169) data found that the students had

"Readily accepted the status quo they found and had internalized the power structures within schools, not questioning the capricious nature of the rules thus set down. The arbitrariness of the construction of the literacy curriculum was not recognized by the students, and they reconstructed its primacy through the choices they made".

Many of them took a passive stance in reaction to the curriculum, their practices were further restricted because student teachers are in a relatively powerless position when on placement. A key finding from this study was that ITE curricula should "provide student teachers with the opportunity to analyse the sociocultural, economic and political restrictions to their practice" (Marsh, 2006;172).

In a similar but much larger study, investigating teachers and pupils' use of media, Burn *et al.* (2010) found that the majority of teachers valued the use of media in their own lives and were enthusiastic about using them in class. They felt that pupils' media cultures should be reflected in the curriculum that they engage with. Burn *et al.* (2010:197) note that in their experience of ITE "the forms of cultural distention both implicit and explicit in the training of English teachers" alongside the curriculum that they are expected to teach, may mean that teachers do not introduce their own use and knowledge of popular culture into their teaching. The imposition of a strict curriculum and testing framework were seen as being one of the main reasons that teachers did not include popular culture and media as much as they would have liked. The lack of a national training programme for media education and the focus on technology over more social and communicative aspects of media also contributed. This alongside teachers' own dispositions, and gaps in knowledge were also seen as possible reasons for the lack of inclusion of popular culture and media within their teaching. These reasons can be seen to be similar to the influences that affected the pedagogy of the student teachers in Marsh's (2006) study. Burn *et al.* (2010:197) conclude that the broader problem is the "wider culture and politics of the education system" rather than teachers' interests and desires to teach popular culture and media.

Burn *et al.* (2010) found that teachers are not only influenced by their own personal experiences of media, but also within the wider context, their cultural orientations and values. This reflects the findings of Marsh (2006) which are cited within Burn's (2010) study. Within this particular report Burn *et al.* (2010) focus on the responses of secondary aged children and teachers who work in both primary and secondary schools. They found that there was no ostensible digital divide between teachers and pupils, and interestingly there were no apparent generational differences between the teachers. There were some differences between the type of media that staff, and pupils used, for example few

staff members played computer games whereas the majority of pupils did. When considering online media, the differences were around the purposes they used it for rather than the extent that they used it. Teachers tended to use it in a functional way, banking, shopping or to do with work whereas pupils used it in a more social way through social media.

Burnett (2011) explored the digital lives of a group of her ITE students in order to more fully understand the relationship between their use of digital technology at home and their use of it within school. She found that their use at home focused on social media, mobile phones and the internet for shopping, none produced any media or were engaged in playful social practices such as gaming. They viewed new technologies as being central to their lives out of school, in contrast their use of digital technology in the classroom was more limited. Burnett (2011:438) notes though, that this experience was "highly contingent on context which had implications for their use of digital technology in the classroom". Within school their use of technology was focused on the use of interactive white boards and the associated presentational software. Whilst their use of digital communication and networks was centred around communication with colleagues and peers and discovering resources to support their practice. One student did not see the need for the children in the class to use technology to communicate beyond the school, she perceived the school context, and her identity within it as being separate from her identity at home. One student however, described how she was discouraged from using technology by a mentor because, there was not enough time for the use of something like film, due to the pressure of SATs. The students' use of digital technology was linked to their identities, accountabilities and the types of teachers they thought they could be. Burnett (2011:447) suggests that "there is a need to encourage teachers to reflect on the relevance of their personal digital literacies". This has implications for ITE providers who will need to support student teachers to recognize the relevance of their digital practices within the classroom.

Madsen, Archard and Thorvaldsen (2018) found that in both Norway and New Zealand there was some resistance to the teaching of digital literacy in ITE. In New Zealand the government provides professional development for ITE tutors, however individual schools still feel the necessity to provide novice teachers with training as they do not feel that ITE has fully prepared new teachers to implement digital literacy in the classroom. There appears to be a dissonance between what the government expect children to be able to do in New Zealand and what they require of ITE tutors. In Norway it was found that although 70% of ITE tutors claimed that they used digital technology regularly in their

teaching, they did not consider it essential for good teaching. Madsen, Archard and Thorvaldsen (2018) consider that Norwegian teachers are resisting the mandatory policies around the teaching of digital literacy, whereas in New Zealand, where it is not mandatory, teachers want to improve their skills in this area. This can be compared to England where digital literacy is not featured in the curriculum at the time of writing.

### 2.12 The 2020 COVID pandemic

The COVID-19 pandemic caused many countries to lock down their populations or issue a 'shelter from home' notice. This meant that for schools in the United Kingdom most of the teaching for primary school children was online, with only the children of Key Workers in school. In England, during the first lockdown, primary schools provided a mixture of live online lessons and pre-recorded lessons. This study takes place in the middle of the pandemic and data was collected during the lockdown, so it is important to consider research from this time to see if it reflects what was happening in the schools in this study.

At the time of writing research on children's literacy practices in the 2020 Covid pandemic, when children were learning at home, is still emerging. Chamberlain *et al.* (2020) investigated how some schools in the United States had reacted to the transition to online teaching, they also considered children's home literacy practices within an area of Southern England. Chamberlain *et al.* (2020:243) note that the ways in which children write at home are often much broader than those that are apparent in their schoolwork, as has been established in previous sections. They found that as the lockdown progressed children started to produce "new and hybrid literacy practices appropriated and recontextualised within new communicative spaces". The National Literacy Trust's most recent report (Clark, Picton and Lant, 2020) has found similarly that a small number of children have developed more positive attitude to writing and new writing practices during lockdown.

In the United States, Chamberlain *et al.* (2020) discovered that children in one school started to use videos to produce their work rather than written forms of text, they also used virtual journals and sometimes animated drawings as a way to tell their stories. The school involved said that "Literacies in multiple formats helped us to keep connected as a community" (Chamberlain *et al.*,2020:245). There was a new flexibility in the ways that children could engage with literacy learning. Much of the

work was undertaken on the platform Seesaw which documented their learning and is shared with parents. When studying a class novel, the children often chose to respond to story through multimodal texts including:

"...photos, drawings, graphics and even video...students were no longer restricted to just print technology; they had the opportunity to document their learning through a linguistic mode, visual elements, drawing and video production" (Chamberlain *et al.*, 2020:247).

There is some emerging research about the effects of the lockdown on parents, teachers and children. A study by Misirli and Ergulec (2021) gives some insight into how parents in Turkey managed this situation in a study involving 983 parents. They observe that in normal circumstances online learning is well considered and planned out, however in this case it was emergency remote teaching. They cite Hodges *et al.*, (2020, cited in Misirli and Ergulec 2021:6) who state that "The primary objective in these circumstances is not to re-create a robust educational ecosystem but rather to provide temporary access to instruction and instructional supports in a manner that is quick to set up and is reliably available during an emergency or crisis". I would argue that this was the case in English schools in the first lockdown, during the second lockdown schools had more experience and were better prepared for the situation.

Misirli and Ergulec (2021) found that remote teaching usually focussed on the Core subjects of maths, literacy and science with most remote teaching for young children involving parents being with their children. Many parents felt that online learning was not suitable for young children, and some felt that digital technology was not appropriate for them either. Parents voiced concerns over the lack of interactivity that children experienced, as well as the increased screen time that was involved. Teachers found remote teaching burdensome, as they struggled to support their own children whilst working at home themselves, the research concludes that the experiences were challenging for both parents and children.

Interestingly in terms of my research, Misirli and Ergulec (2021) reported that parents considered that their children gained skills in the pandemic in terms of digital socialisation. They maintain that during the pandemic, teachers, parents and children all had to develop their digital literacy and technology skills to survive remote teaching. They add that this has accelerated the adoption of digital skills as

well as increasing engagement with technology they go on to suggest the need for further research in this area.

This chapter has discussed many of the definitions offered for the term digital literacy / literacies which enabled me to propose my own: socially situated practices that involve both the consumption and production of dynamic multimodal texts. Practices should include meaningful, collaborative, critical engagement with texts that develop dispositions that help children to situate themselves within the social spaces that they will encounter. They are complex skills that involve social and cultural practices. Understanding the many definitions will allow me to compare the teachers' definitions and practices against them. I have also examined the benefits of including digital literacies within the primary classroom and some of the ways that this can be accomplished. A consideration of what a curriculum could look like with digital literacies included has also been considered alongside ITE provision. This has led to my key research questions which are:

- 1. What do digital literacies practice look like in the classroom?
- 2. How are teachers defining digital literacies in their classroom?
- 3. What are their motivations for teaching digital literacies?

The methodology and methods I used to collect the data to answer these is discussed in the next chapter.

# Chapter 3 Methodology

#### 3.1 Introduction

In order to understand how and why teachers use digital literacies as part of their teaching, I needed to be able to, as Hamilton and Corbett-Whittier (2014:2) observe, "enhance [my] understanding of contexts, communities and individuals". Originally, I had planned to create case studies and therefore, observe teachers in school, scrutinise children's work and undertake photo elicitation interviews with teachers, however in March 2020 the COVID pandemic lockdowns began in the UK and face to face research was restricted along with access to schools. I therefore had to alter my plans and so this study involved the use of photo elicitation, interviews, scrutiny of medium-term plans and teachers' personal commentaries, a justification of which now follows.

In this chapter I will provide a clear rationale for the methodology and methods that I have chosen to use. I will firstly discuss how case studies have been defined and reflect on which form of case study was most appropriate to my study. Although case studies are used across a range of disciplines my focus will be those that have been used within educational research. The reasons for the choice of methods are outlined as is my positionality within the work and the ethical implications for it. The methods I have chosen provided a rich vein of data which is explored in the next 2 chapters. This chapter will end with a consideration of how I approached the analysis of data.

### 3.2 Defining Case Studies

Hamilton and Corbett-Whittier (2014:3) state that case study as a method of research increased in popularity in the late 1970s in reaction to the positivist model that was dominant at the time which relied more on quantitative data collection methods, which were considered to give more "valid and valuable insights into schools and classrooms". Authors such as Tooley (1997) who favour a quantitative approach, question the results obtained from qualitative methods as they consider that positivist approaches exclude the effects of personal values and provide a more neutral approach. Carr (2000) argues that although neutrality is desirable it is impossible to study educational research without some influence of the values of the researcher. Interpretivist approaches that favour case studies take an approach where subjectivity is accepted, and qualitative methods of data collection are preferred. The interpretivist approach, and case study in general, has grown in popularity and is

used more widely as it is considered to provide complex, rich data that gives an in-depth understanding of an aspect of practice. I have taken a qualitative approach as I wanted to understand the practices of teachers within their own contexts and why they include digital literacies within their practice.

Defining 'case study' is a complex task, as although Yazan (2015) for example believes it to be the most popular qualitative research method, no authors agree on a single, unified definition that can include all of the aspects that can be involved. Thomas (2012) does not view case studies as a method but a way of focusing on an area or concept in great depth. Stake (2005:443) views it "not a methodological choice but a choice of what is to be studied...By whatever methods we choose to study *the case*". Yin (2018) argues that researchers need to carefully consider what they mean by the term so that they can present their case study as a legitimate research method.

Simons (2009:21) defines a case study as:

"An in-depth exploration from multiple perspectives of the complexity and uniqueness of a particular project, policy, institution, programme or system in a real-life context. It is research-based, inclusive of different methods and is evidence led. The primary purpose is to generate an in-depth understanding of a specific topic...and inform professional practice".

Stake (1995) also considers a case study to allow an understanding of a complex phenomenon which allows researchers to understand the activities that occur within it. Merriam (1998), in comparison, considers it to be intense process that describes rounded description of a phenomenon such as a process or social unit. Thomas' (2012) definition resonates with this as he considers that a case study permits the researcher to see the phenomenon as a whole from many perspectives. He considers it to be "an analysis of persons, events, decision, periods, projects, policies, institutions, or other systems which are studied holistically by one or more methods....the case study illuminates and explicates" (Thomas, 2012:23).

Yin (2018:15), describes it as an "empirical method that investigates a contemporary phenomenon (the case) in depth and within its real-world context, especially when the boundaries between phenomenon and context may not be clearly evident". This definition resonates with my research questions as I am interested not only in teachers' digital literacy practices but also whether they are supported in their setting and the implications for wider practice.

These definitions support an argument to pursue case study as a means to explore the complexities of teachers' digital literacies practice in depth. In this study photo elicitation interviews and teachers' personal commentaries alongside, medium-term plans enabled me to understand their interests, experience, motivations and thus the evolution of their classroom practice.

# 3.3 The design of a case study

One of the reasons that case studies are considered to be complex, is the wide variation that can be seen in the design of them. How a case study is defined depends upon the epistemological and ontological perspective of the researcher (Sikes,2004). In any type of research, the choices made, in all areas of design, will be reflective of the value-judgements that the researcher makes. The choices are influenced by the researcher's identity, who they are and what their central beliefs are (Connolly, 1992, Clough and Nutbrown, 2008). A researcher's view of the social world, their ontological perspective, influences the methodologies that they favour. Those that view the world as a given entity which is independent and can be measured and accounted for will probably favour quantifiable data which some consider to be objective (Tooley, 1997, Goldacre, 2013). How I view the nature of knowledge, my epistemological beliefs, have influenced what I consider to be possible to understand and represent within my methodological choices. Those that see knowledge as real and objective consider it can be measured and quantified, whereas I consider it to be temporal and subjective and wanted to interview and understand the perspective of my participants within their particular contexts and circumstances (Sikes, 2004).

I wished to understand how my participants view and experience the world in which they work. This means that the data produced is more subjective and therefore a social constructivist approach has been taken as it is one that favours more subjective data methods. This allowed me to understand how my participants experience the constructed world that they live in (Sikes, 2004) or, at least, how they articulate these experiences. Rogoff (2004) argues that the development of an individual is influenced by cultural and social activities and practices. She considers that culture alone does not influence a person, it is a more symbiotic process in that how people live their lives influences cultural practices and in turn the culture that they live within helps to create their social and cultural practices. I drew on Rogoff's view that meaning is socially constructed and wanted to understand how the

cultural background of the teachers and the context in which they teach influences their digital literacies practice.

Within social science research there are two broad approaches which adopt very different methods in examining social reality. Those taking a positivist approach consider that there is "a single, independent reality that can be accessed by researchers adopting an objectivist approach to the acquisition of knowledge" (Greenbank, 2002: 792). Those taking this approach favour quantitative methods of data collection, which they consider to be more scientific. This type of research often involves experiments and large-scale surveys, those that favour it consider it to be a more scientific approach to data collection. This type of research is often favoured by governments when designing curricula, an example of this is the implementation of systematic, synthetic phonics within the English curriculum based on the quantitative approach taken by Johnson and Watson's (2005) study in Clackmannanshire, which despite being the subject of considerable critique is still the favoured method for teaching phonics in England

Contrastingly, those that adopt an interpretivist approach, which this research does, accepts subjectivity and favours qualitative methods. Observations and interviews are frequently used, and researchers are often quite closely involved in their research (Greenbank, 2002). Within this research I used qualitative methods and accept that there will be subjectivity within my findings. I used multiple data collection methods in order to gain rich insight into the practice of the teachers that are part of the study.

Sikes (2004:18) argues that a researcher's positionality is influenced strongly by their beliefs and values and that these are based upon a myriad of factors including "political allegiance, religious faith, and experiences that are consequent upon social class, ethnicity, gender, sexuality, historical and geographical location...". My approach to teaching and learning was established in Chapter 1, as was how I came to that position. The importance of understanding the participants' practice and what can be learnt from it is driven by my belief of the influence that teachers can have on the life of children.

# 3.4 Approaches to Case Study

In attempting to compare approaches to case studies Yazan, (2015) considers Yin (2002) Stake (1995) and Merriam (1998). She chose them as she considers them to be landmark authors in this field, despite the fact they all advocate a case study approach their definitions and epistemological stances do vary. Yazan (2015) considers that Yin approaches case study from a positivist stance, although he does not specifically state this within his work. Her justification for this is his constant emphasis on the importance of validity within his work. This can be evidenced in his recent work in which he identifies four 'tactics' that can be used to test the validity of the design of case studies (Yin, 2018:43):

Tests	Case Study Tactic	
Construct validity	Use multiple sources of evidence	
	Have key informants review draft case study reports	
Internal validity	Do pattern matching	
	Do explanation building	
	Address rival explanations	
	Use logic models	
External validity	Use theory in single cases	
	Use replication in multiple-case studies	
Reliability	Use case study protocol	
	Develop case study database	
	Maintain chain of evidence	

Figure 1 Yin (2018:43) Case Study Tactics for Four Design Tests

Yin (2018) suggests that researchers should use these tactics and tests to check for validity throughout all stages of their work. His focus on the demonstration of validity throughout the work would, as Yazan (2015) observed, give it a scientific approach. It is argued by Baxter and Jack (2008:545) that a constructivist approach is taken by both Yin (2002) and Stake (1994) as he contends that they believe that "truth is relative and that it is dependent on one's perspective". Yazan (2015) asserts that since Yin argues against distinctions being made between quantitative and qualitative research, this is evidence of a more scientific approach despite the fact that he does not explicitly express his stance.

Stake (1995:99), in contrast, advocates a more constructivist approach within a case study, and advises potential researchers to have a similar stance. He argues that most people that undertake qualitative research consider that "knowledge is constructed rather than discovered". Stake (1995) views those engaged in case studies as interpreters of the data they collect, Yazan (2015) argues researchers then need to report their interpretation of the constructed reality that they find within their research. Both Stake (1995) and Yin (2018) propose the use of multiple methods to collect data such as observations, interviews and document reviews which will allow the researcher multiple perspectives of the case.

Merriam (1998) argues that all methods of qualitative research are based on the philosophical assumption that individuals construct knowledge through their interactions with the social world they interact in. She also suggests using multiple methods to collect data including interviews and documentation, which I have done, as this allows a comprehensive insight into the case. To be able to fully examine why and how teachers engage with digital literacies teaching, I have taken a stance that is reminiscent of both Merriam (1998) and Stake (1995) and because I wanted to consider the case from multiple perspectives, I used photo elicitation, teachers' personal writing and the scrutiny of medium-term plans. The findings are constructed from the data collected through these research methods.

In Yin's (2018) approach he argues for a very detailed planning process when designing the case study. He suggests creating theoretical propositions against which data are then considered as they are collected: this should continue throughout the whole of the study. Contrastingly Merriam (1998) and Stake (1995) advocate a more flexible approach to case study research allowing for major changes after their initial design in order to enable the researcher to react to their findings as the research progresses. Stake (1995) considers that researchers need two to three pertinent research questions that will help to structure the methods that have been chosen such as interviews and observations. Merriam (1998), although advocating flexibility, suggested five steps within a case design, whereas they suggest completing the literature review first and then identifying the research problem I started with the research problem and then constructed the literature review. This then helped me to identify the type of participants that I would like to recruit.

In order to understand how and why primary teachers use digital literacy partly during a pandemic, this study, by necessity, took a more flexible approach, similar to Stake's (1995) description which

allowed me to make changes to the research design when I needed to and to react to data as I collect it. The title of this study is 'A multi-case study of primary school teachers' digital literacies teaching', and my key research questions are:

- 1. What do digital literacy practices look like in the classroom?
- 2. How are teachers defining digital literacies in their classroom?
- 3. What are their motivations for teaching digital literacies?

Having established my positionality within this research it is important to describe the type of case study that I undertook with justifications for my choices. As has been established, authors suggest numerous approaches when designing case study. Yin's (2003) depiction of a descriptive case study in which a phenomenon, in this case digital literacy practices, are examined in order to describe them enabled me to address my research questions. Stake (1995) describes an intrinsic study which is similar to Yin (2018), he states that this approach could be used to help researchers to better understand a particular case, at the same time acknowledging that the case will have its own peculiarities and ordinariness so will not be representative of other cases.

Day- Ashley (2017:115) describes a multiple case study as involving "the study of a small number of cases of a phenomenon, each of which is situated within its own specific context". She goes on to cite her own doctoral work which looked at private school outreach in the Indian context in which she chose a multi-case study as she wanted to see if her findings made sense beyond a specific case. A multi-case study allowed for common patterns to be traced and enabled an "exploration of variation" both of which are aims of this study. Using several data collection methods enabled me to understand each case in isolation and then look for any similarities between cases.

The definitions discussed above resonate with my research questions as I investigated both the individual case, the digital literacies teacher, their interests, motivations and practice, as well as the wider multi-case to see any similarities and differences between the individual cases. This aligns with what Stake (1995) describes as an instrumental case, which permits the researcher to understand a situation and where the case is studied in depth. Thomas (2011) considers that the use of a collective or multiple case study makes it more reminiscent of an instrumental approach rather than an intrinsic

one. By undertaking a multiple case study, I was able to look across the cases to understand the similarities and differences between each teacher and context (Baxter and Jack:2008).

# 3.4.1 Examples of educational case studies

Craft, a prominent education researcher, used case studies and multi-case studies in much of her research (Craft *et al.*, 2013; Craft and Chappell ,2016). This research influenced the pedagogy and practice around creativity in primary schools and beyond and demonstrates that qualitative studies are valuable in understanding practices in school. Craft was part of the Cambridge Review Trust exploring creativity in the classroom. Within Craft *et al.* (2013:4) Stake (1995) is cited when describing the multi-case study that they are writing about. The study examines how two schools included a creative pedagogy within their teaching, data was looked at individually and across cases. Craft *et al.* (2013) describe that they took an interpretive stance in which they were able to gather data which reflected the lived experiences of the teachers. Working as a group they were able to recognise multiple truths and interpretations and therefore gain many perspectives on the data that they collected.

In another study Craft and Chappell (2016) reviewed the nature of possibility thinking, again within two schools, the study is described as both qualitative and interpretive and they cite Yin (2009) to justify and describe the methods that they have chosen. Although they consider two separate cases, they stress they did not view it as a multi-case study. Craft and Chappell (2016) decided that gathering data in two schools overcame some of the limitations of a single case study whilst avoiding the complications of multiple cases. Within both schools multiple data collection methods were used including observations and interviews similar to Stake (1995) who suggests the use of multiple data collection methods. Warschauer (2008) undertook a larger multi-case study researching literacy practices involving laptops. The study involved ten schools, and as part of a team of researchers, he used multiple data collection methods: observations, interviews, surveys and document reviews to study each school in detail. This would, from Yin's (2018) perspective, strengthen the credibility and reliability of the data. Warchauser (2008) does not give details of why he chose the methods that he did, but he does place his study within the social cultural framework.

My study used multiple data collection methods so that it could, as Merriam (1998) suggests, enable a comprehensive insight into the case. Participant photos alongside interviews (photo elicitation), personal recounts written by participants and the scrutiny of medium-term plans. Each method will be considered below and a justification for its inclusion made.

#### 3.5 The use of interviews

Conversations allow us to get to know other people, we can find out their experiences, feelings and hopes for the future. Interviews are a common research method in the social sciences, they allow the researcher to find out about individual participants and their lived experiences. Kvale (2007:1) describes the research interview as "an inter-view where knowledge is constructed in the inter-action between the interviewer and the interviewee". He considers that there are many approaches to interviewing, in some examples the relationship between researcher and participant may not be an equal one, the interviewer may be in a position of power as they set the topic and ask the questions. In others there is a more equal balance, and the interviewer becomes part of the conversation giving opinions and asking for elaborations. When considering methodologies and methods I wanted to have a more equal balance in the conversation, although I avoided giving opinions so as not to influence the participants, I wanted them to elaborate on their answers. This research is a mix between a coconstruction of knowledge and a conversation with the participant, this is described by Gaudet and Robert (2018) as being polyphonic, made up of the voice of the interviewer and that of the participant, who are at the same level trying to construct meaning together. It is more of a social process and the aim is to not provoke changes within the participants' practice, but to better understand their world. After reflecting on the first interview, I felt that I had said too much so made sure in subsequent ones only to prompt if needed.

Gaudet and Robert (2018) note that developments in social media have opened up ways that interviews can be conducted. Indeed, the way in which the interview is conducted, either in person or through social media can affect the way in which rapport is built up between researcher and participant. They feel that for some sensitive topics phone interviews, where the participants do not need to be face to face, may allow for a richer form of data as the participants perceived a higher level of anonymity. They consider that the same intimacy effect has been found when using online interviews even for topics that are not sensitive. This gives researchers the ability to use both online and offline interviews and allows them to adapt to the needs and possibilities of the field work. This

is particularly pertinent to this study as data was collected during 'lockdown' in the middle of the COVID 19 pandemic and interviews were conducted online. Participants were interviewed in their homes, during half term and were away from potential distractions in school.

In order to find out about the teaching of digital literacies, it was important to design an interview method that allowed for elaboration, and which was flexible enough for me to explore issues that arose. When used in combination with participant photographs, narrative interviews were a good method to allow this, Kvale (2007) states that they allow interviewers to focus on the stories that participants tell. During the interview process stories may arise spontaneously or be prompted by the interviewer who can ask directly for stories of particular happenings. Kvale (2007) considers that through the interview the interviewer may use nods, silences and questions to elicit further information and therefore, in a sense is a co-producer of the narrative. In-depth interviews are similar in that the researcher is attempting to know what another person knows about a topic and what their experiences and thoughts are on it. They can allow for insightful data that will help a researcher to more fully understand the topic (Mears:2017).

As stated above this study used narrative interviews alongside participant photographs, this method of data collection has increased in popularity and the next section will deliberate upon the research that has used them as a combined method.

#### 3.6 Photo elicitation as a method

The prime data collection method for this study was photo elicitation. It has been established that the use of photographs can provide a powerful participant voice, giving greater control over the information that is gathered by researchers, as well as encouraging participants to become more involved in the research (Gibson *et al.*, 2013; Shannon-Baker and Edwards, 2018). Shannon-Baker and Edwards (2018) argue that complex and challenging questions need methods that are suited for such research and that there has been an increase in the use of visual methods as a result. They add, that although some concerns have been raised about the rigor and validity of such approaches there is a benefit for participants, methodological innovation and an expanding understanding of the subject being examined. Visual methods, in this case photographs, complemented the data as it allowed further opportunities for interrogation if I was unclear about a response.

Mclaughlin and Coleman-Fountain (2018:3) see the increased use of visual data and "other creative methods" to be the result of the call for young people to be more involved in the research process. They consider that the use of visual methods makes research participation more interesting to children and young people and may be a creative way to shift the power from the adult interviewer to the child participant. Although this study involves adults, their use of digital literacies within the classroom meant that much of their practice had been recorded on film. This was fortunate as teaching was disrupted and they could use photographs taken before the pandemic to exemplify their practice.

Mclaughlin and Coleman-Fountain (2018) argue that it is the task of the interviewer to fully explore the intentions of the photographer producing the photographs that they have. To do this they suggest photo elicitation. This has been described by Harper (2002:13) as "based on the simple idea of inserting a photograph into a research interview". He considers that by doing this the images evoke a more in-depth response by reaching deeper elements of a participant's consciousness, as a result interviews that use photo elicitation evoke a different type of information than would be found in an interview only approach. Nind et al. (2012:654) state that using photo elicitation allows the interviewer to prompt narratives and a "conscious reflection on previously taken for granted assumptions" and that the photographer can be prompted to "unpack their thinking and scaffold their own thought processes". Mannay (2010) sees photo elicitation as being advantageous in social research and points out that it is also known as 'photo-voice' as it allows participants to independently record their own images therefore give their interpretation of the research question. As an example, Nind et al. (2011) argue that by using digital technology to collect data they helped secondary school girls with behavioural, emotional and social difficulties to express themselves fully within their research and gave a voice to participants who are sometimes not heard. Rather than using digital images alone, Nind et al. (2011: 645) also used narrative interviews to help explain "the narrative behind the images".

In this study the use of photographs prompted the teachers to describe narratives about their practice, in addition to this the actual selection of photographs helped them to consider their practice and they used their narratives to exemplify this.

Shannon-Baker and Edwards (2018) advocate the use of research which uses multiple data collection methods within a single study. Although in the past little has been written about the use of visual images in a multiple method approach, it has become more popular in recent years (Dicks *et al.*, 2006). Shannon-Baker and Edwards (2018) considered several studies that used such methods and noted that visual methods were often combined with other data collection methods such as interviews or written reflections to look for multiple truths and reflect diverse experiences. Their research outlined both the benefits and the challenges of using visual data as part of a multiple methods approach. A benefit that I found that related to their work was being able to expand my understanding of teachers' experiences, the photographs helped them to communicate the variety of learning experiences that they offered the children. Their research was useful in guiding me to use photographs to support the teachers in their discussions with me, as school at that time was not reflective of their normal practice, due to the pandemic. A disadvantage that Shannon-Baker and Edwards (2018) outlined was the difficulties of obtaining fully informed consent when using visual methods, this is one of the reasons that no photographs of children are shown in this work. The research took place during the lockdown and many teachers were only working with children online.

