



The  
University  
Of  
Sheffield.

# **What forms of Material-Discursive Intra-Action are generated through Documentation Practices in Early Childhood Education?**

**Jo Albin-Clark**

Submitted in partial fulfilment of the requirements for the  
degree of Doctor of Education.

February 2019

The University of Sheffield  
Faculty of Social Sciences

# Abstract

The thesis takes an agential reading of documentation practices to trace the intra-activity within contemporary assessment discourses of early childhood education (ECE) and offers a material-discursive exploration of three teachers at work in one school in North West England.

The research aims to reflect on the performativity of documentation to illuminate how assessment discourses are game-played and challenged. I put to work the methodological framework of new materialism through embodied, sensory and visual data collection, with on-line blogging along with *intraviews*. Using a diffractive analysis, I playfully map and cut visual, narrative and theoretical data fragments to create research documentation that traces the intra-activity of the human world of children, families and teachers with the non-human spaces and temporalities of the classroom.

The findings uncover resisting and creating intra-actions that generates spaces for teachers to adopt expert gameplay with and against assessment policy discourses. For children and families, the documentation intra-acts with spaces and temporalities to evoke senses of belonging by giving value to children's playful learning.

In summary, this study presents both theoretical and practice implications.

Theoretically, a reworked definition through new materialist lenses is proposed as a contribution to knowledge that asserts documentation practice as a potential transformative agent that can shift the teacher gaze. Practically, the thesis proposes that documentation can have powerful affects when its actions within spaces (rather than interpretations) are foregrounded. In addition, I problematise how far new materialist readings can find a practical language that speaks to teachers working within contested spaces shaped by intensifying policyscapes.



As a consequence, the thesis proposes that documentation can influence forms of ethical pedagogies that paint hopeful pictures of ECE teachers at work, promoting liveable and flourishing professional spaces in a policy climate that can otherwise confine.

# Acknowledgements

My thanks go to the teachers who have participated in the research. It has been a privilege to share your practice and commitment to children and their families.

Professor Angela Anning was my first role model. She demonstrated that a teacher can be an academic, and both roles are scholarly and creative. I was lucky enough to be employed by the exceptional head teacher Pat Pye, who saw something in me. To my colleagues at Edge Hill and my fellow Sheffield students, thank you for all the support and encouragement.

To my supervisors, Dr Liz Chesworth and Professor Elizabeth Wood, your patience and wise guidance has been invaluable. Thank-you for believing I can belong in your world.

## **I dedicate my work to my family.**

To my parents, Esther and Jeff and my siblings, with love.

To my children, William, Joseph and Eleanor, who have helped me with the design of the thesis and continue to show me that learning is the best thing you can do.

To my husband Adrian, I'm borrowing from the Bard  
*"I would not wish for any companion in the world but you"*

# Table of Contents

Abstract .....	2
Acknowledgements .....	4
Table of Contents .....	5
Table of Figures .....	7
<b>Chapter 1: Introduction.....</b>	<b>8</b>
1.1. The policy context.....	9
1.2. Professional Context .....	12
1.3. Rationale for the study.....	13
1.4. Thesis organisation .....	16
<b>Chapter Two: Literature Review.....</b>	<b>18</b>
2.1. Introduction to the literature review.....	18
2.2 The policy context.....	18
2.2.1 National policy context .....	18
2.2.2. The assessment policy context .....	19
2.2.3. Professional status of early years teachers .....	21
2.3. Posthuman frameworks.....	22
2.3.1. New materialism.....	24
2.3.2. Educational research .....	26
2.3.3. Posthuman and new materialist theory in early childhood educational research .....	28
2.3.4. Karen Barad .....	30
2.4. Definitions, origins and iterations of pedagogical documentation .....	32
2.4.1. Documentation and documentality.....	35
2.4.2. Pedagogical documentation as a material-discursive practice.....	37
2.4.3. Pedagogical documentation and the teacher role .....	39
2.5. Pedagogical documentation as an intra-active pedagogy .....	39
2.5.1. Pedagogical documentation as agentic .....	42
2.5.2. Pedagogical documentation as an apparatus of knowing.....	46
2.5.3. Pedagogical documentation in time and space and its relevance to the concept of <i>spacetime mattering</i> .....	48
2.6. The potential of viewing pedagogical documentation through posthuman and new materialist theorisations.....	51
2.6.1. Pedagogical documentation acting to resist.....	52
2.6.2. Pedagogical documentation acting to create .....	53
2.6.3. Pedagogical Documentation acting on ethics.....	54
2.7. Concluding comments.....	55
<b>Chapter 3 Methodology .....</b>	<b>57</b>
3.1. Methodological framework.....	57
3.2. Research methods.....	60
3.2.1. Intraviews and visual prompts as methodological tool .....	61
3.2.2. Selecting a sample and location .....	62
3.2.3. Participant school context .....	63
3.2.4. Interviews framed as <i>intraviews</i> .....	65
3.2.5. Discussion site (on-line blog) .....	67
3.2.6. Ethical considerations.....	70
3.3. Research procedure .....	73
3.4. Data analysis.....	74
3.4.1. Rationalizing an approach .....	74

3.4.2. Analysis process.....	75
<b>Chapter 4 Findings and Analysis .....</b>	<b>77</b>
<b>4.1. Introduction to the chapter.....</b>	<b>77</b>
4.1.1. Preparing and diffracting the data.....	77
4.1.2. Mapping the data .....	78
4.1.3. Glowing the data .....	80
4.1.4. Cutting the data.....	84
<b>4.2. Cutting the data one way <i>with the human world</i>.....</b>	<b>85</b>
4.2.1. Cut 1: Documentation intra-acting with children .....	85
4.2.2. Cut 2: Documentation intra-acting with families.....	89
4.2.3. Cut 3: Documentation intra-acting with teachers .....	93
4.2.4. Cut 4: Documentation intra-acting with the wider human world .....	97
<b>4.3. Cutting the data another way <i>with the non-human world</i> .....</b>	<b>101</b>
4.3.1. Cut 5: Documentation intra-acting with spaces .....	101
4.3.2. Cut 6: Documentation intra-acting with time.....	112
<b>4.4. Summary of findings .....</b>	<b>119</b>
<b>Chapter 5 Discussion.....</b>	<b>123</b>
<b>5.1. Introduction to the discussion chapter .....</b>	<b>123</b>
<b>5.2. Implications for practice.....</b>	<b>124</b>
5.2.1. Resisting intra-actions .....	124
5.2.2. Creating intra-actions .....	125
5.2.3. Transforming intra-actions .....	129
5.2.4. Binding intra-actions.....	133
<b>5.3. Theoretical implications .....</b>	<b>134</b>
<b>5.3. Methodological and ethical implications .....</b>	<b>136</b>
5.3.1. Methodological implications .....	136
5.3.2. Ethical implications.....	140
<b>5.4. Summary of discussion.....</b>	<b>144</b>
<b>Chapter 6 Conclusion .....</b>	<b>146</b>
<b>6.1. Introduction to the conclusion .....</b>	<b>146</b>
<b>6.2. Contribution to knowledge as a reworked definition of documentation practices. 148</b>	
6.2.1. Rationale to support contributions to knowledge.....	148
6.2.2. What does a new materialist perspective on documentation practice mean? ....	150
6.2.3. How are new materialist perspectives on documentation practices put to work?	
.....	153
6.2.4. Where and when are new materialist perspectives on documentation practices	
put to work? .....	154
6.2.5. Why do new materialist perspectives on documentation practices matter?.....	155
<b>6.3. Implications .....</b>	<b>159</b>
6.3.1. Implication 1: The connection between pedagogical documentation and a	
pedagogy of listening is limiting .....	159
6.3.2. Implication 2: New materialist theories open up dialogue about the <i>actions</i> and	
<i>forms</i> of documentation practices within classroom spaces.....	160
6.3.3. Implication 3: Documentation practices act collectively within spaces .....	161
6.3.4. Implication 4: Documentation practices are put to work by expert players .....	161
<b>6.4. Limitations .....</b>	<b>163</b>
<b>6.5. Future research directions.....</b>	<b>166</b>
6.5.1. Documentation practices within spaces.....	166
6.5.2. Documentation practices through time .....	167
<b>6.6. Final thoughts .....</b>	<b>168</b>
<b>References.....</b>	<b>170</b>

<b>Appendices.....</b>	<b>188</b>
Appendix A Participant Details .....	188
Appendix B Interview/Intraview and blog on-line discussion site schedule.....	188
Appendix C University of Sheffield Ethics Approval.....	189
Appendix D Participant Information Sheet.....	190
Appendix E Consent form .....	193
Appendix F Blog, on-line discussion site transcript visual and text extracts .....	195
Appendix F Intraview/interview transcript extracts with samples of documentation ...	198
Transcript 1 Big books .....	198
Transcript 2 Learning Stories .....	200
Transcript 3 Tapestry .....	202
Transcript 4 Twitter .....	204
Transcript 5 One family's documentation over time.....	206
Transcript 6 Walking around school space .....	208