To illustrate this type of research, Shannon-Baker and Edwards (2018) cite O'Connell (2013) who used multiple methods of data collection in a study of family food practices. Children took photographs that they could then discuss in semi-structured interviews, enabling them to fully share their experiences. Indeed, Shannon-Baker and Edwards (2018) consider that using participant photos aids the reflective nature of the discussion with the participant. As technology is becoming cheaper photograph elicitation is becoming more popular as a research method (Gibson *et al.*, 2013). Additionally, photoelicitation is a pertinent method to use when researching potentially sensitive topics or when working with more marginalised groups (Shannon-Baker and Edwards :2018; Gibson *et al.*:2013 ; McLaughlin and Coleman-Fountain: 2018).

For O' Connell (2013) this method was beneficial in that it allowed an examination of practices that were embedded in the social aspect of the home and therefore not accessible through text. The further advantages were that it helped the researcher to more fully understand the participants as well as making the study more alive for all involved. Dicks *et al.s* '(2006) work was similar to this and argued that the use of written methods alongside photographs allow a fuller picture of the data, as writing can be used to describe the sounds, smells and textures that are not apparent in an image.

O'Connell (2013) found that there were areas within the methods that caused challenges such as data management, storage and organisation which took more time that more traditional methods. Despite these difficulties I found that this method helped me to more fully understand the definitions and practice of the teachers who used photographs to describe their teaching. One participant, David, used photos that he had collected for the study to explain the development of digital literacies with colleagues and governors at school.

Gibson et al. (2013:12) used multiple methods, including photos and semi structured interviews to study the transition of young disabled men into adulthood. They found that these methods allowed them to "illuminate everyday practices without expecting participants to be able to explain these practices". The use of photographs within semi-structured interviews can help to can help to establish a rapport between the researcher and participant and provide a point of focus to the discussion. This aligned with O'Connell's (2013) findings that the participants, in this case young adults, were more engaged in the research and were very enthusiastic about taking photographs. Participants were given some guidance about what photographs to take emphasising that anything was welcome and that there are no right or wrong answers. When reflecting upon their study, Gibson et al. (2013) note that one challenge was that they had not anticipated the amount of time that the data would take to be generated. When working with young people, or in my case teachers, it was recognised that interviews need to be fitted in around a busy teaching life. Another potential challenge is that participants may want to try to help the researcher and therefore take photographs that they assume would be most valuable for the study. They may also alter methods by including videos or bringing along photographs that they already had. Gibson et al., (2013) conclude that if they were to conduct similar research again, they would ensure that there were opportunities for multiple interviews with the same participants and that such studies may benefit from increased flexibility, with participants having some choice over which data collection methods that they would prefer to use. They also recommend putting a limit on the number of photographs that a participant should take to help to focus the interview. I asked participants to choose ten photographs that they felt best exemplified their teaching of digital literacies, I limited it to ten as I felt that this would be enough to show practice and hoped that it would help the teachers to focus on what they wanted to explore. The pandemic meant that teachers in fact used many photos that they already had.

An example from within primary education is Moss' (2001) research in which she undertook a study that investigated reading practices at home. In the study she gave children aged 7-9 cameras and asked them to take photographs of people reading at home, all children were given a worksheet with prompts that was designed to help them see reading is more than books and magazines. There was also a meeting with all of the children and caregivers before the photographs were taken. Moss (2001) found unexpected challenges when it came to analysing the photographs that had been collected, discovering that some of the photographs were quite intrusive in nature and gave an insight into what would usually be a private domain, children's homes. She considered that this put children into a challenging situation of having to decide what to make public, and what not to; the children involved may not fully understand the consequence of the role or how to fulfil it thoughtfully. This could be true for adult participants as well and the possibility needs to be explained fully to them. In addition, Moss (2001) had pressure from the school to share the photographs with them which was a further ethical dilemma. I found that teachers selected their photos in a variety of ways, David used it as a chance to consider the development of digital literacies in the school, whereas Fran selected photos that showed different aspects of her practice.

McLaughlin and Coleman-Fountain (2018) consider that the discussion between researcher and participant will reduce the misinterpretation of what the adult is trying to show through the photographs. In their study they worked with young disabled people using photo-elicitation, interviews, as well as other data collection methods, to show how they wanted to represent themselves. Within the interviews all photographs were discussed and then a smaller number selected to use within the research. I ensured that the photographs were discussed by starting the interview with them, each teacher went through their photographs describing the practice. I noted down any questions that were prompted by the discussion which I asked at the end.

Several of the studies cited have noted that there can be problems in analysing the photographs that are included in the data collection. Among these are Shannon-Baker and Edwards (2018) who state that interpreting and analysing the data can be challenging and suggest that methods that are used to interpret more traditional data such as narrative analysis or quantifying procedures could be used. Within this study, although I had considered analysing the photographs, the limitations put upon the data collection and the teachers' practice at the time meant that the photographs selected supported the narratives but were not able to be analysed.

I consider that photo-elicitation as part of in-depth interviews allowed me to gain an understanding of why and how this small sample of teachers teach digital literacies Although as Shannon-Baker and Edwards (2018) have pointed out careful consideration needs to be given to the data analysis strategies used. The participants were all familiar with using digital technology and were comfortable taking, selecting and discussing their photographs, using more innovative methods can be a way of engaging younger people in research which most of my participants were (McLaughlin and Coleman-Fountain, 2018). Prosser and Schwartz (1998) consider that the use of photographs helps to show relationships, and allow a sense of location, and this did reveal a greater insight into the practices of the teachers as I was unable to undertake observations. It has been pointed out that such methods allow more power to participants as they independently record images, and this results in interviews not just being led by the researcher (Mannay, 2010; McLaughlin and Coleman-Fountain, 2018). This was an advantage when interviewing the teachers as I wanted them to fully explore the processes that they go through when planning for and teaching digital literacy. O'Connell (2013) feels that the use of such methods for data collection encourages participants, produces more reflective responses and brings the study alive. I was aware though, that what participants decide to show, and what they decide not to show will shape the interview and careful thought was given to the questions that I asked. However, by more fully involving participants within the interview misinterpretations should be reduced. I found that the use of photographs as part of the interview helped the teachers to describe what they taught in school, when considering their definitions of digital literacies, it was possible to reflect not only on their responses to the question but also on the photographs they had shared.

#### 3.7 The structure of the interview

As the key method used within this research was photo-elicitation, it was important within semidirected interviews to have a list of topics that need to be covered as this allowed connections between the cases (Gaudet and Robert; 2018). This meant that I used narrative interviews as part of photo elicitation to find further information that had not been discussed alongside the photographs. Gaudet and Robert (2018) stress the need for researchers to act as facilitators, demonstrating active listening which allows participants to think aloud and explore their own lived experiences. The photo-elicitation interviews for this study were undertaken in February 2021 when the UK was in lockdown and teachers were teaching key worker children in class as well as providing online teaching for the rest of the class. I asked teachers to provide photographs that best exemplified their practice in relation to digital literacies, however the context they were in meant that they had to rely on photos that they already had rather than undertaking the activity during the time period, as practice at that time did not reflect their normal practice. How they chose the photos differed and this is discussed at the start of each case study in Chapter 4. The photos did however provide interesting data and supported teachers in their narratives of their practice.

Each participant was interviewed using Microsoft Teams and the conversation was recorded on my iPhone. During the first interview I tried to make notes but found that detracted from really listening to what was said so for the following five I focussed on the conversation. Each interview started with the teacher going through the photographs that they had selected to best illustrate their practice. This was followed by some questions (see appendix 2) which were used to further explore participants' practice. Each recording was uploaded to Otter and Office 365 to provide a basic transcript. I then listened to the recordings whilst editing the transcripts to ensure that they were accurate. This was beneficial as it allowed me a second close scrutiny of the conversations. Examples of the transcript are found in Appendix 3.

#### 3.8 Personal reflection or recount

To fully understand the practice of each teacher in the study I asked participants to write a personal reflection or recount of an example of their teaching of digital literacies. I felt that this would give me a more complete picture of their practice as I was unable to observe in school. Four teachers were able to complete this and the data added to their narratives. Writing a personal reflection or recount allowed the participants to have a voice within the research and to convey their best practice. There are a number of studies within education that have used a similar method, Dix and Cawkwell (2011) undertook a multi-case study of action research looking at building student and teacher expertise in writing in middle and upper schools in New Zealand. It was a longitudinal study that employed a variety of methods which included reflective writing journals completed by the teachers as Dix and Cawkwell (2011: 47) considered it important "...to gather rich qualitative data. Teacher voices were thus valued, their challenges identified, and their professional decisions and changing practices affirmed and reflected on". Although this study is not considering changing practice, I do want to

understand teachers' professional choices and the challenges that they face, and these are found in the narratives of the teachers.

Similarly, Cremin *et al.* (2009), as part of their study into teachers as readers, and Conway (2012), considering pre-music preparation, used teachers' reflective journals to understand fully the journey that teachers had made on their way to becoming a reading teacher and their experiences as a student teacher. Along with Morgan (2010) who researched pre-service teachers' experiences in a writing course, reflective journals were used to gain a deeper understanding of teachers' perceptions of their experiences and practice. This is the reason that I have included them within this study, although I did not ask teachers to use reflective journals, I did want them to reflect upon their practice.

# 3.9 Participants

As the aim of this research was to investigate teachers' practice in the teaching of digital literacies the participants could not be randomly selected as they needed to be teachers that use digital literacies as part of everyday practice. To a certain extent they needed to self-select or be suggested by others. I initially asked colleagues and student teachers that I work with to suggest possible teachers. I also used social media, in particular Twitter, to find teachers who may be interested. Ideally, I wanted a mix of genders, ages and experience to help me to get a wider picture of how digital literacies are taught and I was fortunate to achieve this. Due to the circumstances at the time and the use of online interviews I was able to extend this to teachers outside of my local area so could incorporate two teachers suggested by my supervisor.

# 3.10 Ethical considerations

This section will consider the broad ethical approach that I took and will examine some aspects in more depth. The study has undergone a full ethical review as part of the University of Sheffield's ethics procedure (appendix 4). The research has been designed with reference to the British Educational Research Association (BERA, 2018) guidelines.

At the time this research was undertaken teachers were practising in conditions that they had never experienced before, they were under pressure and had more work than usual (Misirli, and Ergulec,

2021). It was very important that my research was well-defined and organised so that I did not waste participants' time (Brooks *et al.*, 2014). I had originally planned to use and publish the photographs that the teachers showed me to demonstrate the practice that they described. However due to the situation in schools at the time, it was challenging to gain consent from the children as many were not at school and teachers were teaching remotely and were far too busy. As a result, the photographs were just used to focus the teachers' discussions.

Sikes (2004:25) states that research involves people taking up their time and engaging in activities that they would not normally do, they provide researchers with "privileged knowledge about them". This can theoretically give the researcher influence over them. She questions that if the research is just to gain a qualification or to confirm a personal theory and there is no gain to others is it ethical to proceed? In the case of this research, although it is part of a doctoral study, the aim is to ascertain good practice so this can be shared with other teachers and student teachers to further improve their practice. Nutbrown (2010) agrees and states that researchers need to ensure that they protect their participants from harm and strive for ongoing negotiation, honesty, mutual trust and respect.

Sikes (2004) emphasises that researchers must consider the unintentional outcomes or consequences of the research that is undertaken, within this research I aimed to understand best practice so this should be a small risk. It has to be acknowledged that research is an activity that can have consequences for those involved and that "re-presenting lives carries a heavy ethical burden" (Sikes,2010:12). Arsel (2017) considers that even trying to understand and interpret someone else's lived experience is an act of power, and although my intentions within this research is for a joint construction of knowledge, it may be that two of the participants that I had taught several years ago, view me as being in a position of power.

As with all areas of research there are important ethical considerations to consider when interviewing. Kvale (2007:8) argues that "ethical issues permeate interview research" and that the information that comes from them is dependent upon the relationship between the interviewer and interviewee. Sikes (2010) has published widely, using life histories and narratives, and she considers that writing research is never a neutral task, as it is a social and political act that may have consequences for the participants who have engaged with it. She argues that when you write about people's lives it is an autobiographical/ biographical process, as the researchers' own lives, beliefs and values are

implicated. Furthermore, she believes it to be unethical to write about a person's life without making clear the viewpoint that it is being written from, a reflexivity and honesty is needed throughout the process. Denscombe (2021) and Yin (2018) outline the key ethical deliberations that researchers must consider when embarking on any research. As the researcher it is my responsibility to ensure that no harm is done, and that participants' rights are fully respected, including the right to withdraw from a project. There are consequentialist concerns about the potential for any effects that may occur as a result of being involved in the study. The virtue of the study must be reflected upon to see that it will advance the general good and make a positive contribution to the area studied.

It needs also to be recognised that in any interview, teachers are taking risks when they allow an outsider into their environment. It is impossible to predict what may happen in an interview, but participants were assured of confidentiality and the aims of the interview were clearly explained at the start. A Power Point was shared to explain the aims, questions and potential analysis (Appendix 5). Within the photo-elicitation/ interviews the conversation was a joint construction and narratives constructed from the transcripts were shared with participants to check if they were accurate. Clough and Nutbrown (2012) consider that when the researcher reaches the stage of interpretation ethical problems start to occur as they begin to make sense of the voices of others, a way to ameliorate this is to share the analysis with the participants.

Sikes (2004) states that research is a two-way process, acknowledging this, when undertaking the interviews, I recognised that participants would make their own interpretations and judgements about what is going on. They may not want any more involvement with a project once they have been interviewed and observed and researchers need to accept this. Once the work is complete, I would like to offer participants the opportunity for joint publications around their own case, if this is possible and they would welcome it.

It is important that all participants are given enough information about the potential study so that they are fully informed as to whether they wish to participate or not (Peterson, 2000). Yin (2018) stresses the need for potential participants to fully understand the processes and aims of the research. Warren (2001) warns that in some research, what the researcher views as the aims of the research and what the respondent understands as the aim can be different. It was important that the information I gave to the participants was clearly written and fully explained (Appendix 6).

it is important in any research that all involved are fully aware of what the aims of the project are. Information on the aims and requirements of the study was given to all participants, information was also given to Head Teachers. Consent was obtained from all participants and an example can be found in Appendix 7. Everyone involved was informed that they could withdraw at any time during the research process up to the start of the data analysis. Individual case studies were emailed to all participants to check that it was a true representation of what they had said. As Peterson (2000) argues it is important that all participants are guaranteed confidentiality, all participants and schools have pseudonyms allocated, the general location of the school is indicated, and care was taken so that schools and participants are as non-traceable as possible. Consent forms are stored securely and any computer-based data, including transcripts and photographs are password protected.

#### 3.11 Data Management

All data was anonymized, and pseudonyms were used for schools and participants. Electronic data files were stored on a password protected computer, anonymization in the form of pseudonyms were used from the transcription phase and I was the only person to have access to the data. I stored and carried out data analysis on a password protected computer. All electronic media and data, such as interview transcripts or analysis, were stored with password protection and encryption on all files. Audio recordings and photographs will be deleted 3 years after transcription. I recorded interviews with the participants, and they provided photographs of their practice. The interviews were transcribed and are kept in password protected files on my computer and portable hard drive. The data is backed up on my password protected iCloud and then will be deleted at the end of the study The password protected computer is stored and used in my home.

## 3.12 Approaches to analysis

It is important to consider the approach that is to be taken within the analysis as this will further establish the theoretical approach that is taken to the research as a whole. This study takes an abductive approach as it includes both an inductive method, whereby I make general conclusions from the narratives of the teachers as well as having aspects of a deductive approach (Warwick University, warwick.ac.uk accessed 27.2.22), when I compare the teachers' responses against Burnett *et al.*'s (2014) Charter for 21<sup>st</sup> Century Literacy, discussed previously in section 2.9.

I had intended to look for themes within each case and then see if there were any themes that appeared across cases. However, as I listened to the teachers talk about their practice and read their personal recounts, I kept hearing it as a narrative in my mind. Whilst this could be because I have been an English specialist for 30 years, and am used to telling and writing stories, it is also because this work is considered from a social constructivist point of view, and I am wanting to understand how the teachers view and experience the world in which they work. I therefore decided to create a narrative from each case and then a thematic analysis across all cases as a whole.

#### 3.12.1 Narrative analysis

As discussed above I felt that a narrative approach was the most appropriate for the data that I collected as the teachers were describing their classroom practice, for example David who tells the story of the development of digital literacies in his school. Goodson (2006:9) argues that art and literature are often ahead of other cultural forms in redefining how we define our personal narratives, citing the recent work of Bruce Springsteen, he notes that narratives, including lyrics and filmmaking, are moving towards "highly- individualised or special interest narratives". He considers that the use of personal narratives comes with both possibilities and problems for the social scientist and contends that it is important to analyse narratives within the wider context of the participants' lived experiences. The importance of considering context is also emphasised by Paschen and Ison (2014) who consider that this is one of the strengths of the approach. Knibb (2013) notes that narrative identity assumes that there is a narrative logic which underpins the way that people live and make meaning out of their identity. People's stories are often told to help them make sense of their lives within the world. Reissman (2011:2), when investigating the reasons for divorce, found that thematic analysis was challenging as "participants were resisting our efforts to fragment their experiences into thematic (decodable) categories in our attempts to make meanings". She reflected that storytelling is what researchers do when they describe their methods and what participants do when they convey their experiences to us. This resonates with what I found when listening to the recordings. Within the transcripts in this study, stories of what happened in school naturally occurred within the conversations as teachers described events in their classrooms. For instance, Mark described in detail about a school visit and the work that the class produced as a result of it, and Fran told the story of working in the community with her class supporting older people with digital literacies.

An example of narrative analysis within education is Goodson (2006) who researched teachers' lives; he states that in such studies it is important to reflect the "particular historical moment where the teachers work is constructed in a particular way" (2006:19). In addition, Knibb (2013) considers that narratives help researchers to understand how participants understand themselves and how they make sense of their lives. Within each analysis I contextualised the case of each teacher. It was important for me to remember when analysing narratives that they are scripted by the people telling them and that stories are created within the social process of the interview (Goodson, 2006; Knibb, 2013). Within my interviews I aimed for the discussion of the photographs to lead the interviews, which they did.

Narratives can be defined in many ways, Polkinghorne (1988: 13, cited in McCance, 2001) has the most inclusive meaning "referring to any spoken or written text", he goes on to further describe narratives as "the kind of organizational scheme expressed in story form". Reissman (1993:352) considers that definitions by researchers vary and can either be too broad or very restrictive, she feels that most researchers view narratives as "discrete units, with clear beginnings and endings, as detachable from the surrounding discourse rather than as situated events". The narratives in this study, with the exception of David, do not have a linear form, they are constructed from the teachers' practice over a period of time. I considered that narratives are appropriate for this study as I wanted to make links between the exceptional and the ordinary (McCance et al., 2001), understanding why and how my participants embed digital literacies in their practice. Reissman (1993) suggests that narratives often occur when there is a difference between the ideal world and the real world, in this case the rich digital literacies practice of the teachers compared to what I have observed in school. Bruner (1990:49) states that "when you encounter an exception to the ordinary and ask somebody what is happening, the person you ask will virtually always tell a story that contains a reason". This study aimed to understand why teachers use digital literacies as part of everyday practice whilst many others do not. West (2013:16) notes that "Narrative methods ...allow for a caring, respectful and ethically mindful way of sharing stories and meanings" which is important when sharing the thoughts of participants.

McCance *et al.* (2001) consider many approaches to narrative including Denzin's (1989) who observes that narratives should have a beginning, middle and an end, be in the past tense, have a linear format and be written in sequence, there should also be a plot that makes sense to the reader. They note that a problem with this is that much data would be lost as it would ignore the general discussion that

is part of the interview, for this reason they began by completing a content analysis of the transcripts before starting the narrative. The analysis for my study has followed a similar format and themes were looked for within and across all six interviews.

McCance *et al.* (2001) believe that creating narratives to better understand participants is becoming an increasingly valid way of understanding, in their case patients, experience. Although this research was conducted over twenty years ago many of the points around narrative analysis are still pertinent. They consider that a semi-structured interview is the best way to elicit a full understanding of what participants are saying. Goodson (2006) concurs as he states that whilst attempting to allow participants to tell their story, with as little intervention as possible, interviewers need to become good listeners. I found that as I progressed through the interviews my interventions became fewer. Initially I was concerned that I needed to collect enough data, but by Interview three I made sure that I intervened as little as possible. I found that Interviews allowed significant questions to be asked but also allowed me to ask for more information dependent upon responses. This view reflects that of Reissman (1993) who argues that open questions are most likely to allow for storied to be produced, she considers that we are surrounded by narratives in everyday life.

Polkinghorne (1988: cited in McCance, 2001:353) describes "narrative analysis as the use of stories to describe human experience and action". Whilst the literature varies on the approaches that can be taken when considering narrative analysis, my approach focussed on the conversation that took place with the teachers in the study. Paschen and Ison (2014:1084) argue that a narrative approach would allow a "diversity of voices and knowledge to be heard." Their study was based on a socially constructivist approach and considered whether research on climate change would benefit from studies that included a narrative analysis.

Polkingholme (1995) describes a paradigmatic analysis that considers the stories collected as transcripts which then moves to a thematic approach that considers elements that can be seen across different settings. He also identifies a second approach whereby individual experiences are linked by plot, which helps to create a context for the analysis. This work has elements of both approaches within the analysis, it is similar to Knibb (2013:29) who undertook "A story- centred, thematic approach" which allowed her to "search for theoretical argument within the texts" and "move beyond a simplistic interpretation of meaning towards a more nuanced and alternative reading". This also

enabled her to look for key themes across different stories. She suggests reading through transcripts for multi-layered meanings and emphasises the need to return several times to the data, something which I undertook in this study. Once I had the transcripts in a manageable form, which involved listening to recordings and checking for accuracy, I read through the transcripts several times. As I was reading the teachers' stories of classroom practice were apparent. I then identified initial themes within each transcript which I thought answered my research questions. I shaped the narratives around these themes, as the transcripts were quite long, I used a mixture of the teachers' own words and my description of what they said.

Reissman (2011) considers that analysing narratives is a complex interpretive task as researchers need to decide which parts of transcripts to include, and where the beginning and end of the narratives occur. She states that those working from a social constructivist approach, as this work is, are less focussed on verification of the facts but more on the meanings of events the participants discuss and how these are located in both culture and history. Reissman (2011:13) describes them as "meaningmaking units of discourse". Paschen and Ison (2014) have a similar view and consider that narrative analysis provides insights into the focus of a study as well as considering the social process of how meaning is negotiated and created within the research process. They remind people engaged in narrative analysis to be mindful, that just by being there they are influencing the stories being told and emphasise that by listening carefully researchers can discover their participants' priorities and include them within the narrative. Reissman (2012) advises that transcripts need to be read closely and analysed by the researcher who acts as an interpreter constructing the meaning of the narrative. She emphasises the need for an analytic stance that goes beyond the story to make sense of the meanings within the transcript, and I have adopted this position in this study. Having read the transcripts several times, as described above, I looked for initial themes within the individual cases and then themes across the cases which are presented in Chapter 5.

## 3.12.2 Thematic analysis

In contrast to narrative analysis, thematic analysis is focussed on what is said, as opposed to how it is said and to whom it is said (Knibb, 2013). Within this chapter I have considered the use of case studies and both Stake (1995, 2005) and Yin (2018) advocate looking for themes within the data. Braun and Clarke (2006:78) state that this approach is widely used, though poorly demarcated, they acknowledge that qualitative analysis is a complex process and argue that "thematic analysis should be a

foundational method for such analysis". They consider it as a flexible tool that can be used within different methods and their article suggests guidelines for undertaking such analysis. Although in Braun and Clarke's (2006) original article they do not rule out thematic analysis alongside other methods, their later work does not favour it (Braun and Clarke, 2020). Although this analysis does use both a narrative and thematic approach, which Braun and Clarke (2020) may not agree with, I feel that much can be taken from their guide to thematic analysis. Like both Stake (1995) and Yin (2018), Braun and Clarke (2006) advocate close scrutiny of the data to look for patterns and any areas of interest, which I did initially when comparing transcripts with recordings and then in subsequent readings of the transcripts alongside scrutiny of the photos of practice and children's work. I then coded the data for each case looking for interesting/dominant features and themes, this involved several readings of the transcripts (Braun and Clarke, 2006). Whilst writing Chapter 4, where I present the narratives, I again looked for themes within the teachers' words, this can be seen as an inductive approach as I make general conclusions from the teachers' narratives.

Braun and Clarke (2006) outline some key points to follow to ensure that a good thematic analysis is undertaken, they emphasise the importance of actually analysing the data and the need to use extracts of data to illustrate and support analysis. Within the narratives presented in Chapter 4 and my analysis in Chapter 5 I have used extracts of data to illustrate my points. Although they state that interview questions should not be used as themes, I found that some codes and themes were similar to the questions because of the nature of the interview and the area I was investigating. There is a need to ensure that the themes work and that there is not too much overlap between them, each theme needs to have enough examples from the data to make the analysis convincing (Braun and Clarke, 2006). It is important that the data provided does support the analysis rather than contradicting the claim. Braun and Clarke (2006) state that a strong analysis should consider both alternative readings of the data as well as contradictions. The themes that emerged are fully discussed in Chapter 5.

3.12.3 Presentation and analysis against the Burnett et al. (2014) Charter for 21st Century Literacy and The guidelines for teaching and learning with digital literacy (Dowdall and Burnett, 2021) In order to consider further whether the data collected resonated with current research on classroom practice in digital literacies I designed 2 grids. The first was based upon the work of Burnett *et al.* (2014) and the second on Dowdall and Burnett's *et al.s'* (2021) principles. These were used to both

present some of the data from the teachers and to consider whether their practice was similar to what had been suggested for a 21<sup>st</sup> century curriculum.

### 3.13 The effects of the pandemic

Whilst the data collected provided new insights into the classroom practice of six teachers of digital literacy, as well as an understanding of the effects of the pandemic on their teaching and children's work, it has to be acknowledged that this was not the original plan. As discussed above, before the pandemic I had written my literature review and methodology. My ethics allowed for either face to face interviews or online ones in anticipation of what was to come. As a result of lockdown, I had to change my methods, which I have described above. I kept up to date with new literature on the pandemic and added this to Chapter 2.

#### 3.14 Covid Impact Statement

Personally, as a result of the lockdowns my workload changed, and I lost valuable time that I would have used for this study. I am the ITE Programme Leader at a large university and for a year had to modify provision to change to blended learning for both Undergraduate and Postgraduate programmes. I line manage half of the teaching team and was supporting both anxious staff and students. This meant that weekends for at least 6 months was spent working rather than studying and impacted on my doctoral research, analysis and the writing up process.

### 3.13 Conclusion

The methods outlined above allowed me to gather rich data that exemplified the practice that the teachers described. The data collected provided new insights into the practices of teachers who include digital literacies as part of their everyday practice, as well as an understanding of some of the effects of the pandemic on pedagogy and children's work. The next chapter presents the teachers' narratives, partly in their own words and partly my description of what they said and the photos that they presented. The narratives are presented individually in Chapter 4 and then themes analysed across cases in Chapter 5.

# Chapter 4 Narratives of teacher digital literacies

## 4.1 Introduction

In this chapter I present each of the teachers' cases starting with a biographical introduction, provided by them, followed by a detailed account of the photo-elicitation activity. I have created these narratives based on their interviews; throughout this chapter I present what they say about their own practice. I am using pseudonyms to provide anonymity, and the narratives have been shared with each of the teachers to ensure that it is an agreed representation of what they have said and written. In my account of each interview, I select extracts from the transcriptions to provide each teacher's narrative of their digital literacies teaching. As described in Chapter 3 I chose these particular themes by closely scrutinising the transcripts and teachers' writing and coding them to look for which best exemplified their practice. The case studies are presented in order of the year groups taught, starting with Year One.

After the introduction to the teacher each case begins with an examination of their definitions of digital literacies, which I have briefly linked to definitions found in Chapter 2. How they plan their teaching within the current curriculum and keep up to date with new ideas is considered as well as their motivations for teaching digital literacies. Using the extracts from the transcripts I present the teachers' practice as they describe it. The case study ends with a grid presenting the narratives, teachers' writing and planning against Burnett *et al.'s* (2016) Charter for 21<sup>st</sup> Century Literacy Education. Chapter 5 analyses each case against existing definitions and pedagogic principles explained in Chapter 2.

# 4.2 Case Study 1 Alex "Never give up, don't worry if things don't work, they will eventually"

Alex has been teaching for 12 years, he is Deputy Head Teacher of a semi-rural one-form entry school. He described the school as being in quite an affluent area with most children having digital devices at home. He is the lead teacher for computing and has a Year 1 class, this is the only school that he has taught in since completing his PGCE. He had very little training in digital literacies during the PGCE and does not play computer games or engage with social media, although he had worked extensively using Microsoft Excel before training. He was recommended to me by one of the students who graduated

from the ITE Programme that I lead, who described him as someone who used digital literacies throughout their practice.

Alex's motivation for teaching digital literacies is very much related to his definition of it, having a strong focus on the use of technology. Although, as can be seen later in this chapter in the presentation of data in the Burnett *et al.* (2014) grid, his practice does go beyond this as, for example, he encourages children to use film to communicate ideas and to respond to texts in their own ways. Alex says:

"So to me, digital literacy is teaching children the skills that they need in life to use in technology going forward. So I do lots of different things, but it's not about just teaching them software. I think that's very important. Because there is no way the software I teach them now is going to be what they use in the work environment. So, it's just teaching them skills really about how we do things, how we put things together."