## Table of Figures

<i>Figure 1 Assessment related practices in school.....</i>	<i>64</i>
<i>Figure 2 Research Procedure .....</i>	<i>73</i>
<i>Figure 3 Intra-actions between data .....</i>	<i>81</i>
<i>Figure 4 Intra-actions between documentation .....</i>	<i>82</i>
<i>Figure 5 Intraviews and blog entry mapping.....</i>	<i>83</i>
<i>Figure 6 Documentation intra-acting with children.....</i>	<i>86</i>
<i>Figure 7 Documentation intra-acting with families.....</i>	<i>90</i>
<i>Figure 8 Documentation intra-acting with teachers.....</i>	<i>94</i>
<i>Figure 9 Documentation intra-acting with the wider world .....</i>	<i>100</i>
<i>Figure 10 Documentation intra-acting with spaces.....</i>	<i>105</i>
<i>Figure 11 Documentation intra-acting with time .....</i>	<i>115</i>
<i>Figure 12 Mapping reworked definition of documentation practices with literature</i>	<i>149</i>
<i>Figure 13 What does a new materialist perspective on documentation mean? .....</i>	<i>150</i>
<i>Figure 14 How are new materialist perspectives on documentation practices put to work?.....</i>	<i>153</i>
<i>Figure 15 When and where are new materialist perspectives on documentation practices put to work?.....</i>	<i>154</i>
<i>Figure 16 Why do new materialist perspectives on documentation practices matter? .....</i>	<i>155</i>

# Chapter 1: Introduction

My enquiry investigates documentation practices within early childhood education (ECE) in England through the experiences of three teachers working in one school, with the nursery teacher acting as the main participant throughout the research process. I am using Elfström Pettersson's framing in relation to documentation practices in this enquiry:

I refer to all events connected to making and using documentations in the preschool, including taking photographs, writing captions, printing documents, looking at and talking about photographs and discussing events depicted in photographs or drawings. (2015, p.445)

The research aims to focus on the social and material inter-relationships at play within classroom spaces by relating documentation to wider discourses associated with observation and assessment. I employ Barad's (2007) concept of the interconnected nature of discourse and the material world as a central ideology. As a result, my enquiry explores the discourses used by teachers when they talk about their assessment practices, as well as the language they employ within the documentation they create and share. I put to work the posthuman framework of new materialism (Fox and Alldred, 2017) to reflect upon how the human world of teachers, children and their families relates with the non-human material of the classroom and school through perceiving documentation as a lively and agential matter. In order to do this, I explore the idea of documentation as intra-active. Intra-action is an idea borrowed from physics that troubles the inanimate and passive nature of objects and has been developed by the physicist Karen Barad: "intra-action recognises that distinct agencies do not precede, but rather emerge through, their intra-action." (2007, p.33). Consequently, the thesis explores the ways in which documentation intra-acts with teachers and children, and also with the materials and spaces of the school. Thus, I position documentation as agential and performative in pedagogical practice (Lenz Taguchi, 2010)

## 1.1. The policy context

One of the most influential approaches to documentation practice is termed “pedagogical documentation” which involves the observation of children’s learning as well as teacher interpretation and is presented through narrative and visual methods (Kline, 2008 p.71). It is a practice associated with listening and participatory cultures (Rinaldi, 2006) and influenced by various international iterations of ECE, particularly from the Italian province of Reggio Emilia (Edwards *et al.* 2012) and the New Zealand curriculum (Ministry of Education, 2017). This approach has an enthusiastic international following but remains difficult to transplant across socio-political contexts (Fleet *et al.* 2017). In addition, the practice can be time-consuming (Kalliala and Pramling Samuelsson, 2014), over-simplified (Pacini-Ketchabaw *et al.* 2015) and part of an array of demanding multi-documentation practices (Alasuutari *et al.* 2014).

Within the ECE policy context in England, observations of children’s learning are more readily associated with reporting and accountability narratives where the practice of pedagogical documentation is less apparent and relies on the professional knowledge of those leading pedagogical practice (Stobbs, *et al.* 2017). The curriculum for young children in England, the Early Years Foundation Stage (EYFS), has been statutory since 2007 (DfE, 2017). The curricula guidance combines notions of education and care, playful pedagogies and stages of subject-based developmental outcomes (Roberts-Holmes, 2012). However, the curriculum is problematic to put into practice, as teachers can perceive playful approaches to be confined by the prescriptive nature of the curriculum (Anning, 2015).

Policymakers continue to ascribe significance to developmental theories, where normative stages can be observed and assessed (Wood and Hedges, 2016) that can encourage a “magnetic pull” towards measuring children’s achievements (Basford and Bath, 2014 p.353). Additionally, the language used in curricula guidance is littered with phrases that connect assessment with standards and achievement: “sets the standards”, “ensure children’s ‘school readiness’” and “measuring progress” (DfE, 2014 p.5). The significance placed on the measurement of progress can lead to forms of datafication and a narrowing of the pedagogical offer, leading to a lack of attention

for individual children as teachers are caught up within a school readiness narrative (Roberts-Holmes and Bradbury, 2016). The notion of datafication can also mean that children at such a young age are classified as either “fitting the norm or deviating from it” (Bradbury, 2018 p.12). Accordingly, national policy drivers situate the curriculum as a mechanism for raising achievement within the wider scope of qualifications and ultimately position pupils as future economic contributors. Hence, the curriculum can be interpreted as an economic model where children’s achievements are measured as a return on the investment that governments make in ECE (Moss, 2014). An economic narrative has created disillusionment and defiance within the profession according to Dahlberg *et al.* (2013). This is compounded by working cultures that emphasize accountability and which are constrained by shifting and intensifying policy levers that in turn act to demotivate and frustrate professional identities (Bradbury, 2012). Such discourses at work within the field paint a picture of teachers negotiating complex accountability and economic discourses that exert a powerful influence upon their pedagogical decision-making. However, other influential discourses are also at work in ECE pedagogy, such as those associated with caring (Aslanian, 2015) and authority (Warren, 2014) as teachers forge relationships with young children that require subtle relational capacities.

Furthermore, a heightened policy climate promotes forms of assessment gameplay by teachers, influenced by a curriculum for children above statutory school age that frames assessment “‘of’ *as*’ and ‘for’ learning” (Bisford and Bath, 2014 p. 120). Documentation processes are thus positioned within agendas of formative and summative assessment and theorized as a sort of game that have dualist and conflicting purposes:

One is concerned with the assessment of children against a measurable set of outcomes at a set point in time to assure readiness for the next stage of their education. The other implies that assessment is a collaborative process, in which children’s learning and development is documented as an ongoing learning journey that is reflective of the culture and practice of the community the setting serves. (Bisford and Bath, 2014 p. 120)

Bisford and Bath (2014) posit that forms of assessment gameplay can be traversed when teachers develop stronger pedagogical knowledge that acts to challenge accountability and pursue other agendas, which could include pedagogical documentation practices. Such pedagogical knowledge and expertise within the field



would involve a scrutiny of learning processes rather than skills around tracking outcomes (Papatheodorou, 2009). By attempting to construct assessment processes that are collaborative and participative for children and families “representative of their social, cultural and historical heritage” it is possible for teachers to find moral and ethical satisfaction, according to Basford and Bath (2014, p.129). When assessment is framed as an ethical and relational practice it creates the potential for teachers to challenge how they and children in their classes are viewed:

From the perspective of practitioners, documentation as revelation and provocation incorporates the deconstruction of dominant discourses regarding the subjectivities that are imposed on themselves and on children. (Basford and Wood, 2018 p. 361)

Nonetheless, the benefits of pedagogical documentation are largely unknown outside of English based Reggio networks (Sightlines, 2010) and adoption of such practices can be “superficial and misunderstood” (Basford and Bath, 2014 p.127). Teachers who challenge assessment policies by developing knowledge through pedagogical documentation can present a more confident and powerful player of the “assessment game” (p.119) and also can be seen as an ethical gesture towards their local community, according to Basford and Bath (2014).

In addition, pedagogical documentation has also been researched as a mechanism to inform planning through children’s participation within the English context (Bath, 2012). Drawing on earlier research reported in Garrick *et al.* (2010), Bath (2012) found children were disconnected from planning processes as the reading involved proved exclusionary. As a consequence, pedagogical documentation was proposed as a mechanism for children’s participation by involving reciprocal teacher-child relationships and “continual knowledge-building” over time (Bath, 2012 p.200). Pedagogical documentation in such constructs offers children and teachers opportunities to jointly explore enquiries and interests, with the possibility of spaces for professional knowledge building. Subsequently, pedagogical documentation as a knowledge building practice could enable teachers to contribute rather than respond to dominant discourse, with the consequence that teachers can build agency as autonomous professionals (Dahlberg and Moss, 2006)

Pedagogical documentation is thus underdeveloped in English contexts. Influencing factors are attributed to the particular demands on teachers working within policy intensification that engenders assessment gameplay (Basford and Bath, 2014) and can disenfranchise children's participation (Bath, 2012) with the consequence of sapping professional motivation (Bradbury, 2012). Moreover, the practice of pedagogical documentation could offer the means for teachers to develop knowledge that builds their professional confidence and contributes towards developing a more analytical approach to interpreting curriculum guidance:

asking critical questioning of the curriculum in early childhood education is a necessary endeavour to develop alternative theoretical frameworks for understanding the ways in which curriculum can be considered alongside pedagogy, assessment, play, and learning. (Wood and Hedges, 2016 p.387).

## **1.2. Professional Context**

The approach to the topic of the thesis has been shaped by my professional experiences. My early career was spent teaching in ECE classrooms and in advisory roles in local authorities. For the last ten years I have been based in a university as an ECE teacher educator, so the qualification and professional development of teachers has become increasingly relevant.

When I trace back to my own teacher education over twenty-five years ago, I can see that tutors promoted observation and documentation as an essential skill to the ECE specialist. In retrospect, the course was full of lively theoretical debates with tutors who were active researchers themselves. What characterised much of the university teaching was a keen interest in the processes of learning and the observation of children engaged in play that was promoted as a prompt for pedagogical reflection. I can see much of my internal model of being a teacher and a university tutor was heavily influenced here, and has caused me pause to consider if this model I have constructed about documentation practices is in tune with contemporary classroom cultures.

Since I qualified, I have watched more formalised teaching methods take hold in classroom practice. The influence of policy discourses seems to intensify, casting a

powerful influence that emphasises a model of observation closely connected to the assessment rather than the processes of learning. Therefore, the idea of trying to understand how teachers navigate the divides between rhetoric and reality around documentation practices have shaped the rationale for the thesis. In addition, I have been aware that the statutory assessment of young children is unusual in international contexts (Bradbury, 2014). Hence, the rationale for the thesis has become wedded to seeing how teachers navigate the English policy assessment agendas and in particular how they experiment with alternative pedagogical approaches to documentation informed by less formal international contexts such as Reggio Emilia and Te Whāriki (Edwards *et al.* 2012; Ministry of Education, 2017). An interest in the practice of pedagogical documentation was confirmed by a visit to Reggio Emilia in 2010 that I explore in more detail in the methodology chapter. By understanding how practising teachers construct and deconstruct such agendas will in turn shape how I present the role that documentation practices have as a teacher educator.

### **1.3. Rationale for the study**

Thus, a significant rationale for the study is to explore the ways in which teachers make sense of the “assessment game” (Basford and Bath, 2014 p.119) through their documentation practices. Understanding how teachers create the spaces to disrupt and contest assessment agendas has provoked my investigation into what form and function documentation has within contemporary policyscapes. By taking an agential reading, I intend to foreground documentation’s material-discursive intra-actions between children, teachers, families and the non-human matter and spaces of their classroom. In addition, bringing new materialist approaches as a theoretical frame can emphasise how social and material worlds coincide and interrelate. In effect, this opens up the possibility of bringing fresh insights into a saturated field of scholarship that has at times neglected to evidence how pedagogical documentation can change ECE practices (Rintakorpi and Reumano, 2016).

In order to explore the human and non-human relations within documentation practices I am taking the position that matter has agency and influence in addition to

teachers and children. In this notion, agency does not reside in individuals but rather emerges through intra-action (rather than interaction) between humans and non-humans (Barad, 2007). The thesis is informed by the work of Lenz Taguchi (2010), who initially explored the potential of posthuman theorising through Karen Barad's onto-epistemology, an idea that challenges the separateness of knowing about the world and being in the world (2007 p.185). Lenz Taguchi (2010) relates this theorising to ECE and posits that pedagogical documentation can act as a "performative agent" (p.10) that in turn provokes shifts in thinking, enacts pedagogical change and encourages more ethical ways of working. Furthermore, Lenz Taguchi posits that positioning pedagogical documentation as a tool can shed light on the interconnectivity between material and discourse (2006, 2009, 2010). What opens up is the possibility to explore alternative approaches in thinking about *how* and in *what ways* documentation practices perform in classroom spaces to extend the discussion about how the material and discursive interconnect (Lenz Taguchi, 2006, 2009, 2010). My aim is to survey how agential readings of documentation illuminate the ways teachers conform, resist, circumvent and even flourish within policy intensification.

Theories of new materialism and agentic notions of documentation practices are a current line of research enquiry in international scholarship (Elfström Pettersson, 2015; Kummen, 2014; Merewether, 2018; Pacini-Ketchabaw *et al.* 2015). Such recent research explores how the social and material worlds relate through the processes of documenting young children's learning. Blaise *et al.* (2017) draws on De Freitas to posit that what is lacking in ECE social-material research is examination of what structures underpin connectivity. De Freitas argues that there are pitfalls to the study of interconnections and relationality as they run the risk of over simplification:

All too often, relational ontologies make rather mundane claims about everything being connected or interdependent, without adequately addressing the complex structure of connectivity. I would argue, however, that Barad offers a far more nuanced and complex theory of relationality in a postquantum world. (2017 p.6)

By taking Barad's concept of intra-action (2007) and Lenz Taguchi's proposal that pedagogical documentation has agential capacities (2010), I explore the structures that underpin assessment gameplay, through studying the connections and intra-activity

between the material and the discursive in the everyday documentation practices of three teachers. By attending to this specific relationality involved in the intra-activity of documentation practices, I propose that fresh insights are available to understand the structures that underpin assessment discourses by rethinking what counts as empirical data in the social sciences when the non-human becomes part of the investigation. Considering the matter and meaning of documentation practices might shed light on the connectivity and relationships entangled between the material and the assessment discourses at work in the ECE classroom. By focusing on the connectivity and relationships between the material and discursive, this will enable examination of how teachers navigate, conform and disrupt ideological structures such as the assessment agendas promoted within curricula guidance.

In addition, Wood and Hedges (2014) posit that post-structuralist theorisations work to critique underpinning concepts rather than offer practical guidance and thus have limited influence on curriculum theory and practice, including assessment and pedagogical considerations (p.396). My own enquiry intends to explore the complexities, interconnections and processes involved in documentation practices by addressing how abstract theories such as new materialism can be understandable and relevant in everyday practice outside of theoretical research communities.

This enquiry is significant for the ECE field at a time of policy intensification. Moss (2015) argues for alternative agendas to contest dominant ways of thinking that can precipitate discourses of hope and environments in which teachers, children and ECE communities can flourish. In particular, I aim to seek out how agential readings of documentation illuminate the ways in which the material and discursive inter-relate and in what ways teachers negotiate the multiple demands of assessment agendas. Crucially, I aim to consider how tracing the intra-activity of documentation sheds light on how teachers negotiate assessment agendas in ways that ring true to their pedagogical beliefs within and through policy intensification.

How I position myself as a researcher also influences the rationale for the thesis. Taking new materialist approaches (Fox and Alldred, 2017) to the study of documentation processes requires the researcher to focus on the non-human, so

working with the documentation itself and being aware of its actions and influences within the spaces of the classroom is important. Such methodologies suggest embodied and embedded approaches (Braidotti, 2011 p.128) that acknowledge my own entanglement and influence on the research process. This has further implications for the ethical relationships involved with the research participants that also entangle the non-human (Taylor and Iverson, 2013).

Thus, taking the relevant policy, personal and methodological contexts into account with an interest in bringing fresh insights into how teachers navigate assessment agendas through their documentation practices, I have developed the main research question:

What forms of material-discursive intra-action are generated through documentation practices in early childhood education?

In addition, this is followed by three sub questions that investigate the particular actions that documentation makes in the context of the assessment agenda:

- *How does documentation act to resist?*
- *How does documentation act to create?*
- *How does documentation act on ethics?*

## **1.4. Thesis organisation**

The thesis follows a conventional organisation in order to explore how teachers put to work documentation and in addition works with inventive methods to shed light on the agency of the non-human world in the ECE classroom.

Subsequent to the introduction, the thesis is organised as follows:

### **Chapter 2 – Literature Review**

This chapter reviews the relevant literature by firstly considering the broad and specific policy context of assessment. After this, I scope posthuman and new materialist theoretical frameworks to consider their potential for ECE based enquiries.

Secondly, definitions, origins and iterations of pedagogical documentation will be explored. Finally, the review considers notions of agency, intra-action and what potential benefits there are in placing documentation practices within post-human and new materialist theorisations.