Alex approached the photo-elicitation interview by pre-selecting photos and videos that represented the variety of activities that he considered best illustrated his digital literacies teaching practice.

When planning for both computing throughout the school and his own class, he has a lot of freedom, as he says "Oh, an awful lot of freedom. As long as the lessons are as high quality as they can be, and the children are learning. It is a very free school, you can kind of teach things and in whichever way you want, there is no rigid pattern". He thinks that this is 'fantastic', but it makes extra work as he has to work hard planning the lessons. Staff are allowed to try different things in their practice, which, he suggests, is not always the case as he feels that some schools are quite prescriptive with the curriculum being narrowed due to focus of attainment in literacy and maths (Gruszczynska et al., 2013). This can be seen as Alex making his own curriculum which resonates with the work of Priestley et al. (2021), who state that teachers will find ways around working within a prescriptive curriculum. Alex uses his subject knowledge and agency to design a curriculum that goes beyond the statutory requirements (De Almeda and Vlana, 2022). His Year 1 children come to him able to use tablets and phones but about half, he says, are unable to use keyboards and computer mice so he feels that it is important for him to teach them these skills. He attempts to integrate digital literacies in all of his practice.

When asked where he gets ideas from, he describes *Mr. P ICT online* (https://www.mrpict.com/), which is a website and blog which supports and encourages teachers to use technology in the classroom. He says he has also picked up ideas from Teaching Assistants and other staff, and that he is lucky to work at a school where you can try different things "so if someone comes with an idea, we just go with it and see if it works and nine times out of ten it doesn't in truth, but you know it does one in ten".

For Alex motivating children to be engaged in their learning is one of the key reasons that he uses digital literacies within his practice, he considers that "using technology in Year One is amazing. It just switches them on. And it comes back to that audience and purpose." He described how as a teacher he sometimes gets "a bit fidgety" and he knows that the lessons where he uses digital literacies the children always enjoy it more. He mentions the leavers' assembly where children talk about those lessons that were special to them. He says "And I suppose it's that I just want to create memorable lessons that that are very easy to put together as well, because it's not, it's not like this stuff takes a long time".

Throughout the conversation the theme of motivating and engaging children is apparent but for Alex it is more than that. He considers digital literacies to be important not only because he believes it produces high quality lessons but also because:

"... at the end of the day, these kind of skills to children, they're not going to be anything special, that's the way life is going. These children are going to be using technology to do wonderful things, all of their lives. So we have to teach it... It's not like, there's only one thing that connects the internet anymore, or anything like that. So it's just the world we live in is, we have to teach it is very important. And most of them are probably going to work that uses digital literacies in some capacity. So, it helps me as a teacher, an awful lot, but it's going to help them a lot more".

Throughout the interview Alex described some of his practice in digital literacies, illustrated with photos and films that children have made. In most of the examples described, there are elements of collaboration between children. This is illustrated well in his description of a project that he undertakes each year with Year Six where the children work together to create a website for a local business and have to produce and write all the content. This year, because of the pandemic, the children could not visit to take photos, so Alex provided these after the children had told him what they wanted. Before starting to create the website, he looked at examples with the children, focusing on their features and design. They then put the website together, ensuring that the work was accurate and would attract customers. His enthusiasm for the project is apparent as he says "so far, we've got - the local pet shop who have got one of our websites and the local sandwich bar ... but that is such a good project. And the children absolutely love it. It's hard to do, from a teacher point of view - but having that many ideas and the writing that comes out of it is really strong". In this example the emphasis is on writing real-world texts which will provide the children with a wider audience for their work, the children work collaboratively and then Alex works with them to bring the website together. As Priestley et al. (2021) describes, Alex is designing a micro curriculum, working individually to the national curriculum to provide meaningful learning experiences for his class. customise Examples of the children's work are a sandwich bar and an animal and pet supply company.

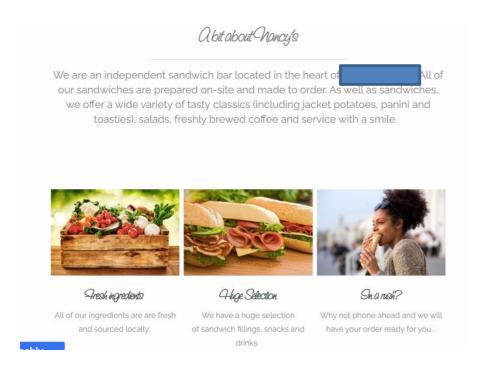


Figure 1. Screenshot of Nancy's Sandwich Bar website designed by the children

HOME DOGS CATS SMALL ANIMALS ABOUT US FURTHER INFORMATION

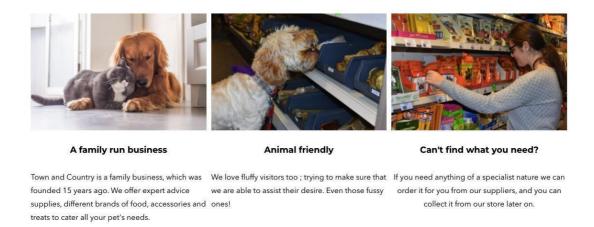


Figure 2 Screenshot of Town and Country Animal and Pet Supplies

When teaching his own class Alex gave examples of digital literacies practice that not only engaged learners but allowed children who do not find reading and writing easy, to show a deeper understanding of narrative than they can in written form. This interview was carried out in February 2021 when we were in a national lockdown, so some examples are taken from this time. Another photo that Alex used was a video that a child made during their home learning in lockdown. The children had been asked to create their own story based on The Naughty Bus (Jan Oke, 2005), they used Adobe Spark (www.adobe.com/express) combining photos with small amounts of text or audio to create their work. Alex described the benefits of this; "doing this enhanced the learning that took place in a variety of ways: it led to enhanced levels of imaginative ideas as children had to physically create the scene before writing about them. It led to an increased level of structure as the story flowed chronologically before concluding. It also led to higher level of engagement as different learning was catered for" (Alex's own writing about his teaching). The example shared was from a child who was struggling to write so she made a video after hearing the Naughty Bus story. As Alex said:

"She was really struggling to write. And so she made a video. And I just thought it was such a great way of showing me what her literacy skills are. Because yes, she struggles to spell, and she struggles to form letters. But she, she was able to come up with this original story. And she was able to use time connectives, she was able to use adjectives. It didn't support her writing,

but it certainly supported her English skills as a whole. And, and I was really, really happy with the way she did that. But sometimes I sit and I look at her book at the end of the lesson, and you think, 'Oh, she hasn't learned anything'. But clearly from these videos, she's sending me from home, she has, she's learnt an awful lot. And I think that's a brilliant thing".

A similar example is when a child who finds writing challenging drew a story map and videoed the map whilst he told the story, which was in far more detail than he would have been able to write independently and as Alex said "by the end of the year, if he's able to write five words, we will be absolutely chuffed. But he can tell you a story. He can, he can really use like, emotive language and he can use adjectives." Within this Alex is suggesting that the use of digital film production has allowed the children to demonstrate their understanding of story without having to write. Although Alex's initial definition of digital literacies was focussed on skills, his description of his practice demonstrates that he encourages his class to produce dynamic multimodal texts which engage his class.

This has been echoed by one of Alex's colleagues who when they knew he was talking to me wanted him to share some writing by a Year Six child who had used Adobe Spark (www.adobe.com/express/,) to make a web page on World War Two. They felt that the writing was of a far better standard than they would usually demonstrate and she believed that the child was far more inspired than if they had just used pen and paper to write an account.

Film is also used by Alex himself to engage the children, the school use Mantle of the Expert (www.mantleoftheexpert.com/), which although he said he is not a fan of, he works with it using digital literacies to enhance the experience. He makes films of himself in character such as a professor on Dinosaur Island and either sends or shows the clips to the children. An element of playfulness can be seen in Alex's teaching, and he wants the children to enjoy their learning. This, in his words, gets them switched on a lot more, particularly the boys. Children throughout the school make films and Alex would really like a green screen area although he recognises that there are apps now that do not need greenscreen. Although Alex's perspective of digital literacies, described above, highlights technology use when describing specific literacy lessons, it is clear that he is also drawing on notions of design suggested by Kress (2015) and playfulness which is an element of the guidelines outlined by Dowdall and Burnett (2021). As discussed in Chapter 2, film is not part of the national curriculum

(DfE,2013), but Alex interprets the policy (Ball *et al.* 2012) and, as Trinter and Hughes (2021) describe, creates better learning experiences for his class, thereby acting as a curriculum maker.

Film is also used to help children to start writing, Alex will often uses Adobe Spark (www.adobe.com/express,) to create a short film of a story, he finds, as he said, the children are used to this medium and it helps them to embed the story more quickly. He uses the images provided by Adobe Spark to build a story quickly. The children can then build their story and watch it as many times as is needed when they are writing it.

Throughout lockdown children were encouraged to make films at home. He and the Head Teacher, who has a daughter in Reception at the school, realised that the children were being asked to do a bit of writing for each subject and that parents who were working and home schooling found this challenging so "that just got us thinking that they're all using iPads and video enabled cameras. So all we did was send home a very, very quick tutorial of how to use a piece of software, or an app. And instantly we're getting videos back and higher levels of engagement than then we usually would have. Now again, it's not them writing. But they're still doing some work". Within this reflection Alex seems to be concerned that making films is not as important as paper-based forms of writing, this conflict will be reflected upon in Chapter 5.

Alex mentioned that using film to both inspire and assess work coupled with children making films at home has made stronger links between home and school during the pandemic. He feels that the use of Seesaw (https://web.seesaw.me/about), an app used to share children's work before and during the pandemic has also enhanced links between home and school. He can use this software to record his feedback to children, which can also be seen by parents. It is especially beneficial in Year One, as he points out that many children cannot read the comments that are written in books. He records feedback and at the start of each lesson children have an iPad to listen to feedback on their work which makes the feedback process far more inclusive.

Another positive development Alex identified from the school being locked down is the use of eBooks for children's home reading. He says that it has been a "game changer" as prior to this they had to change books once a week and quarantine them and the school only had four copies of each book.

During the 2020 pandemic resources used by children and staff had to be put aside for three days before another person touched them. The use of eBooks has meant that as many children as needed can be reading the same book and this is now going to be replicated throughout the school.

When asked about other staff in the school using digital literacies Alex mentioned an NQT who he thought was brilliant, he thinks because she is from a different generation "She picks up stuff in a way I never could. And she loves using it to help teach". He considered that lockdown has helped "raise the bar" in terms of teachers developing skills in technology as "everyone is at home producing videos on YouTube and we've spoken to everyone about using Adobe Video, so I think when they come back, we will have a staff group with a stronger skill set than before". Alex plans the computing scheme of work and provides staff development to support them with it.

Alex feels that the lockdowns forced him to try a bit harder, especially during the second one as "children and parents were struggling so much". Because the school had been using Seesaw (https://web.seesaw.me/about), and film in the first lockdown they were able to carry on without missing a lesson the next time it was imposed. He feels that because far fewer parents were furloughed a lot of children were working on their own, so they were:

"... just floundering and they're finding it really hard, and I've got parents of children who, to me they'd be like a bioindicator if that child is struggling, they are all struggling and I've had them contact me so much, so it's made me think about trying to make it more entertaining it's almost like we've changed how we use computing so we're using it more for videos and for input. And less for what we're getting the children to do. We just realizing now that the children can be doing videos, the children can be making websites that children can be doing all sorts of wonderful things, and it's just kind of taken us this long to do it".

The grid below has been used to present the data from the photo elicitation interview with Alex and the medium-term computing plan for the school (blue text). My aim is to compare his, and his school's, practice with Burnett *et al.'s*, (2014) suggestion for a Charter for 21<sup>st</sup> Century Literacy Education and the principles that it is based upon. It can be seen that the majority of the principles are covered within the school plan and Alex's teaching. The opportunity for exploring what texts mean to them does not

seem to be embedded in the plans and I could only identify one example from the transcript. It could be that this is part of classroom practice that could be observed in non-pandemic times. Working collaboratively is a key aspect of the medium-term plan.

	Criteria	Evidence	
1	Are the social and cultural resources	Children who can use film are offered the opportunity to do so	
	that children bring to the classroom	children have the choice of how they can present their work and can	
	recognised and celebrated?	use platforms and methods that they would use at home.	
Is there an opportunity for children to diversify the communicative practices that they participate in?	· · · · · · · · · · · · · · · · · · ·	Discusses teaching children to use film so that they can communicate	
	stories and ideas.		
	Year 1, Use different features of a video camera. Use a video camera		
	to capture moving images.		
		Year 2 To organise ideas for a presentation. To create simple	
		presentation with text. To add and format an image. To reorder slides	
	<ul> <li>and present a presentation.</li> <li>Year 3 - Gain skill in shooting live videos, framing shots, holding the</li> </ul>		
		camera steady and reviewing. Edit video, including adding narration	
		and editing clips. Understanding the qualities of deductive video,	
		such as the importance of narrative consistency, perspective and	
		scene length.	
		<ul> <li>Year 6 Designing and making a webpage.</li> </ul>	
3	Do children have the opportunity to	Year 6 websites.	
select, critique and use different mo	select, critique and use different modes	Much of curriculum plan for Year 6 centres around this.	
	and media in creative ways for various	Children choosing to make films rather than write.	
	purposes?	Year 1 plan Use sound recording equipment to record sounds.	
		Year 2- To develop research skills through searching for information	
		on the internet. To improve note-taking skills through the use of mind	
		mapping.	
4	Do children have the opportunity to play	Many examples of work where children have autonomy, for example	
	or improvise within their own projects?	a child making a film based on Naughty Bus  Child taking pictures in own house to show understanding of book	
		Child taking pictures in own house to show understanding of book Kate goes to London.	
		<ul> <li>Year 4 Develop an awareness of how their composition can enhance</li> </ul>	
		work in other media. Understandings that websites are developed	
		using a variety of different languages.	
		Year 5 Plan a record a radio ad.	
	Do children have the opportunity to	When in class work cooperatively together in lockdown some have	
	work collaboratively? Is there flexibility	worked with siblings.	
	within this?	Work in class to make recordings of stories.	
		Children in year 6 making a website.	
		Computing curriculum:	
		Year 1 Develop collaboration skills. Discuss their work and think	
		about how it could be improved.	
		Year 3 Work collaboratively with a remote partner. Experience video	
		conferencing.	
		Year 4 Producing a wiki Understanding the conventions for collaborative online work. Be aware of their responsibilities when	
		collaborative online work. Be aware of their responsibilities when editing other people's work. Become familiar with Wikipedia,	
		including potential problems associated with its use. Develop	
		collaborative skills.	
		<ul> <li>Year 5 Plan a game using a storyboard.</li> </ul>	
<u> </u>		- Tear of harra garrie doing a storyboard.	

6	Do children have the opportunity to explore what texts mean to them?	•	Children respond to texts read in class example of a child reading Naughty Bus and then making her own film about a naughty toy.
7	Is there an opportunity for children to explore how they position themselves, and how they are positioned by others, on and off line?	•	Year 1 Finding out what it means to be a good citizen, Year 2 Creating strong messages against ebullying, Year 3 Understanding the digital trails we leave behind, who do we really know online? How to stay safe when communicating online. Year 4 Understanding that online content lasts forever, Understanding and respecting digital rights and responsibilities. Virtual friendships vs real friendships; who can we trust? Year 5 Understanding the impact of online behaviour. Developing strategies to protect our future selves. Year 6 Respecting the personal information and privacy of others. Using our skills to resolve unfamiliar situations.
8	Is there an opportunity to engage critically with texts?	•	Year 6 Looking at websites. Year 3 Assessing the trustworthiness of websites Year 5 Understanding how game developers make money. Creating and delivering advice on safe online gaming.
9	Is there an opportunity to experiment with digital literacies in a supportive environment?	•	Working with different apps and programmes.  Talks about risk taking and things not going well and still trying.  Children having the choice to use film, examples of children choosing and work that they share.  Children can choose how they want to present work.
10	Is there an opportunity to engage with new technological practices?	•	Year 1 using a computer – link to skills needed.  Demonstrated to Year R how to make films so that they could use that instead of writing.  Year 6 making websites. Use of Adobe Spark  Use of green screen to make films.  Year 1 plan - Understand how a talking book differs from a paper-based book.  Year 2 plan - Take, edit and enhance photographs.

# 4.3 Case Study 2 David "It started with a digital camera"

David is in his mid-30s and has been a teacher for 9 years, he is currently teaching a Year 1 class 3 days a week, and has also taught Nursery, Reception and Year 2. The school is in a city in northern England and has 2 classes in each year, he described the school as being in the middle of an old council estate but quite near a university, with a high percentage of children who have English as an additional Language, many of whom come to the area for a short time and then move away again. The teaching staff is evenly mixed in terms of gender which, as he says, is quite unusual. David was recommended to by a colleague who I worked with on the EdD.

When asked for a definition of digital literacies David says, "just being aware of digital tools and having a way of being able to use them to create something, I think that's the that's the key". Throughout the discussion with David, and within the examples that he discusses, it can be seen that his perspective on digital literacies is strongly orientated to film. His work is focussed on the creative aspect of digital literacies which reflects the work of Burnett et al., (2014:162) who argue that children need to "know how to "select, critique, and use different modes and media and use them creatively, persuasively and for different purposes".

At school David took a GCSE in ICT but hated it because it was "it was all about hole punch computer things, wasn't what I was interested in, but I've always been interested in computers and taking things apart and mostly playing the games up until I was about 17, and then I stopped ". As a teenager he played computer games with friends, staying up all night, but he had to stop because he was playing games more often than working on his A levels. His interest in digital literacies increased when he got his first digital camera and:

"we'd make like little films with my friends...in the early 2000s there were these Jackass videos of these grown men doing stupid stuff. As a teenager, it was just like we've got cameras, we can do this and so you know I was, I was never doing stupid stuff, I was filming them and egging them on. I realised how easy it is to make a film to create something"

David currently uses social media; he has been on Facebook for a long time and uses Twitter although he says it is a bit like "shouting into the wilderness". He uses it to try and get help with some computing problems he may encounter at school.

He trained at a university in northwest England and says that he felt that the Foundation Subjects including computing got very little coverage, he can remember doing a bit of podcasting. Whilst at university he had the opportunity to study abroad through Erasmus and went to Denmark where he took a module on animation which included moviemaking, including different types of shots, storyboards and animation. He says that "It was an amazing campus, and an international animation school was part of it and these people were amazing. You know, this was just how to use it in schools, and it was amazing".

David has a lot of freedom over how to plan as long as he builds in the national curriculum goals. He tries to plan activities which are purposeful and will regularly use film as both a stimulus and a creation. Within Year One he has three themes and as long as he reaches the national curriculum targets, he can teach it as he pleases. In one example, 'the moon landing' he describes how he and the class try "... to recreate our own moon landing with the cameras and the iPads and lessons with logo. We've been using Google, Google Earth and Google Moon to kind of plan where we'd land and stuff. And it [digital literacies] kind of fits in our computing curriculum and always kind of comes up. But I think it is used in a lot of lessons, kind of under the radar, I suppose, especially having access to the YouTube library of films and, and all the, all the amazing resources". It can be seen here that David follows the learning outcomes and designs his own activities that fit the objectives (Trinter and Hughes, 2021). He can be seen as an active curriculum maker within his school (Hizli- Alkan and Priestley, 2019). The school management trusts him to make the decisions about the needs of his learners (Monson and Monson, (1993).

There are many digital literacies that David wishes the children to learn, he wants them to create and have resilience within that creation "... cause things do go wrong and having that kind of you know... Yeah that hasn't worked. We can get rid of that [attitude]". He also wants them to build the skills of cooperation and gives examples of children working on the same project at the same time using Google docs, he feels that they all have devices so they can all get involved. He explains the importance of developing independence in their own reading and writing skills for standardised tests but considers

that the majority of work in the class can be undertaken collaboratively as he places a high value on children learning to work together.

David feels that the senior management of the school appreciate the outcomes of the film making and use of digital literacies and it is celebrated within the school with an 'Oscars' day. He does not think though that the headteacher realises how much time it takes, the deputy headteacher has started making his own films and David acknowledges that "now it's kind of becoming normal in the school". During lockdown, film has been used extensively, with over 700 films made by the school now on YouTube. Teachers have started to create their own style. He hopes that when they are all back in school more teachers will be comfortable using it.

When asked why digital literacies is important David said that views it as a creative thing, that it is a way of using a tool to create and be aware of new technology. He described children as digital natives but thinks that there is still a lot for them to learn, including using mouse control and shortcuts that can be used on a computer. He feels that it is an important part of our lives, so it needs to be taught.

David is also motivated to use digital literacies as he considers it provides meaningful, purposeful, engaging literacies activities for children. "I suppose that we're creating things where, you know, I've always felt with writing, especially if you just do writing, and it just gets marked and put in a book, then what's the point, and kids get to get to that point where it's just another piece of writing whereas if they're making something it has more meaning. If they're writing an argument to someone or reading the letter out, I think. Yeah, I've always felt like you need a purpose for literacy".

He says he finds it frustrating that some consider digital devices to be a passive thing. He described early apps where children just needed to tap to make a bird jump comparing it to Minecraft (www.minecraft.net), an app that allows children to create quite complex active things. This has been added to all the school's iPads.

David approached the photo-elicitation in a completely different way to the other cases, by looking at his development as a digital literacies' teacher from the start of his career in 2011. He arranged the

photos in chronological order and explained how the developments built on each other. He said that it was an enjoyable experience and it had given him time to reflect, he later emailed me to say that he had added to the photographs and he and the headteacher had used it as a presentation to the governors to show the positive effect that digital literacies have had on the school's development. I think that it is interesting as it shows how reflection can enable practice to develop within a school.

It started with a digital camera, originally there were four in the school and David had to lobby the headteacher for more. They began by leaving them on tables so that children could take pictures of their work. He considers this change "empowering for the children" as they could use them when they wanted. He considers that this was the start of his use of film in the classroom, as before that

"...we had desktop computers, we had old interactive whiteboards and that kind of thing. I don't think digital literacies was taught. It's a hard term because it's doesn't really show up on the curriculum, especially in Key Stage One. I think it's, it's super important. So, we kind of have to shoehorn it into different lessons".

His next step in 2012 was to set up a blog, he did it by himself and then told the Head Teacher afterwards, he says "you know kind of, apologize rather than ask permission. I've done this blog. I think it's a really good idea let's have a go". Because the children in his class were only 5 years old, he asked them what they wanted to tell the world:

### FRIDAY, 5 OCTOBER 2012

Dear World,

I hope you will come to our school one day.

We have new school dinners and they are delicious and yummy.

We have lots of fun in Anansi Base. Love the children of Anansi Base

#### Figure 3 Anansi class' first blog

He sees it as a good opportunity to provide a wider audience for the children's work and to begin to prepare them for an online presence. The school have the comments turned off and the videos are locked down for safety reasons and so that inappropriate comments cannot be added. David sees it as being amazing, as the school can upload pictures of work and any films that are made. He feels that it helps to make literacy more purposeful for children as it gives them somewhere to publish their work and a far greater audience for it. This again slowly helped change the culture of what could be done in school. The blog continues to this time and David says it was invaluable during lockdown.

The next big step for David and the school was in 2013 when the Head Teacher took David to visit a school in Leeds which was one of the first to have iPads in the room, David explained, "and we walked around, and the iPads were in the middle of the tables for every lesson but the kids weren't playing with them. This is strange you know; you stick a computer and all the kids want to play them. And it had just became normal that the devices were there". These then replaced the cameras in the school as you can do so much with them, the original ones are still in the school, but the school have invested in 40 new eighth generation ones. He considers that it is important that the children have ownership of the iPads, so they need to have access to them and be familiar with them. David thinks that "having that tool in every class I think is, you know, such a big change. Rather than having an IT suite where you can't access it, or once a week". If children come to the Year One class with an expertise the use of iPads, they are designated as an expert and they help their classmates.

At the same time visualisers were also purchased. At the start of a lesson David would film himself modelling an activity, and then after modelling live what to do, he would put the film on a loop so that children would have it on in the background if they needed support. The children then used this as a tool to help them with their learning. Even though most of the teachers do not use them, David considers them to be vital as "if children do a piece of work I can show it on the board, I can model it I can take a photo of it, and edit it, without actually editing it, because, you know, no one likes their work, scribbled over in red pen And, yeah, I think, kind of visualizing and digitizing that work is super important".

David noted that the use of iPads as a tool to make films really took off in his classroom when he discovered the app 'Puppet Pals' (www.apps.apple.com), a free version is available that allows children to make their own stop motion animations far more quickly than previous apps were able to. Children can make cut-out puppets and then move them around with their fingers and provide voice overs for the story. David considers it "... amazing, Such a great tool. It's been rolled out across school children make little puppet shows, ...but, yeah, really effective I think". Again, here David is using his in depth knowledge of available apps to design a curriculum that goes beyond that of the prescribed one (Grimmett and Chinnery (2009).

The use of film within his own and the school's practice continued to grow after attendance at a Makerspace event for teachers run by a university. During this project, David saw a demonstration of the use of green screen "there was a tech demonstration on how to use green screen for the first time, and within a week we came home and this is (photo of a child as a spaceman upside down) a child who's in space and using the green screen, and having that kind of purpose is so important at our school for writing". David uses the film to engage children in writing, the school favour 'Mantle of the Expert', and writing begins with drama, and in David 's case film. He shows a picture of children dressed as spacemen. The children made films about going into space and then engaged in writing activities including:

"in this example the children who are being the astronauts, didn't know how to get dressed. So, the children wrote out instructions. And then recorded instructions, and then we pretended to be the astronauts get, dressed and film them as though they are upside down just having that purpose, I think especially Early Years /Key Stage One is so good. And we wrote a letter home to the parents...the children are going into space, can you sign permission slips and it just made it real, but the children love it and if they buy into it, it's so much easier. So much learning going on.

David now has a Dance Studio in a new building that has a green wall and a microphone system and children use iMovie to make films. This room has been used in lockdown to film lessons and David feels that colleagues are getting "more and more excited by it and hopefully that will rub off into classes. So yeah, green screens, just that kind of making things real".

In terms of viewing film and using the internet to engage in multimodal texts the upgrade to broadband made a huge difference to teaching practice within digital literacies. David explains, "And then we could watch YouTube videos. And, you know my class is the Anansi class. We found this 1969 film of the book. And it's amazing the animation is beautiful. And it's the same style as the book that comes to life. And, you know, the children love this story, and just being able to access videos in our classroom without a DVD, it's just so much, so much easier". YouTube is also used to watch videos that support other subjects such as music and maths, David feels that fibre optic broadband has made a lot of difference to colleagues' use of digital literacies. The improved broadband has also meant that film making within the school is increasing and that they can be published to the blog, which gives children a far greater audience to their work. When David has ITE students from a local university he gets them to work with children making films.

In terms of staff working with digital tools the use of 'Tapestry' (https://tapestryjournal.com/), an online journal to record children's learning, has been adopted by the school, it allows schools to share the work with parents and use recordings to communicate with parents, "just having quick videos, quick pictures of what the children are learning in school". David has used it to record himself teaching phonemes for a child who has missed a large part of school, this way the parents can help support the child as well.

The last photo brings us up to the present and is one of David conducting his first online lesson, you can see him teaching and modelling capacity. The lessons are pre-recorded and put online "it's made such a difference to teachers' practice, and also to the children, they've been able to choose a suitable time [to watch it]" the school decided against online live lessons because "parents are struggling to get them to a computer for half nine or maybe even have three or four kids in the house so we just put them on YouTube for them to access when they want".

During lockdown, David supported the staff with recordings and feels that the use of film in the school prior to this has benefited their quick response to the pandemic. He makes an interesting point though about children's responses to the lessons, "I think it's been so good for the kids. One child is in the bubble two days out of three days, so when she was in school, she was like, oh, this teacher didn't say

goodbye. At the end of the film, you know. And all this quality learning all this important stuff. It's not important. Is it really? It's the children need to see their teachers. I think yeah, sounds a bit overblown. You know why haven't they said goodbye tonight, right? Yeah, so an email went around saying make sure you say goodbye. Make sure you say hello and goodbye".

The grid below has been used to present the data from the photo elicitation interview with David and is based on his teaching in Year 1, and the Sheffield Scheme of Work that the school uses (blue text). When comparing his, and his school's, practice with Burnett *et al.'s*, (2014) suggestion for a Charter for 21<sup>st</sup> Century Literacy Education and the principles that it is based upon it can be seen that again all areas are covered. From this data there appears to be few chances of engaging critically with texts, but it may be part of classroom practice that David did not mention and could have been observed in. There are many opportunities for children to work collaboratively and from Year 1 children start to be involved in blogging.

	Criteria	Evidence
1	Are the social and cultural resources that children bring to the classroom recognised and celebrated?	<ul> <li>Children's skills in DL assessed when they start in Year 1 and if have lots of skills are used as an expert in the class to help others.</li> </ul>
2	Is there an opportunity for children to diversify the communicative practices that they participate in?	Blogging, making films, making animations with puppet pals
3	Do children have the opportunity to select, critique and use different modes and media in creative ways for various purposes?	<ul> <li>Use Google maps and Google moon as part of the learning in the year. Make films of the moon landings.</li> <li>Year 1 computing plan how to record sounds and pictures</li> <li>Year 2 creating multimedia stories</li> <li>Year 4 what makes an excellent multimedia story?</li> <li>Year 5 creating a radio advert.</li> <li>Year 6 making films.</li> </ul>
4	Do children have the opportunity to play or improvise within their own projects?	<ul> <li>Working with green screen to make films</li> <li>Short animations with 'puppet pals'</li> </ul>
5	Do children have the opportunity to work collaboratively? Is there flexibility within this?	<ul> <li>Children in Year 1 work collaboratively making films with iMovie and animations with Puppet Pals</li> <li>Making films of cooking shows to show instruction writing.</li> <li>Importance of children working together stressed in interview.</li> <li>Year 5 working collaboratively online</li> </ul>
6	Do children have the opportunity to explore what texts mean to them?	Watching film versions of stories that they know.
7	Is there an opportunity for children to explore how they position themselves, and how they are positioned by others, on and off line?	<ul> <li>Blogging is used throughout the school, in Year 1 David started by asking the children what they wanted to tell the world. Blogging is considered normal within the school.</li> <li>Year 4 how is data shared online?</li> <li>Year 5 sharing data responsibly online.</li> </ul>
8	Is there an opportunity to engage critically with texts?	Viewing and discussing films on YouTube

	9	Is there an opportunity to experiment with digital literacies in a supportive environment?		iPads used throughout the school children encouraged to make films Minecraft is on all iPads
			•	Scribblenaughts used to create stories online
Ī	10	Is there an opportunity to engage	•	Use of iPads, Adobe Spark, puppet pals
		with new technological practices?		

## 4.4 Case Study 3 Joe "there are going to be job opportunities for the children now that we can't even comprehend"

Joe is 26 years old and has been teaching for 4 years, he currently teaches in a Year 3 class but has also taught Years 4-6. He has a degree in English literature and undertook a School's Direct Salaried route into teaching. Joe's school was recommended to me by a colleague who had co-authored a chapter on the teaching of computing.

Joe defines digital literacies as "a way for children using digital technology to open up their learning in many different ways, and becoming fluent in their application and understanding of how technology can move them forward in their learning". When asked why digital literacies is important, he said:

"when I was doing my undergraduate degree. I had no thought at all that I would be teaching the way I do now using an iPad, walking around the room holding an iPad with an Apple Pencil displaying it on the screen being able to lock children's iPads and unlock them. And you know, if I think that's what technology is like now, when the children that I'm teaching are adults what on earth is technology going to look like? The way the technology is rapidly advancing, you know if you think in the last 50 years the rate of technology advancement is way more than it has been for the 100 years prior to that, there are going to be job opportunities for the children now that we can't even comprehend and so in order for us to prepare them best for where technology is and how it may develop I think that using it in the class daily and being able to experiment and, you know, getting to grips with using quite high quality technology is the best way forward for them".

Although his initial definition of digital literacies is quite broad, in that he describes using technology to open up learning, how he describes its importance does give more insight into how he understands it. He sees the fluidity of it (Cannon *et al.*, 2018), and that it is about both skills and applications (Eshet-Alkalai,2004). Much of the work that is described below both reflects the work of Burnett *et al.* (2014) and the guidelines suggested by Dowdall and Burnett (2021). His last comment shows the importance he puts on the daily use of digital literacies in his practice. Further responses below illustrate his understanding of digital literacies to include the use of social media and film, which would fall within Cannon *et al.*'s (2018) dynamic literacy.

Joe uses digital literacies outside of school, he describes himself as being an avid user of social media using sites such as Instagram, Twitter and Facebook. At secondary school he studied media and had a positive experience around digital literacies as he says

"We were lucky enough to also have quite good technology at the time at my sixth form we had camcorders and tripods, and one of our projects was to film a horror film trailer. We storyboarded and created, and the end product was to film it and edit it and then show it to the rest of the class so I think it was definitely the subject I was most interested in".

He teaches at a school in southeast London which he describes as having a large proportion of children with additional needs and many children who have English as a second language. The school is part of a partnership of schools in the same local area in which iPads are used extensively. Children in Years 1-2 have 1:2 iPads and Year 3-5 have an iPad each with Year 6 having "1:2 but they don't use them so regularly because Year Six has that added pressure of the SATs tests, they do quite a lot of their learning on paper". Most of the work in Joe's classroom is completed on iPads.

Whilst studying to be a teacher he had two sessions on computing and commented that all he did was 'Scratch' (https://scratch.mit.edu/) online rather than the app which would be used in school. When he began to lead computing within the school, he ensured that he and his colleagues received more CPD in this area. Within the partnership of schools there is digital literacies lead who co-ordinates training across the schools, each school has a digital literacies leader who attends training and then disseminates this to their school. Resources are shared across the schools so children have greater access to different types of technology than a single school would normally have. When he began teaching at the school his interest in digital literacies was sparked: "I had a cohort of children, quite similar to what I have now with quite a few children who had English as a second language some had no English at all Initially, and the iPads provided the freedom for them to be able to use Google Translate and for me to translate their learning with ease, so that they were still able to access all areas of learning particularly English".

Joe had selected photographs that he felt best exemplified his digital literacies teaching, he also completed some personal writing on of one of his favourite lessons involving digital literacies.

Joe has a certain amount of freedom in how he plans and teaches, and he extends this to his class who have some freedom over how they complete their work:

"... and we are very lucky that at school there's no restriction on teaching style or methods we obviously have things in place, we deliver the curriculum. We work quite closely as a school, to keep our curriculum up to date so obviously we use the national curriculum itself but then we base a lot of our curriculum around our community and the headteacher is very hot on research and keeping things as up to date as possible".

Joe is given the topics to be covered by the Senior Leadership Team which are taken from the national curriculum, he explained "there is no restriction in terms of how we deliver it so if I wanted to do a drama lesson around Julius Caesar, I could do that quite easily. If I wanted to keep it very close to what we're doing in English I could, ...when it comes to planning it is very much a free game. As long as it is evident that what we're trying to do is provide the best quality education to get the best quality outcomes from the children ... I've never been restricted". This can be seen as examples of both micro and nano curriculum making, as both Joe and his class act as curriculum makers, Joe by designing his activities using digital literacy and the class when deciding how to present the information (Priestley et al., 2021).

Joe's freedom in planning allows him to integrate digital literacies to engage the children in learning activities. He does not teach skills discretely but as part of a project within the rest of the curriculum. Joe considers that the skills he wants children to learn are embedded in the tasks that he plans for them, he gives an example of using an app called 'Paper' (https://wetransfer.com/paper) and although the actual task was to colour in a picture to go with work on a text, the whole process involved finding an image in a movie clip that was sent to them, saving it in their files and then importing it into their document. Work is then uploaded to Showbie (www.showbie.com/), an app

that allows classrooms to be connected with each other and with parents, so they also need to know how to save as an e-publication so it will play when opened.

When asked about assessing children in digital literacies, he describes assessing them against the national curriculum (DfE, 2013) framework for English and considers that the daily use of technology has meant that the children in his class make above expected progress in this area.

Throughout the sharing of his photos Joe described his practice. He started the year with an afternoon which he describes as "just showing them lots of the fun stuff that we're going to do throughout the year", he used the iPads to access Google Expeditions to look at the features of dinosaurs. The lesson is designed to engage children and teach them the skills that they will need to use the iPads throughout the year. The photo that he showed was of a very excited girl when she first saw a dinosaur, Joe said "although it doesn't look like there's many skills being used, they were actually having to understand that that sheet of paper with the code on it is where the dinosaur is gonna pop up". In a similar way to Alex, it can be seen here that Joe is unsure of how to assess the skills that the children are demonstrating. He describes the lesson as a way to introduce the iPads and at the same time develop children's skills in reading multimodal online texts. Through this process the children also learnt how to use the iPad camera and microphone.

He uses the app 'Chatterpix' (www.duckduckmoose.com/), an app that allows children to record their voice through an avatar or picture, as a way for children to present the learning that they have done "we did a unit of work on the Romans based on the national curriculum the aim was to know who Julius Caesar was, and a bit about him as a person". Joe showed me a short film of a girl publishing her diary entry in this way, she used the app 'clips' to find the pictures she needed. When asked if the children hand wrote it first Joe said, "I gave them freedom with that it was more of a laid back lesson where I said if you would like to do it via post it notes or bullet points and make notes of your key points, ... it's on their own iPads, they could rehearse it and delete it and start again and they had sort of an afternoon to come up with like an end product". He explained that they had the choice to either write what they wanted to say as a script or to vocally practice and record it. He went on to say that it was "... definitely one of most successful digital outcomes that I've seen and especially for children who are SEN or who have EAL which we have quite a lot of in our school. And, you know, that's such

an easy way for them to show what they actually can do in terms of understanding not only the historical facts that they've learned but also their understanding of the features of a diary".

It can be seen above that Joe conflates 'laidback' with giving choice, from the transcript it is hard to know why as much of his practice involves choice and collaborative learning. Both Burnett *et al.*, (2014) and Dowdall and Burnett (2021) emphasise the importance of children being allowed choice in how they work.

Children's work is saved as an eBook that can be shared with parents and other children in the school. The children have a choice of which apps they can use, another example that Joe showed me was produced with an app called 'Popplet' (www.popplet.com/) which allows children to produce spider diagrams. In the example he shared he explained that "the learning, was to chronologically order significant historical events, so she would have added these pictures and texts herself on a blank timeline". Within topic work children have the option to voice over their work using pictures, Joe illustrated this with a photo of a child's work in history. Joe explained, during a lesson on Boudicca "we looked at her as a historical figure and gave children a blank canvas with just the image of Boudica and the child has added in all the texts herself, and even went as far as to put the key words in bold so it stood out, so she was really sort of trying to make it clear how she was describing Boudica". At the end of this topic the children could make a fact file on either Caesar or Boudica based on what had been learned. He continues, "in terms of that creativity and the freedom to choose the apps, we said to them, they could use Keynotes, which is obviously a good one to present with and design, or they could use pic collage pages or any of the apps where you can use text and images. At the end of the term, they do a mind map to show what they've learned that term about that topic". Although Joe does talk about the skills that he wants the children to have, here he focuses on creativity and being able to choose which apps he wants the children to use (Dowdall and Burnett et al. (2021)

Joe described what he considered to be a good example of digital literacies teaching, in it he described providing children with time at the end of a unit of work to show what they have learned. The children can work in pairs or small groups and use whatever apps they want to show their learning, this allows children to either use apps that they are confident in, or Joe explained "explore apps they wish to become more advanced in". He considers that this practice enables children to demonstrate both their learning about the topic and their digital literacy skills including the use of key apps and the use of

websites to retrieve information. Joe feels that this process is crucial to their learning as "children can show each other what they can do using key apps and websites, it is crucial to their learning, and they use their own funds of knowledge to move other children on in their digital literacies and understanding".

Although what Joe describes above is quite orientated around knowledge, and there is no mention of literacy skills, he does mention technology skills in terms of using apps and websites. I assume in this instance 'funds of knowledge' (Moll *et al.*, 1992) means the knowledge of digital literacies that children bring from home as he is describing how they help others.

Joe recognises the prior knowledge that children bring from home, he describes a child who he considers comes from quite a deprived background and who finds much of the curriculum challenging. He does however have technology at home, that is used for what Joe describes as "gaming and stuff". This means that in some aspects of digital literacies he has skills beyond many others in his class. When Joe introduced a topic on the Stone Age which involved using Scratch (scratch.mit.edu/) to make a video game, he used this boy to act as an expert. Joe explained "So then I asked 'can you go around and help so and so can you show them how to do it? I'm gonna use yours as an example to demonstrate'. So he was seeing that his learning was better than the others, which it's not ever been because in English and maths he's very below average but in computing he is well advanced, so I was able to use his coding examples". Joe said that he has one of his brothers next year so is ensuring that he includes similar activities so that he can shine as well.

The school have a Twitter account which they use to showcase children's work, the account is open to all, and it is used within Joe's classroom to highlight how you can be portrayed online, indeed esafety is an important aspect of his classroom practice. The children come up with the criteria for esafety which they use as an agreement, and this is then stuck on the back of the iPad they use as a reminder. The school try and stay away from negative statements and encourage children to think about what they can do rather than what they cannot. Joe emphasises that "e-safety is a very big thing and why I've really tried to stress to the children is that wherever you post on the Internet is there forever regardless of whether you delete it. And I've given examples where I've started to tweet pictures of the children during the learning, I do it up on the board that's mirrored onto the screen and then go on Twitter and do it while they're there. And I'll say, 'oh, should I write something mean about

Alice? For example, like, you know, Silly Alice is doing this'. Then explaining that you know, even if I tweeted it and deleted it, it's somewhere there in the digital universe and it can be pulled back". The school uses comic strip examples to exemplify possible scenarios that children may encounter, and Joe reminds them to "Be careful about your posting etc. We try to keep it as positive as possible and that it's a resource that they are extremely fortunate to have at home and in school". The school have children that are digital leaders who are members of the digital literacies club. Once a term they run an assembly on e-safety to which parents are invited. They also produce an e-safety newsletter for the school.

During the pandemic lockdown teaching had to change as not all children had an Apple product at home that they could work on, Joe moved to a hybrid form of teaching with online and pre-recorded lessons, and he feels that this has made him far more confident with remote teaching. An issue during this period was that children at home have varied technology, some have very little and one family with 6 children had limited devices, the school, however, loaned iPads to many children who needed them. Joe trained the staff in the app Showbie which was used for remote teaching and assessments. To keep the children engaged Joe would do things like scavenger hunts working live in class with keyworker children whilst being live-streamed to those at home. He describes the music teacher in the school teaching virtually because she was clinically vulnerable, she used Teams in her room to teach the children in theirs. The school had high rates of engagement over the lockdown period with 95% of children accessing learning at least two or three times a week.

The grid below has been used to present the data from the photo elicitation interview with Joe, Joe's own writing as well as the schools' plan for computing (blue text). The computing curriculum overview states that "Digital learning is embedded across the school, with all teachers and children being regularly exposed to fantastic resources and technological advances". When comparing his, and his school's, practice with Burnett *et al.'s*, (2014) suggestion for a Charter for 21<sup>st</sup> Century Literacy Education and the principles that it is based upon it can be seen that there are many opportunities for children to work collaboratively and select and critique different modes and media. Similar to the other cases I cannot see evidence of children engaging critically with text but it may be part of classroom practice that could be observed.

	Criteria	Evi	dence
1	Are the social and cultural resources	•	Understands the skills that the children bring from home.
	that children bring to the classroom	•	Uses children as experts.
	recognised and celebrated?	•	Have digital leaders in the school.

3	Is there an opportunity for children to diversify the communicative practices that they participate in?  Do children have the opportunity to select, critique and use different modes and media in creative ways for various purposes?	<ul> <li>Year 4 Recognise common uses of information technology beyond school.</li> <li>Year 5 Give specific examples of uses of information technology beyond school, giving reasons why this technology has been chosen.</li> <li>Many opportunities discussed and children have opportunities to choose which practices they would like to use.</li> <li>Google expeditions, Chatterpix, Popplet, PicCollage</li> <li>Photo of children producing and consuming texts on iPads</li> <li>Children can choose which apps they would like to use and how they wish to record information.</li> <li>Mentions giving children freedom</li> <li>No specific mention of critique.</li> <li>Year 4 Use a growing range of apps and programs to create complex digital content including eBooks, animations and films.</li> <li>Year 5 More fluently use digital technologies to create, organise, store, manipulate and retrieve digital content.</li> </ul>
4	Do children have the opportunity to play or improvise within their own projects?	<ul> <li>Many examples including the use of Chatterpix to record information, making computer games within the topic of the stone age</li> <li>Mentions planning for children to have fun.</li> <li>Year 6 Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create increasingly sophisticated content.</li> </ul>
5	Do children have the opportunity to work collaboratively? Is there flexibility within this?	<ul> <li>Most work is undertaken collaboratively</li> <li>Flexibility is evident in the choices offered</li> <li>Children's choice is mentioned several times.</li> <li>End of topic work when children work together.</li> </ul>
6	Do children have the opportunity to explore what texts mean to them?	I cannot see examples in the transcript, the overview for computing plan has 'using talk to promote discussion, evaluation and enquiry.  Also giving children the opportunities to ask their own questions.
7	Is there an opportunity for children to explore how they position themselves, and how they are positioned by others, on and off line?	<ul> <li>Introduced through Twitter and units on e-safety.</li> <li>From EYFS e safety is introduced.</li> <li>Year 3 Understand how the internet provides opportunities for learning and communication.</li> <li>To understand that behaviour online must mirror that offline.</li> </ul>
8	Is there an opportunity to engage critically with texts?	<ul> <li>Some evidence of looking at social media sites.</li> <li>Year 5 Understand some ways in which internet search results are ranked.</li> </ul>
9	Is there an opportunity to experiment with digital literacies in a supportive environment?	<ul> <li>Encouraged within teaching, examples of choosing apps and ways of presenting</li> <li>Year 1 Use technology to create simple digital content across the curriculum.</li> <li>Year 6 To understand new and developing opportunities for communication provided by the internet.</li> </ul>
10	Is there an opportunity to engage with new technological practices?	<ul> <li>An example of this is the initial exploration of the iPads</li> <li>Introduction of Scratch</li> <li>Use of apps</li> <li>From EYFS – begin to explore selected devices with support including self-selecting.</li> </ul>

#### 4.5 Case Study 4 Niamh "It is going to be their future; it already is now"

Niamh is in her mid-30s and has been teaching for 7 years, she has taught in two schools. Her degree is in Digital Media, she then completed her PGCE. She recommended herself as a teacher who uses digital literacies frequently in her English teaching. She describes her school as a one-form entry school in southeast London, she has a Year 3 class and leads the school in computing. When asked about defining digital literacies Niamh feels that it should not have a label, "Don't define it. I don't think it should be in a box. I think that's what makes it wonderful. I think it needs to explore a wide area. I think it's something wonderful about creation and problem solving and play and working together. I think it's all of those things encrypted into creativity. It does every single thing that you'd want a child to do outside of the curriculum, the things that the curriculum lacks". She considers that the skills children gain through digital literacies improves the confidence of all abilities. Niamh can be seen to view digital literacies as a creative process (Burnett et al., 2014), she does not mention technology but focusses on more of the social aspects of it. Like Dowdall and Burnett et al. (2021) she places an emphasis on playfulness and collaboration.

Engagement with digital media has been a part of Niamh's life for a long time, and she enjoys many aspects of it, as a child she had a Mega drive and now has an Xbox. Her first degree is in Digital Media which, in her words was "making films, animations, understanding the importance of the internet as it was just coming along". She describes herself as liking to create and engage with technology that is interactive. Niamh follows people on Twitter as she finds it a useful way of finding out what is happening in the classroom, "I don't post on Twitter, but I do follow, I find out so much from following so many different groups about computing tech".

Niamh approached the photo-elicitation by pre-selecting photographs that best exemplified her practice, she also completed some personal writing to describe her approach to digital literacies teaching. Niamh plans computing throughout the school but because it is a one form entry, she does not get much opportunity to teach alongside her colleagues. Work is shared through Seesaw (web.seesaw.me/about) so that it can be seen by her, and she does try and go into classes to support colleagues when she can.

Niamh considers iPads to be a really useful tool that can support children with their learning. The school that she works in celebrates creativity and she is allowed a lot of freedom around planning, she says that you have to explain to children that, with tech, things may go wrong but it is important to try again if it does. Niamh has completed her training as an Apple teacher and attends workshops that TRAMs (www.trams.co.uk/) provide online, she does this to improve her practice and find new ways of engaging children, she thinks that it is important to build your own confidence and then share the work that your class produce with colleagues to encourage them.

Throughout our conversation and her writing she stresses the importance of teaching children to be digitally literate, she considers it gives them "empowerment" and "independence" and to explain further she wrote, "These skills have contributed to children's critical thinking, yet the use of digital literacies within classroom practices is an area I feel teachers /schools are still not fully compliant in. She thinks that one of the reasons that teachers do not include digital literacies is that they feel "deskilled or fearful when using technology". Niamh considers that the national curriculum (DfE, 2013) "doesn't permit room for creativity, therefore teachers feel there is little room to timetable digital literacies into units of work." She also thinks that in recent years schools have struggled to fund CPD and resources for teaching digital literacies. Niamh thinks that digital skills are very important for children both now and for their future lives, she says "They're such important skills for children to learn it's their future...it gets me quite worried that there are some schools who aren't teaching it at all. Because at the end of the day, these skills in computing and digital literacies are only getting wider, and they're becoming more of their world as we know so many more new jobs have opened up which are purely digitally based, you know, so we owe it to them. Niamh considers that if schools do not include digital literacies within their curriculum, they put children at a disadvantage for both secondary education and employment prospects. She considers technology to be their future and that it might lead to a fantastic career in AI or robotics or film. These wonderful skills which should be at the height of the curriculum really, because it is going to be their future, it already is now".

Niamh considers that including digital literacies as part of everyday teaching is important as it has an impact on children's skills, she believes that it empowers children and gives them ownership of their work. Further, that it increases independence, and she describes that she prefers to take more of a passive role in the classroom encouraging children to be active learners. Niamh says that she provides learning activities that allow children to be actively engaged in their learning, working collaboratively

with each other. She feels that it is important to include digital literacies from the Early Years and that the more skilled they are "the more they can accelerate".

Throughout our conversation Niamh provides examples of how and why she uses digital literacies as part of her English teaching. Her first example involves children working in mixed ability groups, in her own writing she described the process she took. The children wrote a description of a fairground, to support this she provided iPads, as well as sound and video clips of a fairground setting. For this particular task, the children were to create a short movie (using iMovie) to record their description over the film that they made. The lesson focussed on the use of "prepositional sentences and descriptive vocabulary to match the moving imagery". Niamh wrote "Once the children were happy with their recordings, they then were able to listen back to their audio while editing and improving the way their description sounded, giving them the experience as a writer and as the audience". Niamh felt that the lesson was successful because the children had a "great understanding of effective vocabulary which suited the setting while being able to watch the video throughout their learning journey". She believes that using film within this work supported children's writing and allowed them to use "stronger vocabulary, better description" and be more able to retain the learning from the lesson. In our conversation Niamh expands upon this and why she was so happy with how the process went. "It was so purposeful, obviously making the writing better, they recorded the fairground work using prepositions like – 'directly opposite me was a sparkling blue Ferris wheel'... yeah the writing outcome was simply amazing". Niamh felt that this particularly motivated the children who struggle with more traditional forms of literacies. She noted that she hardly had to do any directive work because the children were engaged and could listen back to what they had written. Niamh also considers that children who are below the national average in writing become far more confident when they made films prior to writing, in her own writing she says; "They were able to retain their ideas having produced the movie prior to writing. The use of digital literacies at the beginning of the learning journey had a far greater impact on the writing and purpose rather than being used as a task at the end of a sequence of learning". She goes on to write "One could question whether digital literacies are looked upon as an outcome rather than an effective platform to support children's writing or whether teachers simply feel it could be a time constraint or prove difficult to evidence when monitored by Senior leadership".

iPads are an important part of Niamh 's practice, she uses green screen, in this case green backing paper, and an app to make films. She gives examples of making films in all subjects, for example, within history children made a video about Roman gladiators, the children wrote scripts for an advert to be a gladiator. She also uses the Morpho app (www.morpho.tv/) so that the children can use the animation to voice over famous characters speaking, she expanded "and then they were able to put that into iMovie and write that text over the top".

Niamh is responsible for planning computing for the school, and she includes the study of films including types of shots and the use if sound effects. She uses Literacy Shed (https://www.literacyshed.com/), where examples of short films can be found, and this gets children talking about film she describes it as "so engaging and brilliant". Niamh says "So I try and embed it as much as I can, but I think there are constraints there in school ... obviously. I've really pushed forward to try and do a film unit but it's always you know whether the literacy leader thinks there's a place for it". Although Niamh has expressed her concerns about teachers not feeling they have time to include digital literacies, this could be because they worry about accountability (Hizli- Alkan and Priestley, 2019). When designing both the school and class curricula, it can be seen that Niamh has the agency to work as a curriculum maker, based on her strong subject knowledge.

Children who struggle with writing can use iPads to record their compositions, Niamh describes a child who had broken their arm, and used this rather than have a Teaching Assistant scribe for them. Niamh explained, "I think this is a lovely tool, so many times we have TA scribing or we're trying to build up you know child's confidence when they're actually orally quite good" Niamh instead gets the children to record their work which helps children who have problems with spelling show their knowledge of texts. Niamh uses a variety of apps to engage her class in English, 'Tellagami' (https://tellagami.en.uptodown.com ) is used for children to present their work, they are able to download backgrounds and then type the words that an avatar will say. A video clip, made by a child, illustrated this. It was of an avatar outside the Roman Baths in Bath which worked particularly well with a child whose confidence was improved when using this app as they did not like the sound of their own voice because they had a lisp. Niamh feels that "this is a great one for creativity and presenting, it normally works quite well for nonfiction" because "it sort of looks like a kind of news reader, which is brilliant".

Year 6 complete a unit on stop frame animation. In the example that she shares the children have been working with a high-quality text – The Arrival by Sean Tan. Niamh mentions creativity several times and notes that by the time the children get into "Year 6 they've had a lot of practice before, they've done stuff with me and they've continued through the years, so I think that shows the sustainability in a school if you keep doing it. You know they can then produce something amazing". As part of science children use iPads to take photographs to show their work, they also use the apps pic collage (https://piccollage.com/) and comic life (http://comiclife.com/) two apps that allow children to create texts with images and print. Niamh explained that children wrote their own instructions, taking pictures and inserting them into their work. The children had "complete ownership" of their work and used their digital literacies skills to demonstrate their understanding in science, Niamh feels that digital literacies "can lend itself to so many ways and it's lovely and they remember these things".

The children also use Book Creator (https://bookcreator.com/) to make eBooks, it is used in younger classes to make phonics books and children can write their compositions in it and share with other classes, so that the school have a collection of them. Niamh also uses her Kindle on the visualiser to read to children. Within all of these examples children are encouraged to work collaboratively, they work in groups of between 2- 4 and even when working on coding they are grouped together as Niamh is concerned that such activities can become isolated and passive. Niamh stresses the importance of children working together within digital literacies and the social behaviour that results from this "They work so nicely I've never once been a classroom where I've got the iPads out, we're doing digital literacies and an argument happened...they are generally in the room loving it and the more you do it, the more they have those social skills. That's what we want more than anything... it does a lot for team building and working together and listening to each other and sharing ideas". Some blogging does go on within the school and work is also shared on Seesaw (web.seesaw.me/about), Niamh has some concerns and says "I find blogs, great, but I think they have to be used, really well, and our blog if I'm honest isn't. It is something we're going to try and move off and use Seesaw more. Because parents can actually see what they're doing in the classroom rather than, you know, a presentation of it".

There are a couple of teachers in the school who currently have similar practices to Niamh, she finds that it is "the younger teachers that want to do it. So, you know they're more used to using Apple they understand tech because they've been born into it more". Niamh explained that as computing lead she

constantly encourages the older teachers to become more involved in technology. She offers training to them to improve their confidence. She feels that "in a way, lockdown has been great, because one of our Early Years teachers is a bit of a technophobe, and she's had to use Seesaw, she said to me, 'I get it like it's such a wonderful application'. So, in a way lockdown has been great for people in computing because, you know, adults are starting to see how easy it is to get instant access to learning and feedback. So, I'm trying to push, how remote learning can be sustainable in our school and ways that you can keep it going, rather than just letting go because we put so much into it now".

The grid below has been used to present the data from the photo elicitation interview with Niamh and her own writing. When comparing her practice with Burnett *et al.'s*, (2014) suggestion for a Charter for 21<sup>st</sup> Century Literacy Education and the principles that it is based upon a key aspect is the choice that they have to use different modes and media, there is collaboration and a chance for children to work with new apps in a playful way.

	Criteria	Evi	dence
1	Are the social and cultural resources that children bring to the classroom recognised and celebrated?	•	Children use film extensively and although not explicitly mentioned this is an example of digital literacies that they use at home being used in school.
2	Is there an opportunity for children to diversify the communicative practices that they participate in?	•	Many examples within transcript – iMovie, voice recordings, Book creator, Morpho, Tellagami,
3	Do children have the opportunity to select, critique and use different modes and media in creative ways for various purposes?	•	Examples within text that children can choose what they want to do. Is integrated within literacies teaching, creativity is mentioned by Niamh when she describes what digital literacies are. Extensive use of different apps to create multimodal texts.
4	Do children have the opportunity to play or improvise within their own projects?	•	Examples of playful practice including use of film.  She names many apps that children can use to present their work and these can engage the children in playful learning.
5	Do children have the opportunity to work collaboratively? Is there flexibility within this?	•	Children are encouraged to work collaboratively and can select who they work with.
6	Do children have the opportunity to explore what texts mean to them?	•	Some examples of working with known texts.
7	Is there an opportunity for children to explore how they position themselves, and how they are positioned by others, on and off line?	•	School has a blog and uses Seesaw so presents children with some opportunities.
8	Is there an opportunity to engage critically with texts?	•	Criticality is mentioned in transcript, feels digital literacies leads to critical thinking.
9	Is there an opportunity to experiment with digital literacies in a supportive environment?	•	Examples in transcript show that this happens regularly, children are given a choice over how they wish to present their work.  Niamh's transcript illustrates how she supports children in her work.