### **Chapter 3 – Methodology and Methods**

This chapter outlines the methodological framework that I have put to work to answer the research enquiry. In addition, the methods are explained along with the procedures, ethical processes and approaches to data analysis.

### **Chapter 4 – Findings**

The findings of the research in relation to the main data collection methods are investigated in this chapter along with the rationale for mapping the findings in narrative as well as visual forms.

### **Chapter 5 – Discussion**

My discussion chapter charts the conceptual and practical implications of the research findings, along with consideration of any methodological and ethical consequences that have arisen from the procedures.

### **Chapter 6 – Conclusion**

Finally, the conclusion sets out how the findings contribute new knowledge to the field of documentation practices through a reworked definition of documentation practices within a new materialist framework. In addition, I reflect on the methodological limitations of the thesis and future research directions.

# Chapter Two: Literature Review

## 2.1. Introduction to the literature review

The following literature review has five parts. Firstly, the English education policy context will be surveyed. Next, the field of posthuman and new materialism will be scoped and considered in terms of its application to educational contexts. After that definitions, origins and iterations of pedagogical documentation within the context of contemporary ECE will be analysed. A further section of the literature review considers selected research that applies the theory of new materialism (Fox and Allred, 2017) to various iterations of documentation practices within contemporary research. In summary, the themes and contentions within the literature will be scoped to identify how the research enquiry can contribute to the field.

## 2.2 The policy context

### 2.2.1 National policy context

The English educational landscape has been significantly shaped by both prolific and intensifying policy initiatives over the last twenty years that directly correlates schooling with economic productivity within a globalised market (Ball, 2013). Moss (2015) contends that a focus on such policies is a direct result of governmental anxiety about an increase in complex social problems with the belief that early intervention is an effective economical fix. As a result, schools and the ECE sector seem to swim in the ebb and flow of a policy tide driven by different ideological and economic imperatives. Currently the narrative of raising academic standards promotes competition and marketisation and writers such as Cohen *et al.* (2018) align this with initiatives such as free schools and academisation. However, Ball (2013) notes that the language employed in policy texts can be slippery and difficult to understand (p.7) whilst Moss (2014) laments how “little thought, reflection and deliberation have gone into the post-1997 policy renaissance of ECEC” (p.355). An example of such a policy was the multi-professional Children’s Centres that failed to



become a core service amongst a piecemeal provision that have since largely been depleted of funding. The increasing emphasis on marketisation has had significant influence on schools and the private and voluntary providers that serve the ECE sector. Within an austerity agenda, governmental policies foster the accessibility and affordability of care whilst promoting the two main aims of ever-stretching children's development and enabling parental employment (Lewis and West, 2017 p.331). A compliance with curriculum policy can deflect attention from ethical concerns such as the responsibility towards others (Winter, 2017). This suggests a complex, at times incoherent and fast changing field for schools who find themselves making sense of a "policy overload" (Ball, 2013 p.3).

Alongside the excess and frequency of policy changes in the education field, Ball (2003) theorises that *policy technologies* are at work and involve "the market, managerialism and performativity" (p.216). A culture of performativity has consequences for teacher behaviour, the vocabulary they use and more significantly their professional identity and that has inherent ethical tensions (Ball, 2003). However, cultures of performativity breed compliancy and resistance and Urban (2018) reminds us that in reality there are varying degrees of compliancy. This suggests that policy proliferation has implications that are far reaching for teachers that shape the content and form of teaching. Likewise, there are implications for how children are positioned as they are labelled through assessment processes that operate within a powerful school readiness discourse. Moss (2017) posits that there is an urgent need to seek resistance: "how can we struggle to think differently and so refuse the subjectivity that the dominant discourse seeks to impose on us?" (p.20).

### **2.2.2. The assessment policy context**

Inevitably, policy narratives that foreground performativity will involve forms of testing and assessment that are connected to standards agendas (Ball, 2017). Whilst schools have always engaged in forms of testing and assessment, Moss (2018) argues that the field is shifting:

The search for high returns in a competitive marketized society calls for the setting of performance standards as well as precise and measurable outcomes

for assessing performance, enabling a constant drive to improve performance. These standards need to be expert derived, evidence based and reliably measurable; they must, too be universal, objective and stable. (p. 41-42)

The success and progress of schools within such a performative frame employs a range of statutory assessment points including the Early Years Foundation Stage Profile at the end of the first year of compulsory education at age five, a Phonics Screening Check at age six and statutory assessments at age seven and eleven referred to as SATs (Bradbury and Roberts-Holmes, 2018 p.17). Whilst it is the case that assessment data tracks the progress of individual children, it is also employed by the regulatory powers of the inspection body (Ofsted) to judge the success of the school itself (Bradbury and Roberts-Holmes, 2018) and the performance of teachers. Currently, Wood (2019) is concerned that Ofsted are extending their remit beyond regulation and have become the sole arbiter of quality. Similarly, Kay (2018) posits that Ofsted are intervening directly with curriculum and assessment by reifying formalised learning in the Reception year through foregrounding notions of school readiness. Such shifts mean teachers are continually making and remaking a sense of their professional responsibility towards their pedagogy and assessment and in effect pushes responsibility for our own and others performance (Ball and Olmedo, 2013). Consequently, governments divert responsibility directly to teachers for a school's success (Winter, 2017).

In the field of non-compulsory ECE in England nursery classes in schools and the private and voluntary sector are not required to make statutory assessments, but the tracking of progress against developmental milestones within the curriculum frame inevitably shapes practice (Early Education, 2012). Amongst the policy tide, Bradbury and Roberts-Holmes (2018) problematise the production of data through assessment practices and explore the influences and importance of 'datafication' for the ECE sector (p.1). Such generation, collection and scrutiny of data will predictably shift the status of assessment practices, with pressures to generate certain kinds of data that alter both teacher and children's daily practices. The concern is that the production of the right kind of data is viewed as being more legitimate and significant (Roberts-Holmes and Bradbury, 2016) and will foreground their related pedagogies whilst narrowing others. A further consequence of datafication cultures is how the

collection of assessment evidence can dominate and consume everyday practice (Roberts-Holmes and Bradbury, 2016). Wood (2019) problematises the continual questioning by Ofsted of the relationship between play and learning in the EYFS (DfE, 2017) when international scholarship provides consistent evidence of the vital relationship between the two. Moss (2018) offers a dystopian question about the future trajectories and implications of collecting and processing assessment data:

How long before further development leads to technologies and algorithms that handle all stages of performance assessment – not only the processing and analysis of data, but its collection direct from the children, so making assessment and surveillance of children, adults and schools possible without any direct human intervention? (p. 14)

Thus, the three elements of performativity, datafication and influence of universal notions of learning and progress as inscribed in developmental milestones dominate assessment policy and practice. The implications of this overarching discourse has direct impact on how teachers both develop and govern their pedagogical practice. In terms of performativity, Ball (2003) argues that teachers can lose their own beliefs in the pursuit of target driven cultures, suggesting that assessment practices will overshadow other pedagogical decisions. Datafication agendas shift the relationship with assessment and, as Bradbury (2019) notes, the teaching of literacy and mathematics is becoming more prevalent and thus will have more curriculum time spent on them at the expense of other areas of learning. An over-emphasis on learning and development framed as a logical progression of milestones can encourage forms of assessment that are unerringly uniform and standardised, and, according to Moss (2015) limits the richness and multiplicity of pedagogy.

### **2.2.3. Professional status of early years teachers**

The dominance of assessment agendas within the policy tide has implications for how the professional status of teachers is understood. Regardless of their qualification, teachers who work in the ECE sector have historically had a lower status than their colleagues who work with older children, but Urban and Dalli (2012) suggest this view is shifting as the profession becomes more confident and assured. Swimming in an intensifying policy tide has meant the ECE profession has gained attention from policy

makers and broader bodies such as the media and business and this has brought other pressures to bear (Osgood, 2006 p.2). However, an increase in policy attention has meant that professionalism within ECE takes a narrow focus, which in part has resulted from a continuing misunderstanding about the relationship between education and care that is bound up with very young children (Osgood, 2010). In effect policy makers have formed a view of professionalism from a stereotypical male perspective when in reality a predominant female workforce puts to work complex notions of care (Osgood, 2010). Subsequently, policy makers have normalised what is understood as the early years professional and this neglects to account for the sophisticated emotional work that makes up everyday practice of the interrelationships between child, parent and professional (Osgood, 2010). Significant for this thesis is whatever level of qualifications and experience, practitioners are required to make complex judgements about children's learning and development within the EYFS framework.