10	Is there an opportunity to engage with	•	Many opportunities are included and children given choice over what
	new technological practices?		they do, new apps are introduced and Niamh ensures that her practice
			is up to date.

# 4.5 Case study 5 Mark "it must be something that is enriching or adding on or enhancing their life experiences"

Mark is in his early 30s and has been teaching for 3 years, he has two undergraduate degrees, one in Law and an accelerated degree in Primary Education. Following his undergraduate courses, he undertook the Teach First route into primary teaching. When asked to define what digital literacies is he says; "I think ... digital literacies for the children means a multimodal experience, so they can do their reading recordings on their device, they can present the animations they're creating, they can design keynotes and videos, which allows them to present themselves in ways that they wouldn't have been able to do before". He considers that it is important for parents as well, as it provides more transparency between home and school because work is shared by children immediately. Mark is the only teacher to include multimodality within his definition and his definition resonates with the work of Kress (2003).

Whilst training to be a teacher Mark had very little teaching in digital literacies, he explains, "it was not explicitly taught in any meaningful way. Again, it was about what what's your digital curriculum at that school and then it's like, online safety, which is a very, very different thing from digital literacies. So yes, so I'd say, it tends to be taught very separately, not very connected, even when we focused on writing It was not mentioned at all".

He teaches at a two-form entry primary school in a semi-rural area. He describes the school as containing a large number of pupils that receive pupil premium. It is an Apple school in which children are allocated iPads to work on at home and at school. Mark currently teaches in Year 5, he also has experience in Year 4. He says that his current class contains many students who have been identified as having SEN. Mark has won an award in his county for his teaching in computing.

Before Mark began teaching at his school, he describes himself as "more of an observer than a creator, I didn't make videos. I took an A level in film studies because film is of interest to me, but I wasn't a producer and it was more just an idea of like, wow, if I know how to get good at that thing, I might do it. Whereas because my school has digital literacies as part of everything you have to get on board". In his own words he describes his interest in digital literacies when young, he had consoles as a child and has always had an interest in "gaming, anime, technology and film - having completed an AS Film course after university for personal interest". Within the school digital literacies is "part of the culture"

it is embedded in all activities. When Mark started at the school, he describes himself as being a "bit reticent" about this and could not visualise how it could be managed effectively. He thought it may be "sort of like a cheat...in that sort of oh if you're going to get a child to just type something up and to autocorrect their work, what is that they're actually doing". Mark thought it might be bit of a "glossy add on". He says that this negative attitude changed and that the school, "definitely considers technology not to be that thing, it must be something that is enriching or adding on or enhancing their life experiences or providing them with opportunities that they wouldn't have otherwise".

During our discussion Mark chose the photos as he went along, and he followed up the interview by sending me some of his writing describing his best practice along with some film clips that his children had made.

Mark and the staff in the school have freedom when planning. In terms of paperwork the staff must use their keynote sequence, the slides that are used as a plan for the lesson, which is available for senior leaders to look at. The freedom that is encouraged for teachers is also apparent in the description of Mark's digital literacies practice below, there are many examples of children having freedom of choice within their work. Skills in digital literacies are taught both contextually and discretely, Mark describes his class as being able to download and upload material, using screenshots and hyperlinks seamlessly, they can create galleries of photos and create mind maps using words and images. He says that they develop these skills by "just playing around with their iPad split screens. The children have to complete certain tasks, every evening as part of their flipped learning. They'll do that at home, and they might have FaceTime with another child in their class to help them complete that learning, and they'll access our core apps". The staff decide which apps to have on the iPads each term, Mark's description of what the children do expands his definition of digital literacies as his practice includes the wide use of apps and a lot of collaboration in their work.

Mark believes that his own skills have improved from being in an Apple school, he feels more confident making films and watches esports more regularly, this, he feels, gives him more of a connection with the children in his class as they can discuss what they have seen together.

He considers teaching children digital literacies important for a number of reasons, he explains "So I think it's important to teach it because it's already here, and it's only going to get more advanced, more developed, I think in terms of our approach it is very much about preparing children for tomorrow". He says that within the school there is much dialogue as to how much they should continue with teaching handwriting, as well as what the children need to know. He questions whether "is it important for them to be able to know how to create a letter or should we be looking at things like website design, is Adobe is a more effective use of their time development and skill development?" As can be seen from this statement, Mark and his colleagues act as Priestley et al. (2021) describe, mediating the official curriculum in response to their schools' culture and beliefs. They have to be mindful of external accountability in the form of standardised tests, as children are required to have legible cursive handwriting.

Throughout our conversation Mark shared pictures that best exemplified his practice. Within the class a thematic approach is taken to learning. Whilst completing the topic 'Space' he explains that the children "constructed their own posters on their iPad, they combined factual information which they had to research first of all, and then organize it for their posters". He described the literary features of text that he modelled as well as the design features of a poster including features such as text boxes, illustrations and backgrounds. Within the classroom there are no 'working walls' rather there is a main screen with a smaller screen either side. In terms of the pedagogical approach that Mark uses, he explained that the screens are used for teacher modelling, for children to share and edit work with others and to show examples of what children have done in the lesson. He considers that this allows more collaboration between children because they have the opportunity to work together on a larger screen. There are many apps that Mark uses in his practice to enhance children's engagement in literacies, an example of this is 'Toontastic' (www.toontasticwithgoogle.com) in which children can sequence events, write their own scripts and move characters around on the screen. He says that the children in Key Stage One really like this app as it helps them to communicate and express their ideas.

Mark wrote a description of what he would consider to exemplify his best practice. During the topic on the solar system, he wrote that the children were "given the freedom to be autonomous, working in small groups, depending on their chosen medium. Throughout this time, children were encouraged to collaborate, proof-read, offer instant visible feedback and share skills, however, the expectation was for them to independently showcase a final piece of work. The children are well-experienced in self-

directed learning and co-constructed projects". In this description the importance of collaborative learning and freedom of choice can be seen as well as the aim for the children to work independently at times. The work was concluded during lockdown when some children were in school, and others were at home. The children had a choice regarding what their final presentation was, work was varied and included art and digital literacies: further examples are presented in the grid at the end of the case study. Here, and in the section below, Mark and his class can be seen to be nano curriculum making in that they are negotiating the curriculum within this topic, which is set within the national curriculum (Priestley et al. 2021). Mark is also designing the curriculum in the way that Trinter and Hughes (2021) describe as Pedagogical Design Capacity, as Mark understands the curriculum expectations and makes decisions about how to teach it.

In the lead up to Christmas Mark's class were creating newspaper reports based on 'A Christmas Carol', they looked at what was happening during the period the book was set and created puns around the technology that was being developed at that time. They inserted titles and considered what the captions would be, along with selecting photographs to insert. To engage them in their learning the children watched various film clips from the movies of the book, whilst creating timelines of the events which allowed them to consider how each character may feel. Mark feels that during the pandemic he has "utilized more videoclips than ever before, as part of the normal learning I would generally start off with clips as a main source, because it's just so relevant to how they interact with the iPad". This allowed children to look at different interpretations of the book and discuss the different ways that films are made. Mark said that this led to a discussion of motion capture after watching the Jim Carrey version of the film.

Choice is a recurring theme when Mark is describing his practice, he describes the class studying the docks that are close to the school "We were doing about the docks, and the kids were really interested in tattoos, like what the significance of different tattoos was. They created all these different designs of tattoos as well as identifying the ones that sailors would have. And then they produced a video as well, which is a good example of them taking ownership of their learning". It is important to Mark that children have autonomy over their learning and know how to present themselves online, he describes how he has "an iMessage group for each half of my class, and they are just divided by colours. One is red and one blue and they can share and communicate within those groups as much as they want to,

we go through a training process of showing them how to block people if they want to how to regulate chats if they want to".

Within the school children draft and edit their writing on their iPads and normally once a week they publish their work by handwriting it into books, this focusses on their handwriting formation. In the example that Mark shared the children were creating a new 'Guardian of Childhood', they spent the week working on it and then wrote it out on a Friday. Not all work is done this way for example newspaper reports were all completed using iPads. Mark explained that during the lockdown this has become more challenging and has "created greater disparity between in school learners and at home learners...because the ones in the classroom if they have to hand write it out, they kind of do it a bit begrudgingly because children at home are able to publish their final work digitally". The reason that there is such an emphasis on handwriting is because to be classed as working at 'in greater depth' in Year 6 assessments children must write in cursive handwriting.

Children within the school are very familiar with both viewing and making films, the children create animations regularly and staff make films if they want to convey something important to the children. Mark considers that it is important "that they don't just become consumers, but they become contributors as well, so it's not just about constantly being fed information it's about giving back it's about producing things from that". This again illustrates Mark's understanding of digital literacies as he describes the importance of both consuming and producing text, this together with the examples of children working collaboratively, resonates with Burnett et al.'s (2014) charter which was designed to provide an empowering literacy education. Within it class teachers are encouraged to "Promote collaboration around and through texts in negotiating meanings" (Burnett and Merchant, 2018: 4). During lockdown children at home often made films and sent them to Mark as part of their English work, a film that he shared with me was made by a boy and his parent. The film has the 'Jaws' soundtrack and switches between 2 scenes, the first the child sitting at the kitchen table innocently playing unaware, with calming music in the background, the second scene is that of his parent coming down the stairs with the hair clippers with the Jaws music as a background! The knowledge of film and storytelling is obvious, and the child was fully engaged in their learning. Much of the work, including this film, is shared on the school's Facebook page, which gives children a far wider audience for their work. This includes examples of children's presentations and films of growing vegetables at home as

well as creating albums of films of their families, Mark feels that they use film in a way that children used to use scrap books to keep photos.

The grid below has been used to present the data from the photo elicitation interview with Mark and his own writing. When comparing his practice with Burnett *et al.'s*, (2014) suggestion for a Charter for 21<sup>st</sup> Century Literacy Education and the principles that it is based upon, it is noticeable that a key element of his pedagogy is offering children the chance to diversify their communicative practices. Children work together regularly and are encouraged to improvise within their own projects. This is an Apple school, so the majority of the work is completed on iPads.

	Criteria	Evidence
1	Are the social and cultural resources that children bring to the classroom recognised and celebrated?	<ul> <li>Children's film during the pandemic shared and celebrated.</li> <li>Children given autonomy over what they produce.</li> </ul>
2	Is there an opportunity for children to diversify the communicative practices that they participate in?	<ul> <li>Examples show that children are introduced to new apps and ways to communicate.</li> <li>End of unit work described in his own words: <ul> <li>a papier-mâché solar system featuring moons and planets</li> <li>a video diary of a meteor shower on board the ISS (inspired by a VR video on YouTube)</li> <li>a non-chronological report on black holes (made in Keynote)</li> <li>a biography on Tim Peake (made in Keynote)</li> <li>an animation of the lunar cycle and digital calendar (inspired by a PBS website)</li> <li>an alien race made out of toilet tubes and augmented using digital camera effects</li> <li>a non-chronological report about a newly discovered alien race (created using Keynote, Sketches and an app that digitally alters background)</li> <li>a clips video explaining our Solar System (using a MERGE cube and the MERGE app)</li> <li>a short presentation on space for KS1 and a planned activity using coloured powder paints to create a star explosion (using Keynote).</li> <li>an instructional baking video explaining how to create asteroid clusters and bake galaxy marble cake (using Camera and Clips)</li> </ul> </li> </ul>
3	Do children have the opportunity to select, critique and use different modes and media in creative ways for various purposes?	Many examples of children being able to select different modes and media, no examples of being able to critique but strengths and weaknesses of particular apps are discussed with children.
4	Do children have the opportunity to play or improvise within their own projects?	<ul> <li>Much evidence of this and is encouraged through the school, evidence from Matthews own writing as well. Films made at home during lockdown. Evidence from criteria 2.</li> </ul>
5	Do children have the opportunity to work collaboratively? Is there flexibility within this?	<ul> <li>Examples of working on large screen together</li> <li>Working on a Christmas Carol</li> <li>Investigating tattoos after a trip to Chatham</li> </ul>
6	Do children have the opportunity to explore what texts mean to them?	Could be implied from the films that children have made in lockdown, they respond to know texts through film.
7	Is there an opportunity for children to explore how they position	<ul> <li>Some examples through messaging each other in class and the school uses Facebook extensively to share children's work.</li> </ul>

	themselves, and how they are positioned by others, on and off line?		
8	Is there an opportunity to engage critically with texts?	•	Comparison of versions of films and texts
9	Is there an opportunity to experiment with digital literacies in a supportive environment?	•	Many examples of this in case study, true of both teachers and children. Evidence provided in criteria 2.
10	Is there an opportunity to engage with new technological practices?	•	The children use iPads throughout the school.  Technology is updated in the school and Mark looks to introduce new apps.

## 4.7 Case Study 6 Fran "We need to prepare our children to be able to engage in learning as much as possible"

Fran is in her early 50s and has been teaching for 28 years, she is from Scotland and teaches in a Scottish school. She currently teaches Primary 7 (Year 6) but has also taught Primary 1-5. She was recommended to me by my supervisor as someone who was interested in digital literacies. Fran undertook a B.Ed. with honours in a College of Education in Scotland where there was no training in digital literacies, this was true of her school education as well because of the era in which she was educated.

She considers digital literacies to be "a way of how we can digitally communicate with each other, …what digital tools that we use to try and share ideas to communicate and to make learning as real, as possible, and engaging for all". When asked about digital literacies practices out of school, Fran talks about the use of Twitter but that is all. She says, "I don't blog, I don't do computer games in fact I don't even know how to switch an Xbox on which …the kids laugh about as well. I just like preparing things for the kids to access … I'm on Twitter, but it's more for school Twitter and I suppose you pick up a lot of ideas from there, that's where a lot of the courses come up".

Fran's definition of digital literacy focusses on communication which goes beyond just producing and consuming texts (Buckingham, 2015), the description below, of how texts are consumed and produced in class (Channon *et al.*, 2018), does show that this part of what Fran considers to be digital literacies. She does describe the use of digital communication which Eshet-Alalai (2004) mentions within his definition. Finding ways to engage students is also important to Fran and she considers that the teaching of digital literacy allows this, a view which resonates with the work of Watts (2007), Burnett and Merchant (2018) and Doyle and Jones (2019).

The school that Fran teaches in was opened in 2017 and she describes it as a "fairly modern and ... semi open plan", expanding school with approximately 500 pupils. It is a community school and as such hosts groups from the local area for activities such as mother and toddler groups. Fran continued to describe the town as a commuter town for a large city, where many parents that are employed by the oil industry live, the children are from diverse backgrounds including Mexico and Nigeria and many languages are spoken by the children. Fran describes the area as "quite kind of affluent in some respects, but we've got a mix of low-cost affordable housing as well within the mix, so we've got a mix

of kids really". Fran explains that the school has recently had a new build and is divided into zones, each of the zones, "have a computer trolley with 16 iPads and 16 laptops on it, since COVID iPads have been a way to help support learning from home". She explains that since lockdown both children and teachers have been borrowing them. She goes on to describe that in Scotland schools have "a one plus two, so our school focuses on Spanish which should be the one that's kind of immersed within daily teaching and learning so instructions and things should be given that, and then French is our second language".

Fran found selecting the photographs a challenging task as she had so many to choose from, so she explained that she put together a Power Point as a "kind of snapshot of what focuses we have had in the different contexts".

Within Scotland digital literacies are part of the Primary curriculum, as outlined in Chapter 2, the definition of literacy is "The set of skills which allow an individual to engage fully in society and learning through the different forms of language, and the range of texts, which society values and finds useful" (Education Scotland, 2015; accessed 3/10/21). It is interesting that digital literacies are not specifically mentioned, but aims including the use of technology, are integrated throughout it. So, when planning Fran says," it's something that it should be kind of permeated throughout the curriculum, you should be looking for ways that you can introduce digital literacies as much as possible and the easiest way to incorporate it is in things like cross curricular activities". The team plan within a three-year rolling programme, and staff have particular outcomes that the children should reach. Fran works with teachers in the same year group, and they create topics of learning or focuses. Fran ensures that children work collaboratively in class, she explains that when working digitally children can all work on the same document at the same time "when you're doing things in cooperative teams within the classroom situation, somebody could be doing some part of the art work or whilst somebody's moving on, working in another part of it as well. Then it all comes together it's a completed project". When Fran thinks about the learning that she wants to happen and how to incorporate digital tools she "just kind of think[s] right, how can we incorporate digital tools in this experience to make it better for the learners. They've [the children] got personalization and choice which is another big thing with us as well, so they can use what they're familiar with if they want to or they can expand their knowledge and try new things". Hizli- Alkan and Priestley's (2019) study focussed on Scotland and Wales as the curricula of both countries were designed so that teachers would work as active curriculum makers within their school. It can be seen, above, that this is what Fran and her colleagues do when designing learning with her team.

Because digital literacies are part of the curriculum, Education Scotland provide Continuing Professional Development (CPD) for teachers, this is done through local authorities and open to all. Fran had been on an all-day course learning about 'Canva' (canva.com), a graphic design app, the day before our interview, Fran explains "another authority had a digital training day yesterday. Which was really good and because you could watch things live and then you've got links for the other workshops you didn't get to see, because it was on YouTube, but you can go back and watch them later on". She had used this app the previous year to make the school yearbook.

When she became a digital team leader, a whole day training course was provided, and the local authority have a digital team that provides training to keep the leaders up to date with new technology and software. Each school has digital leaders that attend the training, which is then disseminated within the school, Fran says "they're amazing, the teams that they've got... give support and you know you can ask questions and it's really good".

Fran is interested in digital literacies within a school setting because she likes "kind of exploring and seeing about creative ways to engage children in learning" but also because she recognises the importance of it in the 21<sup>st</sup> century. She thinks that "in this century we are in, things are changing all the time, the kids coming through school just now, the jobs that are going to be available for them are not created yet, and digital technology is changing, what's out there is so different to what there was there when I left school... I think we need to prepare our children to be able to engage in learning as much as possible".

Another benefit of using digital literacies that Fran identifies, is the fact that "it can help these kids that are not so good putting things onto paper. They can express themselves, through digital means, in a way that is far easier for them to use. And what they can produce at the end of the day, are pieces of work that they are really proud of... and they didn't think they'd be capable of doing".

The photos that Fran shared and discussed exemplified her practice, she has an extensive knowledge of which apps and programmes she introduces to her class to engage their learning. An example of this is 'Book Creator' (bookcreator.com/) which she uses for many things including to record learning, children use it to write summaries of books and create adverts, Fran explains that it is used for many things because "it's accessible for all, the tools that are there are really appealing, and the kids absolutely love it...and it's something that they can work on in pairs or individually. There are no boundaries, depending on what the purpose is of the learning, just lots of things there for the kids to explore".

Another app that is used to showcase learning is 'Clips' (www.apps.apple.com), again the children work in groups and Fran considers it to be quick, easy and accessible to all learners. One photo shows a poster that a child has produced using it. She describes how the children use 'Garage Band', an app to create music, to back their work and for things like book reviews She explains that "you can use your own soundtrack that matches the theme of the book, choose the colour and everything as well so that's something that they also have loved using". 'Chatterpics' (www.duckduckmoose.com) is also used to present work, in which the children can make short animations and voice overs.

Fran is currently trying to get 'Minecraft for learning' (www.minecraft.net) on the school computers, as she describes it as "something they have done a lot of at home", she is keen to give children different challenges and allow them to create things themselves. This clearly shows that Fran is aware of the importance of incorporating children's home knowledge and experience into her classroom and reflects the findings of Doyle-Jones (2019) who found the use of apps strengthened the links between home and school. Children work in pairs or groups depending upon the learning, and are afforded choice when working, including whether to use digital literacies or pen and paper as well as deciding which apps and programmes they would like to use. Literacy activities are purposeful and often taught through a cross-curricular approach, an example of this is when the whole school was asked to design a poster about dropping children off safely at the beginning of the day. Fran describes how this was done as a form of competition and the successful poster was made into a banner to be displayed outside the school,

"I showed them how to use Google Slides, it was the first time that they had ever used it, and they absolutely loved it because it's so easy so quick to use, and it looks so professional ... this boy's poster was the class finalist for the competition...And he loved it because if you asked him to go and actually create a poster by hand, he would struggle because his motor control is not great at all, and his writing's quite messy yet his poster was really good, he was thrilled to bits, because it was chosen as one of the two to go through, representing the class".

Within the school Fran has a group of 'digital leaders' and explains that: "they do an Internet safety assembly usually at the start of the year, to the whole school, they work together and come up with something to share." Fran describes how the children give information but also "give examples of scenarios of what they should do when online". They also work together to create short workshops on internet safety that they take to each class in the school. The digital leaders are allowed to Tweet, but they have to check with Fran before they post, the school posts examples of children's work and information about the school including Makaton sign of the week, which is presented as a short film. Fran considers it to be important that children become "responsible citizens online, and that they're respectful towards each other, because what they say out there, their digital footprint will be there forever. So, it's to make sure that they think before they post and are safe". Here the children and Fran are negotiating the design of the nano curriculum within their school (Priestley et al. 2021).

Fran describes how sharing good practice and expertise in digital literacies is extended beyond the school, the children work with the local 'silver surfers' and it is one of their favourite things. They visit on a Wednesday, and as well as having refreshments, work with the older people to improve their skills. She showed a photo of the children doing this.

"...they worked with people in the community and elderly people you'll see there, to kind of upskill them with their digital skills, they tailor the programme for what people were needing to actually learn about. For some of them it was their phones, some of them it was their iPad, some It was a how you'd send an email ... the kids did helpful hints and everything to support their learning as well. The relationships that were built up there, listening and talking between each other, because they had to respond to what their adults were asking them, were incredible".

When the people could not come to the school, because they were engaged with the Men in Sheds project (an age UK project designed to support men who were alone to get together to share new

skills), Fran described how she and some parents took the children out, "and we went down to them at their shed and did some training with them as well, again, according to the needs that they had".

During the pandemic Fran has ensured that the children still had the opportunity to work in small groups, as it is something that she thinks the children have missed. The school has used breakout rooms, as she considers it important for children to still work in groups together. She describes how "they can all be working on the same Power Point ... you know, different parts of the same slide at the same time and see who's doing what and send messages to each other. This can be done remotely from home, and as well as in the class [and] within different classes because I've got, you know folk that might be in in three different classes working together on a project". She feels that it is really important because "I just think it'll be the way for the future". She describes her desire to find creative ways of presenting things online and thinks that it is important to have "laughter, fun and everything included in it, because if you just do straightforward Power Points, they're going to go straight to sleep. They're not going to engage as well. It needs to be something that's kind of motivating so using, for example, Adobe Spark".

The grid below has been used to present the data from the photo elicitation interview with Fran and the aims from the school's curriculum document for Year 6, which is taught in a 3 year cycle (in blue). The overall aim from the Curriculum for Excellence is "As with literacies, numeracy and health and wellbeing, digital literacies should be placed at the heart of all learning, not only the technologies area of the curriculum. Digital literacies outcomes could be met in any/all curriculum areas and so all practitioners can contribute to and reinforce them." (Technologies Experiences & Outcomes CfE). When comparing Fran's practice and the school curriculum document with Burnett *et al.'s*, (2014) suggestion for a Charter for 21<sup>st</sup> Century Literacy Education and the principles that it is based upon it can be seen that the children's cultural resources are recognised within the school. Collaboration is part of everyday practice and children have the opportunity to engage on playful activities.

	Criteria	Evidence
1	Are the social and cultural	• They are recognised, and Fran includes activities such as Minecraft which is a
	resources that children bring to	link between home and school.
	the classroom recognised and	• Connections with the local community through 'silver surfers', she gives
	celebrated?	examples like helping with phones that is not something that is taught at school
		but the knowledge that the children will bring from home.

3	Is there an opportunity for children to diversify the communicative practices that they participate in?  Do children have the opportunity to select, critique and use different modes and media in creative ways for various	<ul> <li>I can explore digital technologies and use what I learn to solve problems and share ideas and thoughts, I can explore, play and communicate using digital technologies safely and securely. I can use digital technologies to explore how to search and find information. I can explore the latest technologies and consider the ways in which they have developed.</li> <li>Within class children are introduced to new practices and apps and have the opportunity to select what they want to use.</li> <li>I explore and discover different ways of representing ideas in imaginative ways. I can explore and experiment digital technologies and use what I learn to support and enhance my learning in different</li> <li>contexts.</li> </ul>
	purposes?	<ul> <li>In class are encouraged to select the apps that they want to use.</li> <li>Creativity is apparent in the transcript an example is the poster competition</li> </ul>
4	Do children have the opportunity to play or improvise within their own projects?	<ul> <li>I enjoy playing with and exploring technologies to discover what they can do and how they can help us.</li> <li>This is evidenced throughout the Case study and transcript, it is an important part of Fran's practice she talks about children having fun working together to create PowerPoints</li> </ul>
5	Do children have the opportunity to work collaboratively? Is there flexibility within this?	<ul> <li>The majority of the practice is collaborative and flexible.</li> <li>The digital leaders working together is a good example.</li> <li>Describes trying to encourage this even through remote teaching and lockdown.</li> </ul>
6	Do children have the opportunity to explore what texts mean to them?	<ul> <li>I can share my thoughts with others to help further develop ideas and solve problems.</li> </ul>
7	Is there an opportunity for children to explore how they position themselves, and how they are positioned by others, on and off line?	<ul> <li>I can extend my knowledge of how to use digital technology to communicate with others and I am aware of ways to keep safe and secure. I can explore online communities demonstrating an understanding of responsible digital behaviour and I'm aware of how to keep myself safe and secure.</li> <li>Use of Twitter and digital leaders working with younger children to consider safety online.</li> </ul>
8	Is there an opportunity to engage critically with texts?	• I can use digital technologies to search, access and retrieve information and are aware that not all of this information will be credible.
9	Is there an opportunity to experiment with digital literacies in a supportive environment?	<ul> <li>Using digital technologies responsibly I can access, retrieve and use information to support, enrich or extend learning in different contexts.</li> <li>Examples throughout of children having the opportunity for this for example the use of Book Creator.</li> </ul>
10	Is there an opportunity to engage with new technological practices?	<ul> <li>I can extend and enhance my knowledge of digital technologies to collect, analyse ideas, relevant information and organise these in an appropriate way.</li> <li>This is encouraged by Fran in class and she ensures that she keeps up to date with this through her examples of CPD and the apps that she mentions including garage band</li> </ul>

#### 4.8 Conclusion

This chapter has narrated the teachers' individual practice both through their own words and the data that I collected in the photo elicitation interviews. It has shown that although the teachers are from different contexts, include a wide age range and have differing amounts of experience in school, they all offer a curriculum to their children that compares to the principles described in Burnett *et al.'s* (2014) work. They can all be seen to be working as curriculum makers and designers, interpreting and working with the national curricula of their countries (Priestley *et al.*, 2021). They have designed their

own curriculum to offer the best learning experiences for their children's needs, going beyond the set curriculum to enhance their learning (Trinter and Hughes, 2021). All speak of engaging children and encouraging collaborative learning, they all integrate digital literacies throughout their practice. The next chapter will present my analysis of the teachers' practice overall, combining the data from all case studies.

# Chapter 5 The Analysis

Having presented the individual cases in the previous chapter, I now present my comparison of the teachers' practice and motivation for teaching digital literacies in relation to the existing definitions and pedagogical principles discussed in Chapter 2. As described in Chapter 3, I have taken both an inductive approach where I make general conclusions from the narratives of the teachers and a deductive approach where I have compared and analysed the teachers' practice against the grids developed from the Burnett *et al.'s* (2014) charter to ascertain which areas are more frequently covered across the cases. The guidelines for teaching and learning with digital literacies developed presented by Dowdall and Burnett *et al.* (2021) will also be compared with the teachers' practice.

# 5.1 Motivations for teaching digital literacies

A key area that I wanted to understand was the teachers' motivations for including digital literacies in their teaching. This section considers what their motivations are, it starts with a consideration of their backgrounds in digital literacies to consider if this influenced them and moves on to contemplate their definitions and why they believe it to be an important part of their pedagogy.

# 5.1.1 Background in digital literacies

The teachers' backgrounds in digital literacies varied greatly, David, Joe and Niamh are fully engaged with many aspects of digital literacies in their personal lives, and it is apparent from their narratives, that this has influenced their practice. This differs to the findings of other studies in which teachers were found to leave their media experiences outside of the classroom, such as Burn *et al.* (2010) who found that the imposition of a strict curriculum and testing framework was one of the main reasons that teachers found it hard to represent their enthusiasm for all aspects of media within their own practice. In a similar, but smaller study, Marsh (2006:169) found that student teachers who were enthusiastic about popular culture were influenced by their class teachers and were "shaped by the norms of the school" and therefore took a passive stance when planning for learning following what the schools traditionally did. It also does not resonate with Burnett's (2011) study in which students who were confident in the use of technology for social media, shopping and communications at home did not reflect this use in their classroom practice. She concluded that this was in part due to how they viewed themselves as teachers and how their practice was shaped by the schools they worked within. In my study, the schools that the teachers work in encourage and support their use of digital literacies

and this allows them to have the pedagogy that they demonstrate. In Joe and Niamh's case their confidence could also be attributed to their A' level in Media (Joe) and degree in Digital Media (Niamh).