Thus, the status of ECE teachers has a complex history and currently through the lens of accountability and performativity is continually reconstructing what it means to be professional and what that professionalism means within the field. In addition, this policy discourse has the potential to construct certain views of the child who demonstrate the 'right' kinds of progress that carries consequences for those children who are not achieving or exceeding what is expected at the end of the Foundation Stage. Bradbury and Roberts-Holmes (2018) note that: "It produces new data-driven teacher subjectivities, which in turn interact with a model of the student or learner, also shaped by data." (p.62). On the basis of this analysis, I propose that concerns about what and who is swimming in the policy tide can be addressed through the perspective of post-human frameworks, as defined in the following section.

### **2.3. Posthuman frameworks**

The terms posthuman, posthumanism and posthumanist are applied across academic disciplines in attempts to redefine the human condition through a period of great change in the last and present centuries (Ferrando, 2013). Posthuman thought

evolved through a critical reaction to humanist philosophies that emphasizes the foregrounding of human interest and reason (Scott and Marshall, 2009). The term posthuman suggests that what has been thought as human is undergoing a period of radical change (Pepperell, 2009). However, Ginn (2015) posits that the concept of the posthuman can be understood more as a development of rather than a break from humanism.

Humanism in the posthuman critique, foregrounds the human at the apex and in dominion of all other species and the natural world, personified in Leonardo da Vinci's image of Vitruvian man (Braidotti, 2013). Critiques of humanism observe that this manifestation of the ideal human as European, able-bodied and male privileges one type of human, leading to modes of thinking that entrench patriarchy, colonialism and the continued denigration of the natural world for human gain (Ferrando, 2013). In effect, everyone who is not a certain category of ideal human is by default othered:

Otherness is defined as its negative and specular counterpart: irrationality, immorality, femininity and non-westernness. In so far as difference spells inferiority, it acquires both essentialist and lethal connotations for people who get branded as the 'others'. These are the sexualised, racialised, and naturalised others, who are reduced to the less-than-human status of disposable bodies. (Braidotti, 2013 p.2)

Consequently, humanism measures the alterity of others against an ideal type and finds everyone else inferior (Marchesini, 2016). It follows that whole categories of people, such as those with disabilities, are not considered as human in the same way as others (Goodley *et al.* 2014). Yet the notion that the posthuman offers an inclusive view is problematic. St. Pierre's (2015) study of the posthuman and disabled speech, posits that this theory still privileges an idealised human form:

Like its humanist predecessor, and contrary to much of its rhetoric, posthumanism shows signs of structural exclusion dependent on having the right sort of informational body: malleable and flexible. (St. Pierre, 2015 p.331)

Aspects of posthuman thinking, encompass a range of experimental fields of enquiry that engage in ways of transforming the human condition and could be seen as again shifting the human into the centre of concern. A term such as 'transhuman' is used to describe scientific and technological developments that attempt to enhance, prolong and surpass current human capabilities (Wolfe, 2010). In addition, the term

encompasses ideas that borders between what is animal, human or machine and can be understood as a hybrid concept (Haraway, 1991). However, transhumanism has been critiqued as being centred on technological enhancements that may exclude those who do not have access to such advancements (Ferrando, 2013).

Scholars of the critical posthumanities such as Braidotti (2018) call for a creative and affirmative rethink of what it means to be human in a period shaped by complex economic and environmental agendas. Likewise, Haraway (2016) urges us to “stay with the trouble” (p.3) of the present and find inventive ways to connect across binary divides. The ‘missing people’ who have previously been excluded from humanity, such as women and people with disabilities, hold essential understandings:

it gives us a frame for the actualization of the many missing people, whose ‘minor’ or nomadic knowledge is the breeding ground for possible futures. (Braidotti, 2018 p.23)

### **2.3.1. New materialism**

Like posthuman theories, the emerging notion of new materialism attempts to decentre the human by putting emphasis on a co-existence with matter and materials (Coole and Frost, 2010). The theory is premised on the notion that materials within the world are in relation, material and social worlds are not separate and the facility for agency can encompass the non-human (Fox and Alldred, 2017). However, MacLure (2015) draws attention to indigenous cultures that have historically attended to the liveliness of the non-human and natural world, which suggests new materialism is not a recent way of thinking.

New materialism is influenced by feminism in “rejecting dualistic partitions of minds from bodies or nature from culture” (Braidotti, 2011 p.128). Corporeal feminism demarcates a renewed interest in the physicality, matter and materiality of the body (Ferrando, 2013). Within this frame, dualist views of body and mind are unhelpful because the physical matter and differences between male and female bodies are important in understanding the social and power imbalances of gender relationships (Grosz, 1994). Judith Butler’s (2011) theoretical ideas are influential in her observation that the corporeal body plays a significant role in how gender is understood (Vasterling, 1999). This suggests an interpretation of the body as a materialised collection of matter and is another means of decentring the human.

Through this lens, the interconnections between the human and non-human world are acknowledged and the agency of both become foregrounded (Connolly, 2013).

Agential readings of the non-human world are an important contribution from new materialist thinking. The political theorist Jane Bennett (2010) considers objects as being vibrant, participative and able to exercise force in events and offers terms such as “vital materiality” (p.viii) and “thing-power” (p. 2). The notion of agency distributed across the human and non-human world is also associated with Karen Barad (2007), and this will be explored in more detail further on within the literature review. In addition, Latour’s (2005) theory of social actor network considers agency within assemblages of human and non-human actants, but has been critiqued in relation to its lack of engagement with how power is enacted (Fox and Alldred, 2017).

Hence, the benefits of using new materialist approaches centre on foregrounding matter and material and enable a view of humans and non-human elements interrelating (Braidotti, 2013). It follows that this may be particularly relevant within the current educational policy climate by acting:

as a counter-movement to the increasingly neo-positivist outcomes-based, ever-intensifying (it seems) neo-liberal political and economic climate of education, such a post-disciplinary approach can, perhaps, offer some potentially ethical and political, as well as intellectual, resources. (Taylor and Iverson, 2013 p. 665)

However, the capacity for offering new resources can be limited by neglecting to study how social structures work (Coole and Frost, 2010), suggesting that matters such as power differentials may be under-analysed. Currently, scholars such as Kraftl (2018) draw attention to how studies of the agency of the non-human raise questions of Othering and anthropomorphism. In addition, Kraftl (2018) calls for new materialist research to take account of broader political, social and ecological fields of enquiry to counter imminent environmental concerns. In troubling the separateness of concepts such as nature and culture, mind and matter (van der Tuin and Dolphijn, 2010), new materialism can enable productive ethical frames about how the human and non-human world can co-exist (Braidotti, 2013). Significantly, Bennett (2010) argues that viewing agency as being distributed has the potential to bring about a more

responsible political ethics exactly because the human is not at the centre of the focus.

### **2.3.2. Educational research**

Posthuman theories such as new materialism can enable a reconsideration of what is understood as knowledge and the purposes of education:

Together these strands shift the focus away from individualised acts of cognition and encourage us to view education in terms of change, flows, mobilities, multiplicities, assemblages, materialities and processes.

(Taylor and Ivinson, 2013 p.665)

Using a lens that foregrounds matter and materiality, research into educational practice illuminates how “class, gender, race and power operate in material assemblages in often submerged or hitherto ‘unseen’ ways” (Taylor and Ivinson, 2013 p.667). Assemblages is a term used by Deleuze and Guattari (1988) to describe how objects and more complex phenomena such as social and linguistic systems relate and function “Assemblages are ad hoc groupings of diverse elements...Assemblages are living throbbing confederations” (Bennett, 2010 p.23-24).

There are recent examples of research that focus on the intra-actions within educational practice (Lenz Taguchi and Palmer, 2013; Taylor, C. 2013), whilst other research moves beyond school buildings and focuses on nature, outdoor spaces and relationships with animals (Taylor, A, 2013; Quinn, 2013). Branches of this educational application have been developed from Latour and Porter’s (2009) theory of ‘common worlds’, which posit that humans are not separate from the natural world and that encounters between children and other species can generate new sorts of learning (Taylor and Pacini-Ketchabaw, 2015). Taylor (2016) asserts that such frames can expand the field of enquiry to include what can be considered as more than human. It can be inferred that new modes of educational enquiry can extend ethical considerations outside of the human world.

One prescient example of research that used posthuman approaches to explore educational practice analysed how assemblages of school buildings, human bodies and discourses influenced the well (or ill) being of pupils (Lenz Taguchi and Palmer,



2013). This research draws on Barad's (2007) suggestion that diffractive (rather than reflective) readings offer a more attuned reading of data. Diffraction, often used in physics to describe the action of light or water waves as they encounter an obstacle, sees data through their patterns of difference, rather than patterns of sameness (Mazzei, 2014). Lenz Taguchi and Palmer (2013) posit that the experience of a girl's rush hour journey to school are enmeshed with her nervousness and worry about a mathematics lesson:

All of these different material agents are entangled with discourses on school achievement, mathematics and anxiety about the future.  
(p.677)

In this research, notions of diffraction enable a view of education as a relationship between the human and the 'stuff' of the physical space and material of school. Snaza *et al.* (2014) contend that posthuman theories of education open up lines of enquiry "always already related to animals, machines and things in schools" (p.40).