In Burnett's (2011) study none of the participants used technology in a playful way, however the majority of the teachers in this study do so and this may contribute to their confidence. However, the fact that Fran and Alex do include it, although they have limited use of digital literacies out of school, would indicate that they use digital literacies as part of their practice because they are driven by a strong sense of what the children need. For instance, Alex talks about technology 'switching children on' and Fran says that she wants to find 'creative ways to engage children in learning'.

# 5.1.2 ITE Training

David, Alex and Niamh's experience of ITE reflects Botturi's (2019) assertion that digital literacies are marginalised in most ITE programmes, although it has to be noted that David and Fran trained several years ago. The pressure on schools and ITE providers to teach measurable skills such as phonics is still a factor today, which has narrowed the curriculum (Gruszczynska *et al.*,2013). This is similar to the experience of Joe who trained more recently. The Schools Direct course that he took would have been based in school with one day a week in university and he feels that the course had limited time spent on digital literacies. This also resonates with the work of Gruszczynska *et al.* (2013) who consider that the curriculum offered by ITE providers has narrowed, and Dowdall and Burnett *et al.* (2021) who consider that high stakes accountability has had a reductive impact on the teaching and assessment of literacies.

It is interesting that at first Mark did not see digital literacies as part of teaching but as an add-on. This could reflect what Madsen, Archard and Thorvaldsen (2018) found in their study that some teachers are reluctant to engage with digital literacies as they did not believe that they were essential to good practice. In Mark's case once he was working within the school his attitude changed, this relates to Marsh's (2006) findings that teachers tend to adapt to the culture of the school they are working in.

Fran's experience of training was at a time when computing was not yet part of the curriculum in Primary Education and computers were not in class. Despite this she is a strong advocate for its integration in the curriculum.

### 5.1.3 Defining digital literacies and skills

When asked for their definition of digital literacies teachers had different views, although they shared some commonalities. Skills are mentioned many times, however when asked about the specific skills they teach, the teachers were quite general in their description such as "teaching them skills about how we do things". The two teachers that were based in Year 1 talked about keyboard skills, and all had an overarching desire to prepare children for the future in terms of digital literacies. However, the discussions of practice in general within the case studies does give further understanding of what they consider digital literacies to be, for example David's use of film and Mark's use of apps to engage children.

Like much of the research considered in in Chapter 2 all the teachers recognised the importance of digital literacies in children's lives (Dezuanni, 2015; Marsh *et al.*, 2017). An example of this is seen in Chapter 4 when Alex describes the importance of teaching children the skills that they need for life, this is expanded upon in section 5.1.4. In all cases the teachers did not necessarily have the words to define digital literacies but the practice they described demonstrated their understanding of the term.

Joe's definition of digital literacies is quite broad, in that he describes it as a way for children to open up learning and to become fluent in their use and understanding of new technology. However, his understanding of the concepts involved can be seen when he describes the importance of it and gives examples of his teaching. Although he does not refer to any specific definition to describe digital literacies, his practice shows his understanding of it. He recognises the fluidity of it (Cannon *et al.*, 2018), and that it is about both skills, communications and applications (Eshet-Alkalai, 2004).

Alex's definition reflects some of what Buckingham (2015) states as he agrees that digital literacies is more than working with particular software or retrieving information. He also recognises that digital literacies are rapidly changing (O'Brien and Scharber 2008; Burnett *et al.* 2014; Mackey, 2019) and

that he needs to teach the children the skills that they will need in the future as literacies and digital literacies in particular are constantly changing. He does not mention any particular app or skills but throughout the conversation film is used a lot, as is presenting information in engaging ways through the use of apps. Some of what Alex describes is reminiscent of Martin (2006:155) whose definition includes "the awareness, attitude and ability of individuals to appropriately use digital tools and facilities". It is interesting that all but one of the teachers do not use the term multimodal as it would be a helpful term to describe what they do.

Like Joe, Niamh has a wide definition of digital literacies, but she particularly mentions creativity, problem solving and playfulness which Dowdall and Burnett *et al.* (2021) include in their guidelines. David is also more focussed on the creative aspect of digital literacies which reflects Burnett *et al.*, (2014:162) who argue that children need to "know how to "select, critique, and use different modes and media and use them creatively, persuasively and for different purposes". Although Black (2009) was not specifically defining digital literacies, she does mention that when writing online, young women were more creative in their writing. This is further supported by Potter (2013) who argues that a key skill that digital literacies bring, and that children need, is the ability to be creative, critical users of new media. Burnett *et al.* (2014) as part of the Charter for Literacy Education further suggests the need for children to be engaged in tasks that allow them to play, which is a key aspect of digital literacies that Niamh considers to be important.

Mark is the only teacher that mentions multimodality, and the examples of practice he describes can be seen to reflect Kress' (2015) description of multimodal texts where meaning is taken from all parts of the ensemble of modes. Although they do not use the specific term all the other teachers' practice demonstrates the use of multimodal texts as well, for example websites in Year 6 and poster design using Google slides. It could be assumed that multimodality is an aspect of digital literacies that they value, the teachers' descriptions of learning activities reflect Dowdall and Burnett *et al.'s* (2021:10) principle "that learners need to be encouraged to make selections about the choice of media and modes that they use". Mark's definition is also similar to Cannon *et al.*'s (2018) definition of digital literacies because he mentions multimodality, and within his case shows evidence that a wide variety of literacies are used in his classroom. Mark's practice includes the consumption and production of animations and film which demonstrates that children can be seen to be using a range of "modalities enabled by digital tools" (O'Brien and Scharber, 2008:66). His definition, along with his description of

his practice, far exceeds what Buckingham (2015) worries is sometimes perceived as a minimal set of skills. It can be seen as a far more dynamic description of literacies than what is described in the national curriculum (2013). He shows an awareness throughout our conversation of the importance of children being confident with digital literacies (Burnett and Merchant, 2018) not only for the future but because it enhances children's learning now (Burnett, 2016).

Fran's definition of digital literacies focusses on communication which goes beyond just producing and consuming texts (Buckingham, 2015) and reflects the definition of digital literacies offered by Eshet-Alalai (2004) in Chapter 2 who describes the advantages of digital communication. It also reflects the aspects of communication that are focussed on by Dowdall and Burnett *et al.* (2021:56) who consider that children "need opportunities to engage with a wide variety of texts if they are to expand their communicative repertoires" Similarly to Mark, within her case study it can be seen that Fran would consider the production and consumption of digital texts to be part of digital literacies (Cannon *et al.*, 2018).

The definitions of digital literacies offered by the teachers are all different and they found it hard to verbalise what it meant to them, despite their practice reflecting the definitions of digital literacies offered in Chapter 2. This emphasises the need for a new definition of digital literacies which Cannon *et al.* (2018) highlight, because the way we communicate is constantly evolving. Equally, O'Brien and Scharber (2008:66) recognise that the definition of digital literacies needs to be a changing construct and that it includes "a range of modalities enabled by digital tools".

# 5.1.3 Why digital literacies are important

Like much of the research considered in Chapter 2, all of the teachers recognise the importance of digital literacies in children's lives (Dezuanni, 2015; Marsh *et al.*, 2017). All case studies show an awareness of the importance of children being confident with digital literacies (Burnett and Merchant, 2018) not only for the future but because it enhances children's learning (Burnett, 2016). They recognise that children are immersed in "media and technology rich environment(s)" (Marsh *et al.*,2017:48) and are aware of the importance of building upon what they already know. Their views reflect the research that is cited in Chapter 2 such as Burnett, 2016; Burnett *et al.* 2014; Potter, 2013

and Marsh *et al.*, 2017 who consider that it is imperative that schools build on the digital skills that children bring to school and provide a curriculum that further develops them.

Much of the thinking shared by the teachers on why teaching digital literacies is so important reflects the principles described in the Charter for Literacy Education proposed by Burnett *et al.* (2014) and further expanded by Burnett and Merchant (2018). The principles were developed as a response to changing communicative practices, now and in the future, and the teachers in the study all emphasise the changing nature of digital practices and the need for children to be confident in their use. Burnett *et al.* (2014) emphasise the importance of children working with new technologies in an authentic way, that allows them to harness the potential of the new technologies that they meet. Examples of this, described in Chapter 4, are Alex's work with Year 6 creating a website and Fran working with her class to engage with the local community passing on their digital skills. David making films about a trip to space and his Year 1 class writing instructions about putting the space suits on is another example of authentic literacy practice. The aim of the Charter was to present principles that could be used as a basis for policy and curriculum development, and although, within England, this has not yet happened, many of the principles can be seen in the teachers' practice as evidenced in the transcripts and grids.

# 5.1.4 Motivating children in purposeful literacy practice

The prime motivator for all of the teachers in the study was to provide meaningful literacy activities that were engaging and purposeful, which is similar to the teachers in the study by Doyle- Jones (2019). This is reminiscent of the Psycholinguistic approach (Goodman,1986) discussed in Chapter 2, which has an emphasis on authentic literacies events that encourage children to write for a purpose, allowing them to have ownership of their work and thereby be motivated to write. More recently the work of Cremin *et al.* (2019) and Young (2020) have advocated the same approach. Within both this approach and the socio-cultural approach (Barton and Hamilton, 2008) teachers are given more freedom to plan meaningful experiences for children.

### 5.2 Planning

# 5.2.1 Freedom within planning leads to teachers as curriculum makers

All of the teachers included in the study indicate that as long as they cover the expectations of the national curriculum (DfE, 2013; CfE, 2010), they have autonomy to decide how to incorporate digital literacies in their classroom. They exercise this freedom within their teaching so that, from an early age, the children they teach have choices as to how to both produce and consume texts. This exemplifies the practice recommended by Burnett *et al.* (2014), who advocate supportive learning environments where children can experiment and improvise with digital literacies practices. An example of this can be seen in Alex's work with Year 6 on websites during the pandemic. When the class could not go out to take photos themselves, he asked them specifically what they wanted him to take photos of for their designs and then the class had the freedom to experiment with the design of their websites.

In addition, the fact that the children have choice over how they research and present their work could lead to the satisfaction and enjoyment that Curwood *et al.* (2013) identified in their study of the benefits young people gained when they had freedom of choice over what they wrote on affinity sites. It is also reminiscent of the freedom of choice that children have at home when engaging with digital literacies (Jones, 2015). Within Burnett *et al.'s* (2014) Charter for Literacy Education, freedom of choice is emphasised, as they advocate improvisation and experimentation within a supportive and safe classroom environment. A further example of choice can be seen in Mark's space study wherein children had "open-ended activities" that allowed learners to "draw on communicative repertoires developed outside of school" (Dowdall and Burnett *et al.,* 2021:56). This can also be seen as Mark having the agency to undertake micro curriculum making and the children in the class negotiating what they do through nano curriculum making (Priestley *et al.* 2021). Although for Fran, Mark and Joe, there is the expectation from senior leaders, that digital literacies are part of all of their teaching they have freedom over how they use it.

The teachers' practices and pedagogies, described in Chapter 4, suggest that they work within the curricula that is set by the governments to, as Priestley et al. (2021) describe, interpret, mediate and negotiate the curriculum to better suit the needs of their class. They go beyond the statutory requirements to create better learning experiences for their classes (Trinter and Hughes, 2021). For example, when Mark and David describe their work on the topic space they can be seen as active

curriculum makers (Hizli- Alkan and Priestley, 2019) understanding what the curriculum expects and acting with agency to decide how to teach it (Trinter and Hughes, 2021). The case studies also demonstrate that the teachers feel confident in designing their own curriculum. De Almeda and Vlana (2022) and Grimmett and Chinnery (2009) argue that having an in-depth understanding of specific subjects, in this case digital literacies, alongside pedagogical understanding gives teachers the confidence to become curriculum makers.

The way that Joe and Mark plan is very similar to the teachers in the study by Doyle-Jones (2019) who used digital literacies to create meaningful learning within their classroom and considered that digital literacies afford children more opportunities to write for a purpose. Although they do not mention all of the steps, they both consider many of the elements that Hutchinson and Woodward (2014) described in their suggestions for planning. They start with the learning goals and then create the learning experiences and activities that would best support the children to achieve them. They also build upon the knowledge that children bring with them from home and integrate it within the curriculum. This is also similar to what Trinter and Hugues, (2021) describe as backward design where teachers firstly identify the learning outcomes; they then consider how students can demonstrate they have learned the objective and they then design learning experiences that align with the first two steps. As curriculum designers the teachers understand what the curriculum expects and then make decisions how to teach it.

Because digital literacies are part of the curriculum in Scotland, Education Scotland provide Continuing Professional Development (CPD) for teachers which is delivered through local authorities and open to all, Fran is able to keep up to date and then disseminate to her colleagues. She uses the aims and objectives within her plans to design learning activities for her children.

As noted in Chapter 4, Niamh plans computing within the school, she integrates digital literacies into her English teaching but believes it is not as prominent as it should be in schools. Gruszczynska *et al.* (2013) note that the narrowing of the curriculum has meant that digital literacies is not as prominent as other subjects which is what Niamh is suggesting. This resonates with Dowdall and Burnett *et al.* (2021) who suggest teachers face challenges in England as a result of high stakes accountability which Burnett and Merchant (2018:17) consider has led to "narrower practices of schooled literacy" and the view of literacy as a "foundational and assessable skill". As SATs in England is focussed on traditional

print-based texts this may mean some teachers feel that they do not have time to include digital literacies within their teaching.

### 5.2.2 Use of digital tools and apps

All the teachers used online forums and websites to enhance their digital literacies teaching in creative ways, even Fran who has training provided by the local authority. Many of the apps mentioned were commonly used by all teachers and they tended to use apps that were free to use on iPads, such as Chatterpix and Puppet Pals. This is similar to the teachers interviewed in Doyle-Jones' (2019) study who made time to find new apps and technology through professional networks, students and peers. Both my study and Doyle-Jones' (2019) study included teachers at the start of their teaching and those towards the end of it. Teachers were not directed to improve their knowledge but considered it valuable to their teaching and spent their own time working on this. Joe and Mark, who work within groups of schools that have iPads throughout, have training provided by the senior management of the schools. David was encouraged by the school leadership to investigate new technology for the school, and by including a studio with a greenscreen it can be seen that the school is supportive of the use of film. Teachers said that if they found appropriate training, schools were willing to pay for them to attend and they would then disseminate this to the rest of the staff.

# 5.3 Pedagogy – Digital literacies are embedded in English teaching

### 5.3.1 Modelling

Several teachers mention modelling within the discussion which has been established as an effective way of teaching literacy as described in Chapter 2 (Smith, 1982; Cremin *et al.*, 2019; Gadd and Parr,2017). They use it to celebrate children's work and demonstrate strategies such as how to edit work or set out a particular genre. This practice varies, with David filming what he wants the children to do and playing it on a loop, to Mark using screens in class to demonstrate editing and celebrate children's work.

# 5.3.2 Risk Taking - the teachers

Although only Alex says it explicitly, being willing to take risks is also an element of teaching digital literacies, and he acknowledges things may go wrong and teachers need to tell the children this and

then try again. The psycholinguistic approach to literacy (Goodman, 1986) and the more recent writing for pleasure approach (Young, 2020), discussed in Chapter2, both advocate children taking risks with their learning. This practice is in contrast to what Burnett et al. (2014) considered current school literacy practices to be, describing them as skills based, in which children have a limited amount of time to produce polished texts, which is a characteristic of the cognitive psychological approach advocated by those such as Gough and Hillinger (1980). It needs to be noted though that risk taking is not the just the domain of digital literacies teaching but more a reflection of a teachers' approach to teaching literacy. Throughout David's narrative it can be argued that he took risks in his development of digital literacies within the school, for example starting a blog and then telling the Head Teacher and by beginning the use of iPads. It is implied that some teachers find this aspect of using technology challenging, and it could be that pressure on staff to meet targets and show children's progress results in them not wishing to take risks in their teaching, as repeating tasks would take extra time out of an already full curriculum (Gruszczynska et al., 2013). This point is specifically made by Niamh who feels that the national curriculum does not permit time for creativity and so teachers may be reluctant to timetable digital literacies into units of work. This resonates with Dowdall and Burnett et al. (2021:8) who state that the "national curriculum for English makes scant reference to digital communication". As described in section 5.2.1 the senior management of the schools that the teachers worked in gave the teachers the freedom to take risks, and as a result the teachers acted as curriculum makers designing the curriculum that suited their classes. Trinter and Hughes (2021) argue that processes like this can only happen in schools where there is strong leadership and professional dialogue between staff which the teachers describe in Chapter 4.

### 5.3.3 Risk Taking – the children

As described in Chapter 2 Burnett *et al.*, (2014:162) advocate that "an empowering literacy education involves a range of activity that includes improvisation and experimentation as well as the production of polished texts". This can be seen clearly in the practice described in Chapter 4 as all teachers provide activities that allow children to experiment and take risks in their digital learning. David specifically mentions that he wants children to take risks and be creative within their text production and the photograph he shares of a film made about space would exemplify this. Another example, included in Chapter 4, is the children's work in the pandemic where many chose to make films to show their literacy learning, for instance the girl in Alex's class who makes a film in response to the book Naughty Bus. Niamh's class making films about the Romans is another example as is Mark encouraging the children to choose how to present their storytelling.

# 5.3.4 Understanding children's prior knowledge and experiences from home

Children's prior knowledge and experiences from home are acknowledged and celebrated within the classroom and these features are associated with the socio-cultural approach to literacies (Marsh, 2010), as well as the psycholinguistic approach advocated by Goodman (1986) and Smith (2006). All teachers appear to recognise the knowledge of digital literacies that pupils bring from home, and there are many examples of teachers using that knowledge to celebrate the children's skills within the classroom (Burnett and Merchant, 2018; Arrow and Finch, 2013). It can be seen in Mark's narrative that he recognises the importance of making connections to the literacy practices that children engage with at home (Marsh *et al.*,2017; Dezuanni, 2015; Mills, 2010), he specifically watches esports so that he can talk to the children about it. The skills that children bring from home became even more apparent during the period of lockdown when children had to work remotely. The effects of the pandemic will be discussed further below.

There are many examples in Chapter 4 of children engaging in literacy practice that may be linked to their home experiences. When Alex teaches the Year 6 children how to construct a website, he is acknowledging that digital media is part of their everyday lives and that they are capable of engaging in complex media activities and, in designing the curriculum at his school, he has taken account of the skills and knowledge that children bring to school. This can be seen as an example of what Dezuanni (2015) argues for, that young children bring to school knowledge and understanding of quite complex media activities and that schools should take greater account of them when planning their curricula. Another example of this is seen when Joe encourages a child to be an expert in the classroom, as he frequently uses digital devices and apps at home. In her use of digital leaders Fran is acknowledging the digital experiences that the children have and she facilities the sharing of this knowledge within the wider community.

Engaging with purposeful activities that are linked to home, is considered by Gadd and Parr (2017) to be an example of effective literacy teaching although their study was not necessarily looking at digital literacies but at a broad approach to teaching literacy. As well as engaging children, Doyle-Jones (2019) found that using a variety of apps strengthened the link between home and school and that children became more absorbed in their literacy tasks, and this is evident in the narratives presented in Chapter 4 where a variety of apps are used. For example, Alex's class using Adobe Spark to create

stories at home and Year 6 using it to present their information on WW2. The use of 'Minecraft' by David in which children build quite complex constructions and Fran's aim to have it installed on all devices also illustrates this. David's use of YouTube can also be seen as a way of including children's home experiences into the classroom as it is a platform that many would engage with at home (Dyosi and Hattingh, 2017).

The teachers in the study are also aware that not all children have equal access to technology at home, during the pandemic lockdown many of the schools loaned technology to families so that they could learn online. In Mark's case the children already use their iPads at home and at school. This is reflective of the suggestion from Burnett (2016) and Marsh (2010) that teachers need to be aware of children's digital literacies practices at home and the technology that is available to them.

### 5.3.5 Curriculum

Within their narratives teachers can be seen to use digital literacies as part of everyday literacy teaching, although it is not in the curriculum for English, for all but Fran, it is an integral part of their teaching. As has been presented in section 5.2, the teachers not only work within the prescribed curriculum but go beyond what is expected acting with agency to create experiences over and above the statutory requirements. For Fran, teaching in Scotland, it is an expectation that teachers act as curriculum makers within their school (Trinter and Hughes, 2021). Their motivation though, is not around teaching skills in digital literacies, but is reflective of their practice in English teaching which focusses on authentic literacy events that are purposeful, allowing the learner to be empowered and building on their language and cultural experiences. An example of this is the blog that David introduced as it allows a far greater audience for the children's work and as he says, helps to make literacy more purposeful for children. This resonates with the practice described by Cremin and Myhill (2011), Cremin and Oliver (2017) and Young (2020) who advocate purposeful and authentic literacies activities for children, similar to the findings of Gadd and Parr (2017) who found that teaching writing was most effective when children were working on purposeful tasks that were linked to their home interests. Another key element of children reading and writing for pleasure, is the opportunity to write as part of a community within a meaningful context, which can be seen in the examples of learning that teachers plan for their children, such as Alex's children creating films in response to text in lockdown and Mark's work with A Christmas Carol, using both film and printed texts. This is discussed further in the section below, 5.3.6.

The narratives also demonstrate that the teachers are aware of the importance of children writing for an audience and that digital literacies allows for wider audiences to be reached. Many of the schools in the study publish work on Facebook, Twitter and Instagram. The examples in Chapter 4 illustrate that online digital activities allow children more opportunities to share their work with a larger audience, for example Alex's work with Year 6 creating websites for the local community, Fran's digital leaders presenting to the school and David's work on blogging with his Year 1 class. This reflects one of the principles described by Dowdall and Burnett (2021) as they consider that digital texts allow children a greater audience for their work. Chamberlain (2017) considers that blogging increases motivation as it inspires children to write and publish work to a larger audience. Publishing to social media sites such as Facebook and Twitter has a similar impact (Dowdall, 2009). The need to provide both a purpose and audience for children is emphasised by many authors (Burnett, 2016; Chamberlain, 2017), as key to motivating children to enjoy writing. Much of the practice described does encourage children to undertake quite complex media activities (Dezuanni, 2015), despite digital literacies not being included in the national curriculum for English (DfE,2013). This is important as it demonstrates that teaching digital literacies is possible within the current curriculum if teachers have the confidence to act with agency designing their own curriculum which goes beyond the statutory one (Hizli- Alkan and Priestley, 2019). Examples of this are Alex's website design when digital literacy skills are taught contextually and Joe who used QR codes to give children access to information on dinosaurs.

Whilst Connolly and Burn (2019) concluded that playing video games increased children's motivation to write in school, this work suggests that using digital literacies to teach English will also motivate and engage children. The work of Parry (2014) would also support this, as she argues that when children feel that their cultural experiences are valued, they are more inclined to participate in class and show their understanding. This then adds to their enjoyment in learning and engagement in class. This supports the work of Marsh, (2000) who found that from a young age children are motivated and excited when there are links between popular culture they engage with at home and the activities they encounter at school. An example of this is from Alex's account of the Year 6 child who used Adobe Spark to make a webpage on World War 2, the writing was of a higher standard than usual, and the teacher had noted the child's enthusiasm for their task. This could be because the skills they bring from home were being recognised (Parry, 2014) or that they were excited by using the app rather than more traditional print-based methods.

All the teachers discussed activities that allow children to both consume and produce texts, and for Mark a balance between the two elements is important. His desire that children become contributors as well as consumers resonates with Mills' (2010) findings that there has been a cultural shift and children are moving from predominately consuming new media to now producing it.

# 5.3.6 Working collaboratively

Throughout Chapter 2 there is an emphasis on the importance of children working collaboratively within digital literacies and this is seen in the case studies presented in Chapter 4. An example of this is Alex's Year 6 group designing websites, working together in groups and as a class and Fran who has children working on joint documents. All teachers emphasise the importance of collaboration within their practice and the significance of the social skills that this develops in children, this is an example of the collaboration that can be seen in home digital literacies practice (Burnett, 2016; Dowdall and Burnett, 2021) being used within school. Collaboration is an aspect of computing that this referred to in the national curriculum (2013) for KS2, acknowledging the opportunities that the internet has for communication and collaboration. Fran's digital leader visits to the silver surfers is an example of how children's knowledge can then be introduced to other parts of the local community working collaboratively with each other and the wider society. Burnett *et al.*'s (2014) Charter for 21<sup>st</sup> Century Literacies emphasises the importance of collaboration explaining that children can work together accessing ideas and texts of others.

Williamson *et al.* (2020) considered that the social participatory nature of the work undertaken in their research motivated the children in their activities, although this research was based on blogging, the evidence presented in the previous chapter, such as Mark's class working on the solar system producing many different types of presentation, would support the idea that children were motivated by the collaborative learning that the teachers describe. Alex acknowledges that children come to school familiar with the use of websites, and like all of the teachers in this study, much of his practice involves children collaborating in text production. This resonates with Burnett's study (2016) in which she emphasises that when children engage in digital literacies at home it is often in collaboration with family or friends and with Marsh *et al.* (2017) who believe that working collaboratively connects to children's digital lives at home. I would also argue that the practice that Alex describes motivates children and provides pleasurable experiences in English which reflects Burnett and Merchant's

(2018:63) description of the pleasure that children gain from engaging "with, through and around digital media".

There is the recognition within the case studies that it is important for children to learn to work collaboratively when creating and consuming texts, which is a characteristic that Burnett *et al.* (2014) identify as being an important aspect of literacy education. Many of the teachers describe giving the children a freedom of choice in how they engage with communicative practices, this allows the children to have playful experiences, work collaboratively and experiment with their learning, which are other principles described by Burnett *et al.*, (2014). Fran considered it so important she ensured that children had this opportunity during remote teaching. Niamh in particular stresses the importance of the social skills that collaborative learning, within digital literacies, brings. She describes children sharing their ideas and working collaboratively to create texts, indeed Dowdall and Burnett's (2021) work acknowledges the need for interpersonal skills when working collaboratively.

# 5.3.7 Digital literacies supporting children who find traditional forms of literacy challenging

All teachers indicated that children who often struggled with literacy were far more motivated when using digital literacies and produced work that allowed them to demonstrate their understanding of texts and storytelling. This resonates with the work of Watts (2007) who describes the engagement and enthusiasm children demonstrate when working with film and Parry *et al.* (2011:7) who identified that "skills, knowledge and understanding seem to be significantly enhanced when analytical and creative work with film is integrated with other learning". Alex describes the Year 6 child being engaged with Adobe Spark and Fran gives an example of a boy using Google Slides to design a poster, she found that he was not only motivated, but able to use digital tools to work quickly and create a 'professional' looking poster. She noted that without digital tools it would have taken him much longer as he struggles with motor control and has messy handwriting, this can be seen as a clear example of what Parry (2014) found, that children were motivated as they could use their digital literacy experiences to engage in lessons which included activities that they were already familiar with and so felt more confident in.

### 5.4 Choice of media texts

### 5.4.1 Use of film

All teachers within the study used film extensively within their classroom practice, although only Niamh focussed on film as a medium in that she gives examples of studying how films are made and constructed whereas other teachers give examples of making or watching films. This does not mean that other classes do not study it as a genre, but it did not come up in the conversation with the other teachers.

Film is used in a multitude of ways, one of which is just as a paper-based text would be, to engage children in a story, for example Mark and 'A Christmas Carol', another is as a medium for children to tell stories. Goodwyn (2004) noted that teachers use film as part of their everyday English teaching and that its use had increased alongside the rapid increase in digital technology in the classroom. For David it was the start of his use of digital literacies in the classroom, along with Mark, he describes using YouTube in clips in the classroom, which is a site that Dyosi and Hattingh (2017) maintain children are familiar with and where incidental learning takes place. The use of film in the classroom reflects the work of Marsh (2010) who recognises that digital texts are some of the earliest that children may encounter and Parry (2013) who found that children have access to a wide variety of film and were able to discuss them and express preferences from an early age. In her study Parry (2013) noted that children drew upon their extensive knowledge of film and film narratives when creating their own films in class. This is true of the film that David showed which a father and son made a film during lockdown, using the music from 'Jaws' and the movement of the hair clippers towards an unsuspecting child. When Alex wants to introduce a new story to the class, he will often film it so that they can watch it many times and become familiar with it, the frequent use of film has meant that his class are familiar with its use. Alex found that using film to tell stories allowed children to show their understanding of the nature of both print based and digital texts, for example a take on the story of the 'Naughty Bus' (Jan Oke, 2005).

There are examples of teachers starting to use green screen to enable children to tell their stories through film as well as the use of apps such as 'Puppet Pals" and Toontastic, to make animations. The use of film within class, alongside the knowledge that children bring to school, meant that during the pandemic children often opted to film to record their learning at home. Mark's example of the 'Hair Clippers' demonstrates children's knowledge of popular culture and film being integrated into their

literacies learning. This practice resonates with work by Watts (2007) who found that children are not passive viewers of film but are active and engaged in discourse with others when viewing, she argues that using film is a good way to motivate children. Parry *et al.* (2011) had similar findings and found that skills, knowledge and understanding are enhanced when film is integrated into learning, children's textual meaning making was improved as was their ability to making inferences when working with printed texts. They found that working with animations increased the children's creative repertoires when producing their own writing.

The work described by the teachers reflects what Parry (2014) argues about popular culture and film, that if children are given the opportunity, they can demonstrate the rich understanding of narrative and apply it to their new texts and their own text production. Parry *et al.* (2011:7) found that the use of film motivated children and improves the creative aspect of children's learning in other curriculum areas as it helped them to "understand how elements of composition and stylistic devices combine in contributing to meaning". An example that illustrates this from the teachers' narratives described in Chapter 4 is when Niamh describes the improvement in writing when children used film as a stimulus before their fairground writing. Niamh found that their writing had more description and that they could retain their ideas when writing.

Working with film gives children a greater understanding and experience of working with multimodal texts, they are able to combine modes to create the messages in the best way they can (Kress, 1997). Kress (2015) considers that the use of multimodal texts gives children more agency over their work as the choice of each mode can give different insight into the meanings that they are making. The practice described by the teachers offers examples of children's experience in creating films and the choice that they have within this area.

Chapter 4 describes children making both animations with apps and the use of iPads and green screen to make films. For instance, Niamh's description where film can be seen to be an effective method of engaging children in literacy and enriching their work. By encouraging children to make animations first and record their stories, she is teaching children to use different modes within their work (Kress, 2015) as well as reflecting the aims of the national curriculum (DfE,2013:29) that children "draft and write by composing and rehearsing sentences orally (including dialogue), progressively building a varied and rich vocabulary and an increasing range of sentence structures". When David's class made

films of themselves as spacemen the writing that came from it had a purpose and an audience, for example writing letters to their parents about their trip.

Wohlwend and Buchholz (2014) have commented on the rich stories that children produce when making films and this is interconnected to motivation, as they are fully engaged in what they do and draw on their knowledge and understanding of film that they bring to school. Teachers also used film as a way to model as part of their literacy teaching, or as a prompt for writing such as Alex recording films of himself as a character from history or a story to motivate the children as part of 'Mantle of the Expert', again using film to engage and focus children.

Several teachers emphasised that by using film to tell stories, mainly during the pandemic lockdown, children who find English challenging have been able to show their true understanding and ability in English without having to write. From our conversations it can be seen that teachers value the insight it gave them into the children's literacy understanding, but it is hard to know whether teachers see this as a valuable literacy practice in its own right, or as a beneficial side effect of children working at home. An example of this is Alex's description of how two children demonstrated their true understanding of story through the use of digital literacies, one made the recording based on 'Naughty Bus' and the other recorded his story whilst videoing his story map. This reflects the study by Parry (2013) as she found that children who struggle to express their complex multimodal ideas in written form are able to do so in their moving image productions. The process of making films to tell stories shifted Alex's perception of children's literacy ability which also reflects the findings from Chamberlain et al. (2020) who found that in the COVID -19 lockdown children used a greater variety of multimodal texts to show their literacies learning. Within Alex's case study it appears that he does not make the connection between the telling of the story and the children's writing ability, but he does recognise that the children's literacy skills have improved as he mentions the use of adjectives and connectives within the work. The connections between telling stories aloud and an improvement in children's writing ability has been noted by many authors including Wyse (2018) and Young (2020).

# **5.4.2** Preparing children for online identities

Within most cases teachers are conscious of the need to introduce children to social media and how they may portray themselves online. This can be seen both with David and the start of blogging in Year

1 and with Fran's digital leaders who, with agreement from her, can use Twitter. Mark's class interact in social groups online and he emphasises the need to consider how they portray themselves. Several of the schools in the study use Facebook, Twitter and Instagram to share and celebrate children's work. Potter (2013) argues that this should be part of children's entitlement as children need to develop ways to create, consider and manage their online environment, this also resonates with the work of Burnett *et al.* (2014) and Burnett and Merchant (2018) who suggest that children need to know and understand how to present and conduct themselves online as well as understand how others may portray themselves. This also shows that the teachers recognise the cultural element of digital literacies and the importance of safeguarding. Fran and Joe both mention online safety in their discussions and Alex's medium-term plan for the school includes it, this reflects some of the principles advocated by Dowdall and Burnett *et al.* (2021:10) who consider that children need to be able to "navigate the internet and other digital content with safety and discernment".

#### 5.5 Assessment

The teachers were not asked specifically about assessment because I wanted to focus on the learning experiences they offered their class, and the photographs did not prompt discussion around this. When discussing their practice, the main emphasis was on literacy practice in general and assessment was rarely mentioned. In hindsight I could have prompted the teachers to talk about this. The planning that was scrutinised for digital literacies was all found within the computing curriculum, with the exception of Fran, who is based in Scotland where digital literacies are included within the literacy curriculum. Mark describes his school's quandary, to be classed as working in greater depth in Year 6 SATs Assessments children have to demonstrate cursive handwriting however in Year 6 the children use iPads for all work. This means that the children sometimes compose their work online and then have to copy it out into books in order to practice handwriting. As discussed in Chapter 2 the national curriculum (DfE, 2013) still places emphasis on fluent handwriting and describes the way that letters should be joined, this does cause challenges for schools that predominantly use technology as they have to decide where handwriting can be taught contextually in order for children to reach the highest levels they can in national tests. As discussed in Chapter 2 Dowdall and Burnett et al. (2021) found in their case studies that teachers assessed children's progress against existing frameworks and although it is not said within the transcripts, the planning that is presented in some of the grids demonstrates that this could be the case with teachers in this study. For example, Joe's grid where year 4 are expected to use a growing range of apps and programmes to create complex digital content including eBooks, animations and films.

# 5.6 Digital literacies in the pandemic

From across all case studies two themes emerged around the pandemic, firstly teachers believed that the move to online learning, whether live or pre-recorded, had made colleagues more confident in using technology. This is similar to the findings of Misirli and Ergulec, (2021) who found that teachers had to quickly gain online skills in order to be able to teach remotely in the pandemic. This was especially important in the schools in which teachers were only encouraged to use digital literacies rather than expected to include it. It was, however, also true in Fran's school where, although it was part of the curriculum, not all teachers were fully confident in its use. The teachers in this study commented that they felt that this increased use of technology within school will mean that teachers are more familiar with it and therefore may be more likely to engage with digital literacies when normal practice resumes. As Alex says in Chapter 4 lockdown has helped "raise the bar" in terms of teachers developing skills in technology as "everyone is at home producing videos on YouTube and we've spoken to everyone about using Adobe Video, so I think when they come back, we will have a staff group with a stronger skill set than before".

The second theme was around children's use of digital literacies. Many children were given more freedom as to how they could complete their literacy learning and many chose film to tell stories, as discussed above this reflects the move to "new and hybrid literacies practices appropriated and recontextualised within new communicative spaces" that Chamberlain *et al.*, (2020:243) found. Their study investigated how some schools in the United States had reacted to online learning and found that as the pandemic progressed children favoured film to produce work rather than written texts. The research found, similarly to my study, that using literacy in many forms helped the connections between home and school to be even stronger. The fact that children began to use film at home to show their literacy learning could be due to the fact that all teachers within this study use film and the knowledge of film that children bring to school as a key aspect of their teaching (Parry, 2014; Parry, 2011; Watts, 2017). Alex can be seen to encourage it as a way of making home learning more interesting.

During the pandemic, although work was well planned, it did not reflect what the curriculum would be like in normal circumstances, it was, as Hodges *et al.* (2021) describe, set up to give children access to learning and not recreate what would happen in the classroom. This meant that the teachers within this study, who were already familiar with interpreting and recontextualising the curriculum (Ball *et al.*, 2012), had the confidence to continue as active curriculum makers within their schools. Seesaw

had been introduced by a number of schools to share work and planning and several teachers considered that this made closer links between home and school as parents could see what work the children were doing. This was true of the research in Chamberlain's (2020) study where schools used Seesaw not only for literacy learning but also for communicating with parents. Making closer links between home and school is an important part of the socio-cultural approach to literacies, and although studies such as Marsh (2010) consider the importance of schools incorporating children's home learning into school, it is also important for parents to know what their children are working on in school and if this reflects home literacies the links will be stronger.

Fran tried to ensure a sense of community continued during remote learning by getting the children to work in small groups online, she felt that this was an area that they missed out on by not being in class. This reflects what David felt, that although the children had access to learning during lockdown, they did miss the interactivity that children are used to in the classroom. A lack of interactivity was a concern that parents voiced in the study by Misirli and Ergulec (2021), although parents did feel that their children's skills in digital socialisation were improved during lockdown. Joe's description of scavenger hunts that allowed children to interact with each other at home and at school is another example of the attempts teachers made to maintain the sense of community within their classes. The importance of collaboration within the teachers' practice is discussed above and can be seen again here, that even in the most challenging of circumstances teachers tried to find ways to facilitate children learning together.

# 5.7 Presentation and analysis against the Burnett et al. (2014) Charter for Literacy Education

I had originally planned to go into school to observe teachers' digital literacies practice but could not because of the restrictions put in place by the pandemic. I had intended to use Burnett *et al.*'s (2014) Charter for Literacy Education as a framework for analysing practice. In place of this I have considered the information gleaned from transcripts alongside the digital literacy plans sent to me by four of the teachers to both present data and compare the teachers' practice in this study to the criteria based on the work of Burnett *et al.* (2014). This allowed me to see whether the teachers' pedagogy reflected the curriculum for the 21<sup>st</sup> century that Burnett *et al.* (2014) had designed. Niamh and Mark did not send plans so theirs were based on the transcript alone. It is apparent from Fran's responses that the Scottish curriculum fits well into the grid as most areas are covered. From a consideration of the grids,

it can be seen that despite coming from different ages, training and backgrounds all of the teachers' practice reflected the principles described.

It must be acknowledged that this analysis is based upon the transcripts and plans so areas that I cannot see evidence of may be present but were not apparent in this research.

	Criteria	Analysis of cases
1	Are the social and cultural resources that children bring to the classroom recognised and celebrated?	This is apparent in all of the cases often through the use of film the teachers describe the ways children are used as experts within the class. Apps such as Minecraft are being introduced which is a popular app that children use at home. The use of film within the pandemic as a choice of how to tell stories and complete set work has strengthened the links between home and school.
2	Is there an opportunity for children to diversify the communicative practices that they participate in?	There are many examples of this within all grids, the teachers describe the ways children are encouraged to experiment with the apps that they use and for most activities have a freedom of choice over what they use. In many examples teachers explain that children also have the choice to use more traditional methods as a part of their work as well.
3	Do children have the opportunity to select, critique and use different modes and media in creative ways for various purposes?	Creativity is mentioned in several transcripts and the teachers describe the ways children have many opportunities to select and use different modes. Throughout the analysis and teachers' description it can be seen that children use digital literacies for many purposes. In fact, many teachers talk about purposeful literacies activities. Within this data there is no evidence of children critiquing the modes that they use, but conversations with the children may reveal why the choose the apps that they do.
4	Do children have the opportunity to play or improvise within their own projects?	There are examples in all grids of teachers describing that children having the opportunity to play and improvise. This seems to have increased during lockdown when children had freedom at home to produce their work. All teachers gave examples of children having playful experiences within class, much of this evolves around the use of film, which could involve making animations with an app or using greenscreen to make films.
5	Do children have the opportunity to work collaboratively? Is there flexibility within this?	The majority of the learning described by the teachers involved children working collaboratively, this can be seen throughout the data and analysis. All teachers considered it to be an important part of their practice. This aspect also links to criteria 1 as working collaboratively often reflects the digital lives of children at home.
6	Do children have the opportunity to explore what texts mean to them?	The children's use of film within the pandemic could imply that they were exploring what texts mean to them, but no teachers mentioned this as part of their practice. It is an objective within the curriculum that Fran works within as children are expected to 'share their thoughts with others to help develop ideas'.
7	Is there an opportunity for children to explore how they position themselves, and how they are positioned by others, on and off line?	This is an area that is evolving, Fran's grid shows the CfE expectations of this and it is apparent in the transcript with regard to digital leaders and using Twitter. Alex's school also has elements of this throughout the curriculum. Other schools have blogs, use Twitter and include discussions around posting and internet safety which gives the children some opportunities to explore this.
8	Is there an opportunity to engage critically with texts?	There are some examples of this given by the teachers with children discussing films that they have seen online. Alex gives an example of Year 6 children looking at websites with a critical stance before they design their own. Niamh considers that digital literacy leads to critical thinking. There is some discussion by Joe of looking at digital media sites.

9	Is there an opportunity to experiment with digital literacies in a supportive environment?	Teachers describe many examples of this throughout all grids, the children and teachers all have freedom to plan and learn within a supportive environment. Mark gives clear examples of how children within his class can choose what they would like to do.	
10	Is there an opportunity to engage with new technological practices?	All grids have examples of this and teachers have described that it is an important part of their practice. As discussed above they describe how they all look for ways to improve their practice and knowledge of apps. David's case study in particular, and his journey through digital literacies within his school best exemplifies this.	

# 5.8 The guidelines for teaching and learning with digital literacies (Dowdall and Burnett *et al.*, 2021:56)

The guidelines presented below were published towards the end of this study, but as they were specifically designed to support classroom teachers, an analysis of the teachers' practice against them offered further insight into the practice described in this study.

1	Authentic learning opportunities involve motivating, meaningful activities that matter to learners.	This is a theme throughout the case studies, motivation is mentioned many times and the learning experiences described are meaningful. Without talking to children, it is hard to know if the activities are meaningful, but they are contextualised in most examples, for instance David's Year 1 children recording instructions of how to get dressed if you are an astronaut. Mark's class making video diaries as part of their space unit and Fran's digital leaders creating presentations on internet safety.
2	Play and playfulness provide rich opportunities for experimenting and exploring different media.	Playfulness is mentioned by Niamh and all teachers describe activities that allow children to explore and experiment with digital texts. An example of this is Mark's class who when studying the local docks became interested in tattoos and followed this focus rather than what was originally planned.
3	Teaching needs to respond flexibly to learners needs and strengths.	There are examples of this throughout the transcripts, Mark's example above shows how children can follow their interests, other cases show children having choice within their learning. Teachers have highlighted that digital literacy allow children who find some aspects of English challenging, an opportunity to demonstrate their true ability.
4	Open-ended activities create space for learners to draw on communicative repertoires developed outside school.	There are open-ended activities mentioned within the cases: Joe's initial exploration of dinosaurs and Fran's work on posters both exemplify this. Joe's discussion of using a boy to demonstrate 'Scratch' because of his knowledge of gaming from home is an example, as are the films produced during lockdown.
5	Children need opportunities to engage with a wide variety of texts if they are to expand their communicative repertoires.	Within this study children can be seen to be using both paper-based texts and film texts and producing and consuming their own texts. All teachers give examples of CPD and research that they have undertaken to ensure that they have up-to-date technology and apps in their classrooms. Niamh talks about children using high quality texts and Mark's class watched/read different versions of A Christmas Carol.
6	Readership and authorship involve making choices about what to read and write/ create.	Choice is a theme that is apparent in all case studies, Joe and Mark give examples of children having choice over whether to use paper or digital texts. Mark's class can choose how to show their learning at the end of the topic, deciding which apps to use. Although not said specifically, David's children working with film have choice in how they create their films.
7	Print and digital literacies support one another within communicative repertoires.	Niamh specifically mentions working with the text 'The Arrival' and using this to work with stop frame animation, Mark has used both paper-based and digital texts of 'A Christmas Carol' to motivate children.

8	Working on screen can promote collaboration which presents rich learning opportunities.	As discussed above, collaboration is a key theme that is described in all case studies. All teachers describe learning where children are working together, David when children make digital puppet show, Alex when Year 6 are creating websites.
9	Unlike handwritten texts, digital texts can be easily changed, offering increased opportunities for refinement and remix	Although this is not mentioned specifically all of the digital literacies that is described in the cases would involve the opportunity to refine and remix texts.
10	Digital texts can be shared with a wider audience than print based forms.	Most of the schools in the study use social media to publish children's work, David started the schools blog and considers it gives a wider audience to children's work. Joe, Fran and Mark all publish work on Twitter. During lockdown sharing work digitally became even more important and this too enabled and engaged wider audiences.

# 5.9 Conclusion

This chapter has considered the multi-case study as a whole, examining the teacher's description of the practice and examples of their plans in relation to the existing definitions and pedagogical principles discussed in Chapter 2. Although this is a small-scale study, it gives a unique insight into how these six teachers include digital literacies within their everyday practice. Despite having different backgrounds, definitions of digital literacies and experiences, the opportunities that they offer their children are similar. Their practice is representative of what both Burnett *et al.* (2014) and Dowdall and Burnett *et al.* (2021) offer as a curriculum suitable for the 21<sup>st</sup> century.

This study illustrates that the teachers involved, who all included digital literacies in their literacy teaching, did so as an integral part of their teaching. They had the confidence to act with agency, creating curricula beyond that which was statutory. This meant that digital literacies were embedded because they enhanced their teaching of literacy and engaged the children in their learning. It was used because it provided purposeful activities in a context and at times offered a greater audience for children's work. Digital literacy skills appeared to be a by-product of the everyday use of technology within literacy lessons. Indeed, from the scrutiny of plans it seems that skills in digital literacy are taught in computing, except for Fran in Scotland where skills are also embedded in the literacy curriculum.

The next chapter will consider the strengths and weaknesses of this research and summarise my claims for originality. The answers to my research questions will be summarised and the implications the

results have for me as a professional considered. I will make recommendations as to how the practice discussed could be replicated in other classrooms.

# Chapter 6 The Conclusion

### **6.1 Introduction**

In this chapter I will consider the strengths and weaknesses of this work and establish my claims for originality. I will go on to summarise what teachers of digital literacies do, and what implications this has for me when teaching ITE students and for any work I will publish. Because the work was situated in the middle of the COVID 19 pandemic I will also discuss my findings of what happened in classrooms and to literacy practice at this time. Despite this being a small-scale study, I will make recommendations as to how the practice discussed could be replicated in other classrooms.

The aim of this study was to understand how and why teachers use digital literacies as part of their teaching. A social constructivist approach was taken as I wanted to understand how the teachers teach digital literacies within their settings. I was interested in their views of where they work and their pedagogy within that space (Sikes, 2004). My epistemological beliefs also influenced the design of the study as I consider knowledge as subjective and temporal, and I wanted an understanding of perspectives of the teachers that I spoke to. Qualitative data collection methods were used, and an interpretivist approach was taken throughout, as a consequence the analysis and conclusion contain some subjectivity but have allowed me to gain an understanding of the approaches that the teachers take to digital literacies.

# 6.2 Strengths and weaknesses of the study

I undertook six case studies and had intended to use multiple data collection methods: photoelicitation, teachers' own writing, observations of practice in class and sampling of children's work. The COVID 19 pandemic and restrictions on face-to-face research, alongside the lockdown, meant that I conducted online photo-elicitation interviews, looked at the medium-term plans of some teachers and studied the teachers' own writing.

Although there were fewer methods of data collection, the data I did collect were rich and plentiful. I agree with Gaudet and Robert (2018) that the online interviews added a certain level of intimacy to the discussions. Rather than being in school, teachers were in their own homes away from distractions. I interviewed the teachers during February half term 2021 when they were in the middle of a

nationwide lockdown with only the children of key workers in school and where they were teaching both online and face-to face in school.

I had hoped that using photo-elicitation would provide examples of teachers' practice, but this was not always the case and some of the photos were randomly chosen in a similar way to Moss's study (2001). Despite this, the photos were a very effective way of understanding the teachers' practice, all but one teacher had pre-selected the photographs and used them to tell the story of their teaching. Interestingly, David used the photos to tell the story of how he developed his own and the school's practice in digital literacies. I consider that the use of photos and their place in the discussion allowed the teachers to think carefully about what they do in school. As discussed in Chapter 3, McLaughlin and Coleman-Fountain (2018) found that visual methods were a good way to engage younger people and I found this to be true of the digital literacy teachers in that they use photographs as part of their everyday practice and as a way of recording children's work.

The pandemic, and subsequent lockdown meant that teachers had not been with their full class for at least two months, so they had to draw on photographs from the autumn term or from the previous academic year. This did not affect the quality of the interviews as they still exemplified practice and allowed teachers to discuss their pedagogy. After discussing the photos, I asked further questions to try to understand teachers' individual pedagogies. Whilst the photographs, and in some cases film clips, demonstrated the pedagogy of the teachers they did not lend themselves to the type of analysis of photos that I had initially anticipated as they did not exemplify teachers' practice in any more detail than the interviews had done.

Additional detail was added by the teachers who wrote their own commentary of what they considered to be their best practice, and this was added to their narrative. The medium-term plans provided by some, gave an insight to how digital literacy was planned throughout the school, but it needs to be acknowledged that with the exception of Fran, who teaches in Scotland where digital literacy is embedded in all parts of the curriculum, the activities were all located in the computing plans for the school.

To a certain extent the restrictions placed on the study by the COVID pandemic, and subsequent effects of lockdown had both a positive and negative affect on this study. The timing of the data collection allowed me some understanding of what was happening in school at this time, and how children's literacy work and teachers' practice had adapted as a result of the restrictions. This has added another dimension to this work. However, it must be acknowledged that if I had been in school at this time observing teachers' practice and children working, I may have had more varied examples of practice and would have been able to analyse practice against the Burnett *et al.*'s (2014) grid and Dowdall and Burnett *et al.*s' (2021) guidelines. The grids enabled effective reflection on responses to the interview, teachers' own reflections and planning.

After the data were collected and analysed, and whilst talking to colleagues about digital literacies, I realised that there was no mention in this study of the assessment of digital literacy skills. When the teachers discuss the skills that they want the children to achieve they tend to be around literacy practice in general. If I were to undertake a similar study I would ensure that there were specific questions around the assessment of digital literacy skills, as I think that this is an area that teachers may find challenging in literacy as digital literacies is not featured in the English curriculum.

# 6.3 Claim for originality

This work can claim originality for a number of reasons: firstly, it shows that the teachers within the study are motivated to integrate digital literacy within their teaching to engage their classes and to provide a rich curriculum that goes beyond the statutory one. They do this by acting as curriculum makers and designers. They address the national curriculum outcomes as expected by their schools and, as Priestley *et al.* (2021) describe, find ways around working within a prescriptive curriculum. There are examples throughout Chapter 4 of teachers using their professional belief and knowledge to interpret the curriculum to make the curriculum work for the children they are teaching. This work illustrates that the teachers can embed digital literacies within their teaching by becoming active curriculum designers, as they know and understand the needs of their learners (Trinter and Hughes, 2021). The study shows that this experience helped them during the pandemic when their skills as curriculum designers meant that they were confident in working with the children online. Secondly, the presentation of the teacher's pedagogy against the Charter for 21<sup>st</sup> Century Literacy has never been done before. Due to the timing of the study, an unexpected original finding is the insight it

provides into what was happening in these six schools during the Pandemic. The study was conducted at a very unusual time in the world which no teachers or schools were prepared for.

The study found that, despite having different cultural and educational experiences of digital literacies, as well as teaching in different contexts and regions, all of the teachers included in the study considered digital literacies as a key part of their pedagogy. This is discussed more fully below.

# 6.3 Summary of key findings

At the beginning of this section, it needs to be acknowledged that this is a small-scale study involving six teachers, so as Yin (2018) notes that these cases will not be representative of other cases although they have allowed me to understand what these particular teachers do and that in turn has answered my key research questions which are discussed below. The discussion below is a summary of the information which is presented in Chapter 5 sculpted to answer my research questions.

# 6.3.1 What do digital literacy practices look like in the classroom?

# 6.3.1.2 Digital literacies are embedded in English teaching

All of the teachers embedded digital literacies within their English teaching, their contemporary literacy practices were focussed upon engaging children and ensuring that they have meaningful, purposeful literacy learning. They do this by being active curriculum makers using their experience and knowledge to create a micro curriculum that fits the school that they are in (Priestley, 2021). They use digital literacies to provide wider audiences for the children they teach which means that the examples discussed are reflective of practice in English teaching that is recommended by research (Cremin and Myhill ,2011; Cremin and Oliver,2017; Gadd and Parr,2017; Young, 2020). As exemplified by Alex, whose Year 6 children create websites for local businesses, the teachers all create communities of writers who learn literacy within meaningful contexts.

The practice described in earlier chapters demonstrates that the teachers felt that children who find traditional forms of reading and writing challenging, could engage more readily with literacy activities and demonstrate their understanding of activities such as storytelling. This has been accomplished through the use of film to either record their stories through photographs, or to tell their stories orally. Children in the classes are far more motivated when using digital literacies (Parry, 2011; Parry, 2014;

Watts, 2007) and the teachers build on this in their classrooms. This practice reflects the effective teaching described by Gadd and Parr (2017) and is reminiscent of the psycholinguistic approach advocated by Goodman (1986) and the whole language approach described by Hall (2010).

### 6.3.1.3 Film is used extensively

All teachers use film in their teaching and for some it was the route into digital literacies. Film is used in a variety of ways, as a text to prompt writing such as Mark and 'A Christmas Carol' and Niamh's class writing about fairgrounds. Studies by Parry *et al.* (2011) and Watts (2007) found that children are actively engaged when viewing film and that their knowledge and understanding of texts are enhanced when creative work is integrated within other learning. Children are encouraged to make films themselves and the teachers interviewed use various apps to enable this, the films made vary from animation to real life using green screen. This use of film, and the children's confidence when using it, has meant that when children were learning at home during the pandemic, they often chose to use film as a vehicle for their storytelling, this will be discussed more in the section 6.6 on the effects of the pandemic. Teachers also use film to model for children so that they have support when they are working independently, David records himself modelling what he wants the children to do and plays it on a loop so that they can refer to it if they forget what they need to do or need help. Alex records himself in character at the start of a unit of work to engage the children and motivate them in their learning, in one he filmed himself as an explorer with a jungle background.

# 6.3.1.4 There is freedom of choice for teachers and children

Teachers in the study all had a freedom of choice over how they taught English, as long as they covered the objectives that they needed to. In some classes there were topics and themes that were expected to be taught, but how digital literacies were taught within this was up to the teachers. They used their knowledge of digital literacies to act as micro curriculum designers planning lessons that provided meaningful activities for their class (Priestley *et al.* 2021). This is a positive thing for these particular teachers, who are confident in digital literacies but for their colleagues who are not (if they are not in schools where iPads are used all day) it may be that they choose not to use it.

The freedom of choice in planning was true for all teachers whether they had iPads in their classrooms or not. Chapter 4 describes many examples of the teachers extending this freedom of choice to the

children in their class, the children can select the digital tools that are most appropriate for their work and those that they enjoy working with. This practice reflects the choice that children may have at home as well as building upon the skills and interests that they bring from home Marsh *et al.*,2017; Burnett and Merchant, 2018). The approach taken to literacy teaching described above is reminiscent of both the Psycholinguistic approach as described by Hall (2010), where children have a choice in how they do their work, and in Mark's case a complete choice of the genre and technology they use, and the socio-cultural approach to literacy where children's home practices are recognised and celebrated in school (Street, 2003). This demonstrates that it is important to root digital literacies in the broader argument that literacies are what people do rather than a set of discrete skills that can be taught and then tested, which is how current English practice has been described by authors including Burnett *et al.* (2014) and Bulman *et al.* (2021). Although Goodman (1986), a psycholinguist, was not describing digital literacies he advocated children writing for a purpose and allowing them to have ownership of their work which the description of the pedagogy above illustrates.

# 6.3.1.5 Working collaboratively is encouraged

In all classes collaborative learning was encouraged, children regularly worked together within digital literacies. Teachers felt that this was important as it developed the children's skills in all areas including the social and emotional aspects of digital literacies (Eshet-Alalai, 2004, Martin, 2006, Potter and McDougall, 2017). In the majority of the photographs that the teachers shared, children could be seen working together and when describing practice within their classes the activities were predominantly collaborative.

### 6.3.1.6 Children's digital literacy skills are built upon

As discussed in Chapter 5, all cases illustrate that the knowledge and skills (in digital literacies) that children bring to school are built upon and celebrated. Although this is not said specifically by teachers it can be seen in their practice, for example Joe who encourages a child who struggles with traditional forms of literacy to help fellow class members with digital literacies because he has lots of experience of technology at home. This is similar to Fran who describes a boy in her class designing a poster which demonstrated literacy skills that he would find challenging to do in a more traditional way.

# 6.3.1.7 Teachers actively search for CPD and apps

All teachers, even those in schools where digital literacy CPD is part of the ethos, used internet sources to search for training and new ideas to engage their children. This is reflective of their pedagogy in general, from the case studies it can be seen that they strive to find learning experiences that engage their classes. The websites they mention are often created by teachers or ex teachers who have a specialism in this area. If the teachers were the computing lead within the school, they then disseminated this knowledge amongst their colleagues. Joe's school was part of a confederation where digital literacies are a key focus and training is provided by an overall digital lead and then digital leaders within the school. This is also true of Fran who teaches in Scotland: she receives training from the local digital leaders, she also finds additional training online and then disseminates this within her school. In her case she has children who are digital leaders in the school who work with younger children. Having children who are digital leaders in two of the schools also works well as it helps to ensure that their skills are shared with others and their own skills are recognised within the school.