Whilst Lenz Taguchi and Palmer (2013) consider the materiality of the built environment in education, there are examples of posthumanist research that shift the focus to natural spaces (Pedersen, 2010; Quinn 2013). This has parallels with Bennett's (2010) concept of "vibrant matter" (p.117) to describe nature and natural spaces within the posthuman frame. Quinn's (2013) findings suggest that children's immersion in natural spaces and contact with animals and birds, contribute to positive attitudes to learning. However, this research finds that posthuman approaches sometimes idealise nature and marginalize societal influences such as the significance of how children experience inequalities.

Moreover, such radical reappraisal of what counts in educational research can offer challenges (Taylor, 2016). St. Pierre (2016) considers that educational research foregrounds methodologies and thus neglect analysis of underlying knowledge and positioning. Consequently, this reinforces older modes of thinking that make the new posthuman approaches difficult to apply (Pedersen and Pini, 2017). Weaver and Snaza (2017) add to this critique by asserting that a reliance on older humanist approaches can result in a form of methodocentrism that again privileges the human by over-relying on, for example, visual approaches. Their proposal would be to consider what

is seen alongside and in proportion to what our range of senses can perceive, “We must begin to study how education even as it takes place now has only been partially *heard* and *felt* by existing research.” (Weaver and Snaza, 2017 p.9).

### **2.3.3. Posthuman and new materialist theory in early childhood educational research**

Posthuman theory challenges universal understandings of developmental psychology as a “grand metanarrative of science” (Walkerdine, 1993 p.451).

Postdevelopmentalist thinking challenges taken for granted theories about how children develop and learn and argue that such frameworks regulate children, teachers and parents by claiming normative development as scientific fact (Edwards *et al.* 2009). It follows that posthuman theory can offer a contemporary approach to considering education outside of child-centred and developmental psychological frameworks (Blaise, 2016; Murris, 2016).

Within a global policy climate that privileges individual achievement and outcomes, posthuman theory moves away from seeing young children in terms of normalised child development and opens the door for viewing education within a more complex frame of interdependency between humans, matter and materials (Taylor *et al.* 2012). Fairchild (2016) posits that posthuman theorisations of ECE can provide alternatives to technicist views of practice and professional roles within the context of national and international policies. Subsequently, posthuman applications to ECE offer alternative frames of reference to dominant notions of childhood (Blaise, 2016) and also enable a view of the young child as connecting with and understood through a network that includes the human and more than human (Murris, 2016). New materialist and posthuman lenses shift attention to the intra-activity between children and matter, “producing modes of being and knowing in which both- children and matter- constitute each other.” (Rautio, 2014 p.471).

The theories of Deleuze and Guattari (1988) have influenced new materialist research that originates from the view that thinking does not happen in isolation, but through socio-material networked encounters. Accordingly, this can fundamentally alter how researchers and the worlds they research relate to each other (Olsson, 2015). It

follows that this is particularly significant in ECE research as it suggests that the researcher is part of the encounter and therefore not able to objectively generate data as a non-participant. Research that takes this position has explored gender as a relational and social assemblage of bodies and things and in addition, placed the researchers and children as active participants in the generation of data (Blaise, 2013; Renold and Mellor, 2013). Osgood and Guigni (2015) inspired by the work of Sellers (2010), similarly explore creative methodologies in their enquiry into how gender can be understood through assemblages of material, space and bodies in micro-moments in everyday life:

children's play is full of activity and energy, and the physical territory of a game as well as the surrounding environment (including natural resources and material artefacts) are already chaotically becoming-with, in and through a multiplicity of story lines. (p.351)

Osgood and Guigni consider that taking account of the researcher's personal philosophies enable a richer approach that encompasses a "material-affective-semiotic entanglement" (2015, p.349).

An interest in such entanglements are manifested in geographical research that explores "place as assemblage", a construct that considers place as an essential part of the intra-action between humans and non-humans (Duhn, 2012 p.99). Notions of assemblage have also been applied in Clark's (2012) art-based research that entangles paint, felt, temperatures, surfaces, brushes, young children, artists and practitioners intermingling with sound and voices. Within ECE research, working with such theories can enable more abstract ideas to be embraced such as place, classroom materials and the influence of the researcher within the process, but might be at the expense of acknowledging the social and linguistic worlds of children.

Young children's relationships with the curriculum itself (Olsson, 2012; Sellers, 2013) and curricula subjects have been studied through posthuman and new materialist lenses (De Freitas and Palmer, 2016; Harwood and Collier, 2017; Kuby *et al.* 2015; Kuby, 2017; Palmer, 2010). Whilst De Freitas and Palmer (2016) consider how children's physical experiences with matter and material shape their developing conceptualisations of scientific ideas, Palmer (2010) takes mathematics as a focus and studies how gender and classroom materials are "new co-members" that can help

evaluate pedagogical practices (p.139). The materials of curricula learning also take centre stage in Kuby *et al's* (2015) explorations of how children conceptualise literacy through multi-modal intra-actions that include time and space. Likewise, Harwood and Collier (2017) take literacy as a focus but venture into forest spaces and open up a conversation about how young children's intra-active play with sticks can challenge how 'formal' literacies are thought about.

New materialist theoretical lenses lend themselves to exploring the ethical dimensions of young children's worlds (Chesworth, 2018; Davies; 2014; Palmer 2016). Davies (2014) used concepts such as intra-action and diffraction (Barad, 2007; Hultman and Lenz Taguchi, 2010) to reflect on the interplay of heightened emotions between children that also enfolded researcher reactions to open up anxieties about ethics, compassion and social justice (Davies, 2014 p.740). On the other hand, Palmer (2016) researched children's interests in tall buildings that led to ethical conversations with children about global living conditions, revealing that "Ethical questions emerge in every situation, both in research and in the preschool...We are never alone, and each moment is an ethical call." (p.296). The more recent research of Chesworth (2018) involved young children's responses to their videoed play episodes and draws attention to the uncertainties created both ethically and methodologically in working with such theories.

What new materialist and posthuman theorisations open up are new avenues of enquiry that offer alternatives frames to taken for granted approaches in thinking about how young children learn. By attending to how children relate and intra-act with the non-human world, it can bring fresh insights to curricula learning, but at the same time pose new ethical questions:

how are we mutually implicated in particular unethical practices; what practices of knowing and being are we mobilising when we choose to engage in them, or to ignore them (Davies, 2018 p.125)

#### **2.3.4. Karen Barad**

Barad's (2007) ideas posit that a lack of separation between "mind/meaning/matter/agency" has the potential to create ECE research that enables new lines of enquiry according to Urban (2016 p.114). The agency of humans and the

objects and matter they interact with has been developed in the agential realist theory of Karen Barad (2007), who proposes that materiality can be thought of as having influence and being active. Agential realism (also described as a new materialist theory) combines physics, philosophy and feminism to explore how matter and materials are understood (Hekman, 2007). Using the term 'intra-action' in preference to interaction, Barad (2007) posits that the very act of materialisation is made through relationships between humans and the matter they come across, be that in the everyday or at the macro or micro level. Within this theoretical frame concepts cannot be understood as being internal to human thought processes, but rather unfolding from the intra-actions between materials (Shotter, 2013).

However, theories that study human and non-human entanglement offer complexities to the researcher. There are practical problems of gathering empirical data where classifications of material and social are bound up together (Leonardi, 2013). Researchers such as Kraftl (2018) question how non-human matter can be thought of as having agency and consider that new materialist researchers need to take a step beyond questions of 'giving voice' to the non-human:

In other words, is the point not that some new-materialist academics are part of a wider social movement – involving environmentalists, activists, educators and young people themselves – who are pushing for alternative modes of relating to the earth, and that theoretical languages of 'agency' are simply one discursive pillar in that movement? (p. 33)

Drawing on theorisations of Barad's (2007) intra-activity, Lenz Taguchi (2010) contends that young children's learning can be understood by the way they intra-act with materials and the agentic ways the child and material both influence each other. Lenz Taguchi (2010) develops Barad's (2007) notion of intra-action into an educational frame and offers the idea of an intra-active pedagogy. Such a pedagogical frame moves attention from the interaction between humans and considers how material, space and place and also discourses can inter-relate in a "material discursive phenomenon" (Dahlberg and Moss, 2010 p.xiv). In this notion, material, space and place are seen as performative and agential in how learning is constructed (Lenz Taguchi, 2010).