# 6.3.2 How did the teachers define digital literacies?

As discussed in Chapter 4 and 5 there was no consensus over the meaning of 'digital literacies' although from their narratives, and the planning that was available, all aspects of the terms discussed in Chapter 2 were apparent. There were some specific mentions of skills including keyboard skills, communication is included as is the use of animations and film. When looking at the motivations to teach digital literacies, discussed below, playfulness and creativity are highlighted, and multimodality is mentioned by two of the teachers. The work described in this study demonstrates the digital literacies practice of the teachers, however because digital literacies is not part of the national curriculum for English (DfE, 2013) it is often challenging for teachers to articulate how the learning in this area is achieved.

# 6.3.3 What were the teachers' motivations for teaching digital literacies?

All of the teachers were motivated to teach digital literacies because they realise the importance of it in children's current and future lives. The fact that the skills needed to engage fully with available technology are widening and that children are born into a digital world are mentioned. Teachers recognise the importance of preparing children for jobs that are not yet created and that being confident in digital literacies is important for engaging with the world in everyday life. The teachers recognise that many children come to school already confident in the use of digital literacies and the

significance of recognising this in class is acknowledged. Integrating digital literacies into classroom practice is also considered to encourage creativity and problem solving within the class. Niamh in particular believes that it should be at the forefront of the curriculum. Fran emphasises the importance of digital literacies in being able to communicate effectively. These motivations reflect the aims of The Charter for Literacy Education that Burnett *et al.* (2014) describe and the acknowledgement of the skills that children bring to school (Marsh *et al.*, 2017).

# 6.4 What did the Burnett et al. (2014) grids illustrate about classroom practice?

Despite the fact that the grid could not be used to observe the teachers in class, it proved a useful way to present and consider the pedagogy that the teachers discussed. Some of the criteria were mentioned specifically but others could be inferred from the teachers' narratives. All cases showed that children had the opportunity to expand the communicative practices that they used, and their social and cultural resources were recognised in the classroom. The freedom to play and improvise with digital projects was described by all teachers. Collaboration was a key element of all practice as was the acknowledgement of the need for children to be up to date with new technological practices. This showed that although the teachers mention skills throughout their narratives, their understanding and use of digital literacies goes beyond this to encompass the social and playful opportunities it offers.

The criterion that was least apparent was children having the opportunity to explore what texts meant to them, this possibly does happen more and may have been more obvious if observations had been permitted. The children's use of film during the pandemic could show the importance of this particular medium to them. Children having the opportunity to explore how they position themselves, and how they are positioned by others, on and offline was developing in some schools but in some cases it tended to be around the issue of being safe online rather than seeing an online presence as a positive thing.

# 6.5 How do Dowdall and Burnett et al.s' (2021) guidelines reflect the practice in this study?

When comparing the evidence from the teachers' practice to the guidelines developed by Dowdall and Burnett *et al.* (2021), it could be seen that their pedagogy matched the guidelines. Playfulness and the opportunity to engage with a variety of texts was apparent within the narratives as was the

teachers' focus on providing motivating authentic learning opportunities for the children. The teachers described tasks that allowed flexibility and were open-ended which allowed children to use their knowledge from home as well as developing new skills.

When considering the principles that these guidelines come from, an area that was not apparent in the narratives was the "ethical awareness that acknowledges the personal, social and environmental impact of digital participation on the wider world" (Dowdall and Burnett *et al.*, 2021;10) or the long-term effects of digital footprints. Although the children are beginning to consider how they may present themselves online there is no evidence of teachers preparing children to use digital media for civic participation and political purposes.

Considering both Burnett *et al.* (2014) and Dowdall and Burnett *et al.* (2012) alongside the narratives there is little evidence of critical literacy being part of classroom practice although it may be happening, and this is of interest for future research

# 6.6 Findings that went beyond the research questions

The fact that this study ended up being undertaken in the middle of a worldwide pandemic gives a unique perspective of what was happening in 6 schools. When I planned the research and wrote both my literature review and methodology the thought that a world-wide pandemic would change its course did not enter my head, the work has since been updated to take this into consideration. The section below outlines what this study found about practice during the lockdowns.

# 6.6.1 Increased use of moving image

During lockdown children began to use film to show their literacy learning, where they would have usually produced a written text. These findings reflect those of Chamberlain *et al.* (2020:243) who found that in USA during lockdown children started to produce "new and hybrid literacy practices appropriated and recontextualised within new communicative spaces", like the examples I have discussed this was in the format of videos. Children were engaged with these forms of learning, Clark, *et al.* (2020) also noted that as a result of the increased freedom that children had working at home,

they developed a more positive attitude towards writing, which does not reflect well on their perceptions of writing in normal circumstances.

# 6.6.2 Teachers' confidence in the use of technology grew

All of the teachers thought that colleagues, who had previously been anxious around technology, became more confident as a result of the pandemic and the need to teach online. Although this could be assumed from the case studies it would be interesting to research whether this led to an increase in their use of digital literacies. This is reflective of the findings by Misirli, and Ergulec, (2021), although their research was based in Turkey, they too found that in order to survive remote teaching during lockdown teachers had to quickly gain skills to teach remotely.

### 6.6.3 Improvement in communication with parents

Remote teaching during lockdown meant that parents were far more involved in the learning of their children, similar to Chamberlain's (2020) study, schools used platforms such as Seesaw to share children's work. Children uploaded the work they did at home including film, word documents and presentations and parents and staff could see the assessment process together. The teachers in this study felt that this created more positive relationships with the wider community.

# 6.7 Implications and recommendations

# 6.7.1 Digital Literacies need to be included in the national curriculum for English

All of the teachers have integrated digital literacies teaching into their classroom practice, but one says that they 'shoehorn it in' because it is not in the national curriculum for English. If there were objectives within the curriculum there would be an expectation for teachers to engage, and local authorities and schools could provide CPD to ensure that teachers had the skills that they needed to feel confident in using digital literacy in class. This is apparent in the case of Fran who has CPD provided by her local authority which she then disseminates to her colleagues in school, ensuring that all staff feel confident with new apps and technology. This enables all teachers to develop their skills to integrate digital literacies within their teaching. This reflects what Dezuanni (2015) argues, that schools should include it in their school curriculum and Burnett (2016), who made a case in the Cambridge Review, for it to be included in the national curriculum.

If schools are to provide a curriculum suitable for the 21<sup>st</sup> Century a way needs to be found to ensure that all teachers are skilled and knowledgeable in this area. This demonstrates the need for a centralised approach for CPD in digital literacies although, as discussed in Chapter 2, Madsen, Archard and Thorvaldsen (2018) found that some teachers were resistant to it. Within the case studies there is little evidence of critical literacy being a part of everyday practice. The research presented in Chapter 2 emphasises its importance and Bulman *et al.* (2021) and McDougall *et al.* (2019) argue that with the concerns around the effect of social media and fake news, more criticality is also needed within the national curriculum.

It has been established that it is challenging to define digital literacies, as technology is constantly changing but from the responses of the teachers that I interviewed a definition may be helpful to them. If it were then included in the national curriculum with objectives and suggestions for teaching, this would provide teachers who lack confidence, with ideas and support. Although there is no specific definition of digital literacies within the Scottish Curriculum for Excellence (2015) the definition of literacy that they use would encompass it. The themes that appear within the document include it specifically and from this, teachers can identify what is expected. I consider that from the evidence presented in this work, England would benefit from a similar model if we wish to provide a curriculum that is relevant for children in the 21<sup>st</sup> century. The CPD similar to that provided by Fran's local authority and Joe's federations of schools would aid the integration of digital literacies into the curriculum.

## 6.7.2 Digital Leaders and spreading good practice

The model offered by Fran's school and local authority is one that England would benefit from, although I acknowledge it is an example from a single case. Because Scotland has digital literacies embedded in the curriculum for English, training is provided by digital leaders in the local authority, these are teachers who have been seconded from school. Fran has then introduced digital leaders in the school, training the older children to support the younger ones. This builds upon their knowledge from home and gives them added confidence in their ability. Joe's school is part of a group of schools who have digital leaders within the partnership, they meet regularly and have training in new technology as it becomes available which is then disseminated within schools. The partnership also has technology which is shared between schools which means that they have access to more

technology than they would be able to afford as a single school. This is a model that other schools could adopt.

The United Kingdom Literacy Association (UKLA) had a Digital Literacies Special Interest Group (SIG) that was created to support teachers and researchers in the teaching and research of digital literacies. This has now moved into the Everyday Literacy SIG. If digital literacies are to be integrated into all classes, many teachers need support with how to accomplish this. The need for such support has implications for organisations such as UKLA who have already undertaken research into how to support teachers (Dowdall and Burnett *et al.*, 2021).

## 6.7.3 Learning from the lockdown

The increased use of film by children during the lockdown as revealed in this study, and their increased use of digital texts, has resulted in them having more positive attitudes to writing. This is an important finding and should be built upon within literacy teaching, creating "new and hybrid literacy practices" (Chamberlain *et al.*,2020:243), that are more regularly used within English which will increase motivation and enjoyment of children and celebrate the digital skills that they bring to the classroom.

## 6.8 My Teaching - How can ITE tutors support student teachers to teach digital literacies?

This study has allowed me an interesting insight into the practice of six teachers and has already had an effect on my pedagogy. I have revised my planning and teaching, so that digital literacies are both embedded and taught discretely. For example, during a workshop on speaking and listening, students worked with story boxes recording their stories using an iPad and considered apps that could support the aims of the learning. As part of a QTS programme I lead, I designed an option around digital literacies for Postgraduate students that focused on suggestions for classroom practice, practical experience and an examination of the theory. This included visits to schools where digital literacies were embedded to observe practice.

ITE English tutors need to be aware and confident in the technology and apps that can be used in primary classrooms and how they can be used to engage children and make literacy purposeful. There is a case to be made for a digital literacies specialist in English teams in universities who could work

alongside lecturers in computing and disseminate practice to their primary colleagues. Alongside this universities need to invest in technology for this to be possible. For example, in my current institution we have 20 iPads for our Faculty (alongside one computing lab), this is a Faculty which would normally have over 2000 students on site. The fact that I rarely have trouble booking them indicates the need for encouraging more staff use. Although this work is focussed on English, I would suggest that the integration of technology and digital literacies into all curriculum areas, so that it becomes part of the norm, would help students' confidence and knowledge.

My professional practice also indicates that digital literacies need to be embedded further and this was made clear when I taught a group of year 3 undergraduate students, all of whom were in their early 20s, as I heard several students say, 'Oh I am no good with technology'. This would indicate that there is a need for me to disseminate my research within my team and that the need for digital literacies to be included in the national curriculum is paramount so that future students do not feel as disenfranchised.

#### 6.10 Further research

This study has been interesting to me as a teacher of 30 years, the practice described in the narratives of the teachers has improved my pedagogy and has given me ideas for further research. I would like to investigate whether teachers' skills in digital technology, that developed in the lockdown, have continued when remote learning stopped and has meant that they have included digital literacies as part of their practice. I would like to work alongside teachers completing action research to develop their digital literacies pedagogies in the classroom and investigate the effects it has on children's views, attitudes and literacy learning.

#### **6.11 Conclusion**

I began this study aiming to find out how teachers incorporate digital literacies within their classroom practice and what can be learnt from this. Although this is a small-scale study, it has demonstrated that it is possible within the current curriculum to do so. Teachers in the study are motivated to provide engaging learning opportunities for their children, which they find the inclusion of digital literacies do. They recognise the need to build on literacies children bring from home and the importance of teaching children the skills and knowledge that they will need to live in a society in which technology and communication practices are rapidly changing. By acting as curriculum

designers and makers, the teachers in this study provide a curriculum that is transformative, and their children will hopefully "develop the skills to transform the world" (Carrington, 2005:10). Much of their practice could be replicated in other schools if money and CPD were to be invested in digital literacies. The next revision of the English curriculum needs to support teachers to prepare children for their future in the digital world, as well as ensure that they are safe effective users of digital technology now.

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- 1. learners need opportunities to use digital media for the purposes of collaboration, communication, creativity and critical engagement with text.
- 2. Teachers need to empower learners to use digital media for civic participation and political purposes.
- 3. Literacy provision needs to value and enable a diverse and flexible repertoire of communicative practices.
- 4. Learners need to be given the space and time to experiment with new forms and explore their potential for communication and creativity.
- 5. The skills addressed within a literacy curriculum (technical, expressive, rhetorical) should include those needed to participate creatively in digital spaces and diverse communicative or creative events.
- 6. Learners need to be encouraged to make selections about choice of media and to move between media and modes(print and screen based) in the course of communicative or creative events.
- 7. Use of digital media needs to go hand in hand with an ethical awareness that acknowledges the personal, social and environmental impact of digital participation on the wider world.
- 8. Learners should develop an awareness of how the possibilities for and barriers to- digital participation are shared by digital architectures.
- 9. Learners need a discerning approach that acknowledges the ways in which personal use is influenced by commercial and/or political interest.
- 10. Learners need the skills and attitudes to navigate the internet and other digital content with safety and discernment.
- 11. The long term effects of digital activity on identity management and digital footprint need to be recognised.
- 12. Working effectively through collaboration, online and offline requires interpersonal and exploratory skills.

- 1. Can you please talk me through the 10 photos you have selected to best demonstrate your digital literacy practice.
- 2. Ask any questions that come from the photo discussion
- 3. Lots of people define it differently how do you see digital literacy
- 4. Why do you feel that DL is an important part of primary practice?
- 5. Tell me about your training in DL when training to be a teacher
- 6. What skills/ interests did you have in digital literacy before you became a teacher
- 7. How does the senior management of the school support you in your digital literacy teaching?
- 8. Do other teachers in the school have similar practices?
- 9. Can you please describe how you plan for digital literacy, do you relate it to the NC?
- 10. Why do you think DL is important in primary schools?
- 11. What skills and attitudes do you try and teach the children?
- 12. How do you incorporate children's home knowledge and experience in DL into class practice?
- 13. Which particular skills do your class have in DL?
- 14. Describe the digital texts that you use with the class
- 15. Why do you consider DL to be an important part of practice?
- 16. Can you describe the affect that the pandemic has had on your DL teaching?

Appendix 3 An example of part of a transcript. This is from Alex, I have 3 pages out of the 20 as an example.

Alex Transcript

Good digital literacy practices and skills and attitudes

Definitions of DL

Links between home and school

Motivations to teach it

Planning and assessment

Out of school interests

Children's engagement

Covid

Risk taking

Staff development and training at uni

Why they consider DL to be important

Alex: Photo 1

This was a very quickly put together lesson. Oh, sorry. Yeah. It's just nice to be able to talk. so it started off as a PE lesson. And I'm, I've been in year one for quite a few years now. So most of my examples are from year one. And I really think using technology in year one is amazing. It just switches them on. And it comes back to that audience and purpose. So so well. But this was kind of we've started doing talk for writing in school now. But this was a bit before we did talk for writing, we had a PE lesson in which we were turning the children into Christmas trees. So we had to they had to put bibs on and they had to put all sorts, they had to put stars on their heads and things like that. And what we did, we took a we took pictures of each step. And then using Adobe video, we turned it into an instruction text that we could show the children. And then from that they were able to go off and write their own instruction text because they were able to realize how it was broken down into those individual components. So you know is first of all you will need and then First of all, put a bib on and then what to do in each of the subsequent steps. So that's, that's one way that we used it in year one and that worked really well. And actually that very, very randomly that lesson was observed and the lady who was observing it trains people in literacy and took away as an example. And he really was a thrown

together lesson I would have never done it if I knew anyone was coming In, it felt like a bit of a risk. But using that video kind of showed the children, it was almost like computational thinking it was break, breaking the problem down. And in in the video, there's text next to a picture. So it's getting them to think right, what I'm writing is actually, now I'm describing something. So that that worked really well, that that lesson I was really happy with that.

#### Photo 2

And in the next video I was going to show you but again, I can take JPEGs of it. So we use something called seesaw. Now have you heard of these? Okay, see saw is a bit like Google teams or something like that. But it's more of an app, it does quite a few more things. And in year one, in this particular in KS2, we use it to mark work. So what you can do is take a photograph of someone's work, and you can annotate it and talk over it as you're going. So I don't actually do any written work, any written marking of literacy anymore. And anytime they do a big piece of writing, this is how I provide them feedback

Me: Even before the pandemic?

Alex: yeah, we've been doing it now. Yeah. And we'll certainly continue. Now it has the advantage of the parents can see at home as well. So you're you're kind of breaking down those, those bridges. To be honest, if we weren't using seesaw before the pandemic, I don't know, what would we would done during the last lockdown those those two day warning that it wasn't enough. So we were just very fortunate to, to be in a place where we're ready to go. But in this particular video I've got for you I'm talking over, there's a boy called Johnny's piece of work. And I can actually if I put my finger on the paper and scroll around it, it highlights the piece that I'm talking about. So I can highlight capital letters, full stops. And it just is a very useful way of providing feedback, particularly in year one where I am, I'm not a fan of written feedback. I know some people are but I actually think is, when when I walk around the school on an evening, I want to see teachers getting ready for the next lesson, I don't really want to analysing the lessons have already gone. So especially as a Year 1 teacher, my children can't read read the book. So we just hand out some iPads, the next writing lesson, they listen to their feedback, and they get going and that we have found has had quite a big impact on what they can do. And because they they're just listening to the feedback for once, and we've kind of moved away from a school of saying, right, we want see children responding to the feedback. So we got into bad habits

of we'd write something, they'd write something. That's right, something else. And now it's very much here's your feedback, use that as you go forward. And and all that the SMT ask is that you can see that evidence in the books that you can see that you spoken to them, and they're doing something about it. And so it's much more So using seesaw in that way, is absolutely amazing. Because like I say the children have the headphones on the the year one children and the key stage one children in particular, you can articulate so much more in say, for example, a two minute video, you can tell them so much more than you can, trying to get them to read three sentences, 2 stars and a wish, and they can't read words, adjectives or anything. And it's really got the parents on board as well. So so that's where it really well, I'm sorry, these pictures aren't Where can you be, and actually be a lot easier to show you.

#### Alex photo 3

For the next one. And as I said earlier, we started doing talk for writing, I'm sorry, if I start looking away, I'm just opening up quite a lot of stuff .So when when we do your, you know about to write Yes, sorry, I didn't mean to you obviously know about it. So before we we kind of went for it, we tried it in a few classes. And I know Pye Corbett talks about going over a story again and again and again. But what I found quite useful is rather than just getting them to say the story is to show them a short video of the story. And I found that that was just quite a good trick of getting them to memorize the picture. Sorry the story. So it was just a way of embedding that story even quicker. And, and again, I use Adobe Spark video for it because it is so quick and so easy. And actually, I don't prepare anything at the start of the lesson. I link up the class iPad to the interactive whiteboard and we make a video together, I take a picture. And well I take a picture from Adobe because they're all copyright free and you can kind of do whatever you want with them. Then ask the children what the first bit of the story and what the next bit is. And usually I get different children to say the story as we go. And it just allows us to, to kind of build up a story very, very quickly. And it's it's just different than going over a story again and again. I really like talk for writing and I think it's better Great idea. But I think it kind of lends itself to technology very well. And Pye Corbett kind of never mentioned that. Yeah, I think it's brilliant. I really do.



Downloaded: 13/03/2022 Approved: 22/09/2020

Sarah Smith

Registration number: 170125183

School of Education

Programme: EdD in Literacy and Learning

Dear Sarah

PROJECT TITLE: Teaching Digital Literacies: Case Studies of Primary Teachers' Pedagogy and Practice APPLICATION: Reference Number 036241

On behalf of the University ethics reviewers who reviewed your project, I am pleased to inform you that on 22/09/2020 the above-named project was approved on ethics grounds, on the basis that you will adhere to the following documentation that you submitted for ethics review:

- University research ethics application form 036241 (form submission date: 20/09/2020); (expected project end date: 31/12/2021).
- Participant information sheet 1082017 version 2 (20/09/2020).
- Participant information sheet 1082016 version 2 (20/09/2020).
- Participant information sheet 1082015 version 2 (20/09/2020).
  Participant information sheet 1082014 version 2 (20/09/2020).
- Participant consent form 1082020 version 1 (06/08/2020) Participant consent form 1082019 version 1 (06/08/2020)
- Participant consent form 1082018 version 1 (06/08/2020).

If during the course of the project you need to deviate significantly from the above-approved documentation please inform me since written approval will be required.

Your responsibilities in delivering this research project are set out at the end of this letter.

Yours sincerely

ED6ETH Edu Ethics Administrator School of Education

Please note the following responsibilities of the researcher in delivering the research project:

- The project must abide by the University's Research Ethics Policy: https://www.sheffield.ac.uk/rs/ethicsandintegrity/ethicspolicy/approval-procedure
- The project must abide by the University's Good Research & Innovation Practices Policy: https://www.sheffield.ac.uk/polopoly\_fs/1.671066!/file/GRIPPolicy.pdf
- The researcher must inform their supervisor (in the case of a student) or Ethics Administrator (in the case of a member of staff) of any significant changes to the project or the approved documentation.
   The researcher must comply with the requirements of the law and relevant guidelines relating to security and
- confidentiality of personal data.
- The researcher is responsible for effectively managing the data collected both during and after the end of the project in line with best practice, and any relevant legislative, regulatory or contractual requirements.

3/20/22 Paleon many Bardina des cadema des paleons des paleons des paleons de la cadema del cadema de la cadema del cadema del cadema de la cadema de la cadema de la cadema de la cadema del cadema del cadema de la cadema del Recep of the project Individual Interviews Teaching Digital Liferacies Case Studies of Primary Teachers North thank part alone fid appear. Additional
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#### **Participant information sheet: Teachers**

## Research Project: Teaching Digital Literacies: Case Studies of Primary Teachers

You are being invited to take part in a research project. Before you decide whether or not to participate, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this.

## 1. What is the project's purpose?

The purpose of this project is to explore how primary school teachers teach digital literacy, this may be the use of iPads, film, blogs, Wikis, VR sets and other digital technologies. I want to understand how and why some teachers use it as part of classroom practice so that I can improve my practice and that of my students and colleagues. My research began in September 2019 and I hope to complete the work by December 2021.

## 2. Why have I been chosen?

You have been chosen as you have been identified, either by yourself or by students and colleagues, as someone that uses digital literacy within their practice.

#### 3. Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep (and be asked to sign a consent form) and you can still withdraw at any time up to the start of my data analysis (January 2021), without any negative consequences. You do not have to give a reason. If you wish to withdraw from the research, please contact Sarah Smith email <a href="mailto:slsmith1@sheffield.ac.uk">slsmith1@sheffield.ac.uk</a>

## 4. What will happen to me if I take part? What do they have to do?

If permitted, in the current situation, I will come and visit your school. If I cannot visit your school I will interview you online and not observe.

In the weeks leading up to my visit, I would like you to take up to **10 photographs of your practice** in digital literacy that can be used as a basis for **an hour-long interview with me**. This interview will begin with a discussion of the photos that you have taken and move on to a discussion about digital literacy. It will be a semi structured interview and quite informal. The interview will be recorded – audio only – and once this has been transcribed, the audio file deleted.

If I am allowed I would like to come and **observe you teaching digital literacy**, a lesson of your choice. I want to identify good practice that I can share with students and colleagues. If I can visit the school I will abide by the Health and Safety measures outlined by the school and the government. If Covid prohibits this I will not visit the school.

I would like to **look at some children's work** that you would like to share.

**If you would like** to you could **write a personal description/ reflection** of a lesson involving digital literacy that I have not observed but you feel really demonstrates your practice.

The audio and recordings of your activities made during this research will be used only for analysis and for illustration in conference presentations and lectures. No other use will be made of them without your written permission, and no one outside the project will be allowed access to the original recordings. The photographs may be used in dissemination which will be shared with you before publication/submission.

I will try to accomplish this is one visit to the school so that I do not use too much of your time. I would like to do this in the Autumn term 2020

## 5. What are the possible disadvantages and risks of taking part?

You will be observed, and this may cause anxiety, the process will take a few hours and I know that time is precious to teachers. If you have any concerns please raise them with me at once.

## 6. What are the possible benefits of taking part?

Whilst there are no immediate benefits for those people participating in the project, it is hoped that this work will benefit other teachers as good practice can be shared. It will help me to identify how I can support students in their practice and ensure that they feel confident teaching it. If you would like and the data from you will support it you would be welcome to co-author a paper with me.

## 7. Will my taking part in this project be kept confidential?

All the information that we collect about you during the course of the research will be kept strictly confidential and will only be accessible myself and my supervisor. You will not be able to be identified in any reports or publications unless you have given your explicit consent for this. If you agree to us sharing the information you provide with other researchers (e.g. by making it available in a data archive) then your personal details will not be included unless you explicitly request this.

What is the legal basis for processing my personal data?

According to data protection legislation, we are required to inform you that the legal basis we are applying in order to process your personal data is that 'processing is necessary for the performance of

a task carried out in the public interest' (Article 6(1)(e)). Further information can be found in the University's Privacy Notice https://www.sheffield.ac.uk/govern/data-protection/privacy/general.

#### 8. What will happen to the data collected, and the results of the research project?

The data collected will be seen by me, my research supervisor and a transcriber. Your data will be anonymised, and pseudonyms will be used for the school and your name. I will give you the opportunity to read my analysis chapter so that you can check that it is an accurate representation of your practice and to check that you are happy with it.

The research will be published as part of my EdD thesis and may appear in journal articles and publications. I can send you a copy of my thesis once published.

I will keep the data until 3 years after the publication of my EdD thesis. Whist I keep it will be in password protected files on my laptop and external hard drive.

## 9. Who is organising and funding the research?

Sarah Smith is the lead researcher. No funding has been made available for this project.

#### 10. Who is the Data Controller?

The University of Sheffield will act as the Data Controller for this study. This means that the University is responsible for looking after your information and using it properly.

## 11. Who has ethically reviewed the project?

This project has been ethically approved via the University of Sheffield's Ethics Review Procedure, as administered by the Education department.

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What if something goes wrong and I wish to complain about the research?

If you wish to complain about the research, you can contact

**Supervisor: Dr Rebecca Parry, email** R.L.Parry@sheffield.ac.uk School of Education, Edgar Allen House, 241 Glossop Rd, Sheffield, S10 2GW

Or Professor Elizabeth Wood <u>e.a.wood@sheffield.ac.uk</u> Head of department, School of Education, Edgar Allen House, 241 Glossop Rd, Sheffield , S10 2GW

information about how to raise a complaint can be found in the University's Privacy Notice: <a href="https://www.sheffield.ac.uk/govern/data-protection/privacy/general">https://www.sheffield.ac.uk/govern/data-protection/privacy/general</a>.

	Principal	Investigator:	Sarah	Smith,	email
Lead researcher	slsmith1@sheffield.ac.uk ph 07941641651				

Thank you for your participation.

**Teaching Digital Literacies: Case Studies of Primary Teachers** 

Please tick the appropriate boxes	Yes	No		
Taking part in the project				
I have read and understood the project information sheet dated or the project has been fully explained to me. [If you will answer no to this question please do not proceed with this consent form until you are fully aware of what your participation in the project will mean.]				
I have been given the opportunity to ask questions about the project.				
<ul> <li>I agree to take part in the project. I understand that taking part in the project will include:</li> <li>An observation, if Covid 19 allows this</li> <li>Taking 10 photographs of my digital literacy practice</li> <li>An interview either face to face or online</li> <li>If I feel able, a personal description / reflection of my practice</li> <li>Children's work being looked at</li> </ul>				
I understand that my taking part is voluntary and that I can withdraw myself from the study before December 2020. I do not have to give any reasons for why I no longer want to take part and there will be no adverse consequences if I choose to withdraw myself.				
How my information will be used during and after the project				
I understand my personal details such as name, phone number, address and email address, etc. will not be revealed to people outside the project.				
I understand and agree that my words may be quoted in publications, reports, web pages, and other research outputs. I understand that the photographs that I take may be used in publications and I will be able to preview the images before publication. I understand that I will not be named in these outputs unless I specifically request this.				
I understand and agree that other authorised researchers will have access to this data only if they agree to preserve the confidentiality of the information as requested in this form.				
I understand and agree that other authorised researchers may use my data in publications, reports, web pages, and other research outputs, only if they agree to preserve the confidentiality of the information as requested in this form.				
I give permission for the interview that I provide to be deposited in The University of Sheffield data repository so it can be used for future research and learning.				
So that the information you provide can be used legally by the researchers				
I agree to assign the copyright I hold in any materials generated as part of this project to The University of Sheffield.				

Name [printed]	of	participant	Signature	Date
Name of r	esearc	her [printed]	Signature	Date

# Project contact details for further information:

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Head of department	Professor Elizabeth Wood Head of the School of Education University of Sheffield School of Education 241 Glossop Road Sheffield \$10 2GW Tel.: 0114 222 8142 e.a.wood@sheffield.ac.uk		