The concept of materials as active and generative offers ways of thinking about ECE as

places where children's thinking occurs within and between the child and materials (Pacini-Ketchabaw *et al.* 2016). Kind (2013) recognises that young children simultaneously think and intra-act with things and so enable more respectful and ethical constructions about how humans co-inhabit a world with matter. Such attention to ecology and ethics is extended to children's deep fascination and care for small insects such as worms or ants, exploring how the learning that occurs interspecies may have important consequences in a moment in history where ecological life is under threat (Taylor and Pacini-Ketchabaw, 2015).

Through such lenses learning and knowing occur in the inter-connections and spaces in-between (Dahlberg and Moss, 2010). Intra-active pedagogies have been explored in recent Australian research into babies' experiences of mealtimes in childcare settings and consider how the highchairs, gravity and the researchers themselves all inter-connect and relate in understanding experiences (Bradley *et al.* 2012). As such, children can be understood to find learning and knowledge emerging through the in-between spaces and relational fields between the human and non-human (Hultman and Lenz Taguchi, 2010).

## **2.4. Definitions, origins and iterations of pedagogical documentation**

A contemporary definition of pedagogical documentation describes this as:

material communication tools appropriated or developed by teachers/practitioners or researchers for the purpose of recalling, reflecting on, re-thinking and re-shaping learning, teaching, knowledge and understanding. (Carr *et al.* 2016 p.277)

Pedagogical documentation is thus constructed as an educational process, where practitioners observe and document children's ideas and learning through narrative and visual methods (Kline, 2008). Documentation practices are seen as a means of understanding the quality of practice and nature of children's learning, but this discourse can be unchallenged (Alvestad and Sheridan, 2015) and also has a paucity of international research (Emilson and Pramling Samuelsson, 2014). There is also a distinction to be made between documentation and pedagogical documentation,

with the additional moniker describing further dialogic activities that develop pedagogical practice (Alasuutari *et al.* 2014; Dahlberg *et al.* 2007; Emilson and Pramling Samuelsson, 2014). Thus, emphasis is placed on the content of capturing children's learning and the process and practice of dialogic reflection (Alasuutari *et al.* 2014 p. 31; Dahlberg *et al.* 2013). Whilst some literature emphasizes the primary function of the professional learning of teachers, (Alasuutari *et al.* 2014; Picchio *et al.* 2014), other writers emphasise listening to children's voices (Reggio Children and Project Zero 2001; Schiller and Einarsdottir, 2009) and making learning processes visible (Pacini-Ketchabaw, *et al.* 2015; Wien *et al.* 2011). Hence, pedagogical documentation can be argued to have "two faces" (Knauf, 2015 p.233) by bringing children's voices to the fore but also acting to assess developmental norms. This suggests that pedagogical documentation is put to work in multiple ways and for manifold purposes, dependent on the way in which it is principally framed. Subsequently, this may explain why there seems to be much enthusiasm for the subject, but its complexity and differing applications means that there is a lack of research that demonstrates how documentation has influenced practice (Alasuutari and Kelle, 2015; Alasuutari *et al.* 2014, pp.125-126; Rintakorpi *et al.* 2014).

Pedagogical documentation has the capacity to transform practice by enabling teachers to extend understandings of the child and the requisite pedagogical practices involved (Lenz Taguchi, 2010; Rinaldi 2006; Rintakorpi and Reumano, 2016). Whilst some research points to the positive implications for participation and democratic practices, other researchers attend to more pragmatic applications for assessment and planning (Carr and Lee, 2012; Clark, 2010). Tellingly, Rintakorpi and Reumano (2016) suggest that there is little or no evidence that pedagogical documentation changes practice.

One of the most influential iterations of pedagogical documentation originates from the pre-schools of the Northern Italian municipality of Reggio Emilia (Cagliari, 2016). The evolution of this practice mirrors the wider social and political history of Italy (Lazzari, 2012) as after World War II parents built a school with a strong remit of social reform (Gandini, 2011). Reggio pre-schools have evolved from a viewpoint of the child as being competent and a person with rights (Edwards *et al.* 2012). Documentation plays a significant role within Reggio schools and is conceived as a

pedagogical tool that traces child and teacher learning processes, making learning visible through a “pedagogy of listening” (Rinaldi, 2006 p.49). The processes of making documentation are collegial and come about through dialogue “to capture subjectivities interacting” (Dahlberg and Moss, 2006 p.16).

However, the international influence of Reggio Emilia has notions of globalization (Grieshaber and Hatch, 2003). The idea of a global child is problematic in that it is narrow and exclusive, determined by economic and Westernised concerns that may well sideline many communities (Pence and Hix-Small, 2007). There has been critique of the exportation of Reggio across cultures by Johnson who posits that “the popularity of Reggio is positioned against cargo cult theory and the normative, hegemonic practices of colonization.” (2000, p.67). This suggests that transporting pedagogical approaches across cultures is complex to replicate (Basford and Bath, 2014).

Other iterations of pedagogical documentation can be found in international curricula such as the bi-cultural context of Te Whāriki ECE curriculum in New Zealand (Ministry of Education, 2017). Te Whāriki has emerged from a particular social and political context, that of a small remote island reflecting a cultural population of Māori indigenous people and European settlers (Carr *et al.* 2013). The curriculum foregrounds a socio-cultural theory of learning rather than a developmentalist approach, and focuses on processes rather than outcomes of learning (Ritchie and Buzzelli, 2012). Te Whāriki translates from Maori as a ‘woven mat’ and this metaphor is used to describe overlapping influences on the developing child such as family, community and culture, but also how the curricula principles weave together to construct the curriculum as a “mat for all to stand on” (Ministry of Education, 2017 p.10). On the one hand, Blaiklock (2010) reflects that the holistic nature of the curriculum means that subjects such as science can be marginalized. On the other hand, Dalli (2011) considers the advantages of flexibility that can encourage creativity instead of being constrained by curricula objectives.

Assessment in Te Whāriki takes a holistic perspective and teachers document narrations of learning episodes termed ‘learning stories’ (Carr and Lee, 2012). It is



significant to note that the assessment approach emphasizes the narrative of learning rather than any measureable account:

It is apparent that the New Zealand educators have rejected the view that learning is momentary and discontinuous, convergent and normative, easily measurable and quantified, a score, grade or level that children have, to varying degrees, rather than something they continuously do. (Drummond, 2008 p.14)

Learning stories emphasize social and motivational factors and are generally written in the context of the setting and addressed to the child and family (Carr and Lee, 2012). Recent research has found some discord with the notion of close teacher and family relationships when the family is not a member of the dominant cultural group that the teacher belongs to (Chan and Ritchie, 2016). Blaicklock (2010) concurs that the learning story can be valuable as a mechanism for describing children's learning but considers that they are not used effectively to develop learning. Zhang's (2017) more recent research reviewed differing perspectives from parents, practitioners and from national bodies on the purpose of learning stories within New Zealand. In this small-scale research practitioners and parents valued the broader benefits of learning stories as a means to communicate between home and school, but also in terms of developmental purposes connected to tracking progression (Zhang, 2017). Moreover, the research found that reports from the national body for assessment in New Zealand (Education Review Office) emphasised learning stories as being "the only and best approach to the assessment of learning" (Zhang, 2017 p.255). What is inferred here is that practitioners and parents are interpreting learning stories simultaneously as a means of communicating learning processes and also as a form of assessment within a developmentalist lens that runs contrary to the policy frame.

#### **2.4.1. Documentation and documentality**

Documentation of children's development and achievements are increasingly prevalent in contemporary society and constitute institutional monitoring and interventional processes across education, health and social care sectors (Alasuutari and Kelle, 2015). Documentality enables institutions to construct realities about social life and parallels can be drawn between documentality and power relationships between institutions and the individual within a society (Ferraris, 2012). The reality

that documents construct is influenced by factors such as the document's design and within educational contexts takes a view that learning can be understood and recorded. In this notion, documentation constructs a particular homogenised view of the 'learning child' that is performed by practitioners and the children themselves, thus challenging the objective nature of observational practices (Alastuuri and Kelle, 2015). However, documentation within practice such as Reggio Emilia rejects the possibility of objectivity and acknowledges the subjective nature of observation and encourages responsibility for viewpoints (Dahlberg *et al.* 2013). Moreover, documentation within the ECE sector can start before the child enters a provision, and has multiple forms and functions that codify induction, learning, reporting and monitoring processes (Alasuutari *et al.* 2014).

Critiques of documentation draw attention to the borderline between being observed, videoed or photographed and the normalization of surveillance cultures for young children (Sparrman and Lindgren, 2010). In a similar thread, Matusov *et al.* (2016) question if documentation can be seen as both an essential pedagogical tool that encourages learning through professional dialogue and "a pedagogical voyeurism, surveillance, patronizing, normalizing, subjectification, disrespecting the students' privacy and agency" (p.6). However, multi-documentation is increasingly the norm within contemporary ECE practice and in effect:

produces a documentalised childhood; this means that childhood and the child are essentially delineated, defined and produced in and by documentation. (Alasuutari *et al.* 2014 p.120)

Accordingly, documentation can have multiple functions, for example to implement curricula objectives but also more broadly as models of the social world (Rintakorpi and Reunamo, 2016). What this construction offers is a glimpse of the differing contexts and purposes that documentation can be appropriated into, but also as overlapping sets of ideas that "are neither consistent nor coherent within or between themselves" (Alasuustari, *et al.* 2014 p.124). Within this construct of documentation and documentality, teachers may be subconsciously aware of competing influences and purposes at play, and by reflecting and reviewing may enable those influences to surface and become consciously debated.

## 2.4.2. Pedagogical documentation as a material-discursive practice

Posthuman scholars such as Barad (2007) employ the term 'material-discursive' (p.146) to bring the material world into understandings of discursive practices. Lenz Taguchi explains how this thinking evolved:

The 'linguistic turn' in philosophy and social theory makes explicit language as a constituting agent through humanly constructed discourse. What we understand as reality is conditioned by collectively constructed (discursive) meaning in language. Language thus constitutes our practices and realities. The 'material' turn builds on the linguistic but goes further to include the material as an active agent in the construction of discourse and reality.  
(2008 p.12)

Barad (2007) understands discourse as being inextricable from matter and departs from scholars such as Foucault (1992) and Butler (2011): "Crucially, Butler's and Foucault's theories fail to provide an adequate account of the relationship between discursive practices and material phenomena" (Barad, 2007 p.147.) Whilst Foucault (1992) theorises that discourse is how power operates through the rules that shape and limit what can be said, Butler (2011) as a feminist theorist brings the notion of embodiment, performativity and materiality of the body: "If everything is discourse, what about the body?" (p.4). For Barad (2007), there is a causal relationship between the material and the discursive.

Subsequently in an educational context, Lenz Taguchi brings Barad's (2007) theories of the interconnected nature of material-discursive to the practice of pedagogical documentation:

Written notes and photographs as materialised and actualised events and the discursive connections of meaning that we make are intertwined in the production of knowing by means of the pedagogical documentation. There are no observations that can be objective or 'free' from the material-discursive interconnections made in the intertwined process by the observer and the observational apparatus together. (Lenz Taguchi, 2008 p.68)

Moreover, pedagogical documentation can be understood as a social construction, presenting different ideas of the child that are performed and made (Dahlberg *et al.* 2013; Liljestr and and Hammerberg, 2017). In a social constructivist reading, childhood is not perceived as naturally occurring but situated and produced within a history and culture (Alasuutari and Karila, 2010). However, Miller (2014) contends

that documentation that was framed as a celebration of diversity, instead became a means of “concealing racialising practices” (p.146). Miller’s (2014) research traced two ECE centres in their documentation of a diversity project and found differences between what was practiced and what was recorded, and asserts that documentation is a type of performance for institutions to project a certain image. Sparrman and Lindgren’s (2010) Swedish research also takes a critical stance on documentation, but this time considers children’s perspectives. By analysing television programmes designed to teach documentation methods, they found that it was rare for children’s perspectives to be taken into account and normalized children being looked upon and consistently positioned teachers as onlookers. They argue that documentation can have little positive benefits for children and it can entrench asymmetrical power relationships. Significantly, Sparrman and Lindgren (2010) posit that children’s attendance at pre-school could be interpreted as for the teacher’s sake “rather than the other way round” (p.259). Garrick *et al.*’s (2010) English review also found that children had become disenfranchised from documentation processes.

Consequently, documentation operates as both a frame to see preferred practices and notions of the child but can also silence other perspectives including the agency of the child themselves. If documentation can be framed as a social construction, then it can also be a means of tracing the discourse that underpins that construction that will include or exclude different ideas of the child (Alasuutari and Karila, 2010; Lenz Taguchi, 2010). Hence, documentation can be seen as meaningful in terms of how children are represented, but also as a means of indicating underlying discourses of childhood (Bath, 2012). Vallberg Roth (2012) thinks that documentation is “formed from certain positions, interests and perspectives and take part of how reality will be constructed and enacted” (p.4). Within this construct, documentation can create “a new discourse of visibility, meaning childhood is constructed as a place that children cannot resist documentation” (Sparrman and Lindgren, 2010 p.259). Documentation can thus be said to enable insight into how discourses are shaping and influencing images of the child within schools and settings (Dahlberg *et al.* 2013). The practice may also indicate those discourses that are silenced, and those insights may well include those of the children themselves.

### **2.4.3. Pedagogical documentation and the teacher role**

Reggio schools view documentation practices as a significant facilitator of teacher knowledge (Edwards, *et al.* 2012; Rinaldi, 2006) and enable close considerations of child learning (Buldu, 2010). More recent research emphasizes how teachers develop reflexive capacities that nurture risk, experimentation and the testing out of new ideas through their documentation (Niemi, *et al.* 2015). These “reflexive capacities” were also connected to evaluations of pedagogical practice (Picchio, *et al.* 2014 p.133). Given *et al.* (2009) suggests that pedagogical documentation can provide forms of professional development resulting in practice change and collaboration.

One of the critiques of developing documentation is how it can be time-consuming in pressured contexts (Bassford and Bath, 2014). Issues can be overcome by negotiating focused time to meet, sharing leadership and a shift from an external model to an “internal evolving experience” (Given *et al.* 2009 p.43) and contributing towards a culture change across collaborating schools.

The reviewed literature suggests that pedagogical documentation can engender professional learning but can have pragmatic limiting factors. It follows that finding a balance between teaching and observing, managing resources and making selections from large amounts of data is imperative (Buldu, 2010). Nevertheless, it can also be an economical and timely form of reflective practice that engenders professional dialogue (Niemi, *et al.* 2015). What are suggested are pragmatic issues, and if they are managed contextually they can be overcome.

## **2.5. Pedagogical documentation as an intra-active pedagogy**

A significant researcher in posthuman theoretical approaches to pedagogical documentation is Lenz Taguchi, who draws on the theories of Karen Barad’s onto-epistemology: “We don’t obtain knowledge by standing outside of the world; we know because we are of the world” (Barad, 2007 p.185). Onto-epistemology takes

the position that knowing about the world and being in the world are not separate concepts. The term “intra-active pedagogy” (p.10) is influenced from Lenz Taguchi’s close involvement with the development of early childhood and teacher education in Sweden and draws inspiration from Reggio Emilia and the democratic concepts that underpin both Reggio and Swedish societies (Lenz Taguchi, 2010 p.10). Although inspired by Reggio Emilia, Lenz Taguchi (2010) departs from perceiving materials as being instrumental in creating dispositions and shifts, to emphasising how materials can “take part in shaping ideas” (Pacini-Ketchabaw, *et al.* 2015 p.3). Within an intra-active pedagogy the attention focuses away from children and teachers’ inter-personal and intra-personal relationships and sees:

an intra-active relationship between all living organisms and the material environment such as things and artefacts, spaces and places that we occupy and use in our daily practices. (Dahlberg and Moss, 2010 p.xiv)

Lenz Taguchi considers pedagogical documentation “as a performative agent in itself” and as a “methodological tool for learning and change in any pedagogical practice” (2010, p. 10). Within this construct, documentation is active rather than passive, and behaves as a tool for observation that is shaped by both the material and the discursive (Lenz Taguchi, 2010). The term ‘material discursive’ refers to the apparatus or tools for observation being part of the process “not a thing but a doing” and “material (re) configurings or discursive practices” (Barad, 2007 p.184). What this means is that the focus is on what documentation is doing and producing as part of the intra-action between teachers, children, the matter of the environment and thus perceives documentation as a verb, or action, rather than a noun, or thing (Kuby and Gutshall Rucker, 2016). Such theorisations are influenced by Barad (2007) who draws on the physicist Nils Bohr’s quantum physics in thinking that what is observed cannot be separated from the apparatus it is observed through. Thus, within pedagogical documentation, the act of documenting cannot be separated from what is documented (Elfström Pettersson, 2017). It follows that the teacher, document and act of documenting with the materials involved are all related and entangled “we are part of the nature we seek to understand” (Barad, 2007 p.67).

Significantly, Lenz Taguchi presents the concept of pedagogical documentation as an ethics of resistance (2006, 2009). Through the making and revisiting of

documentation, it is possible to engage in a deconstruction of the underpinning theories and challenge aspects of thinking and practice that can provide a platform for resistance and forms of ethical decision making:

Deconstructive talk involves conversations that disquiet participants, throw them off balance, and toss them from their comfort zones by purposefully challenging familiar ideas and practices. (Lenz Taguchi 2008, p.272)

Kocher and Pacini-Ketchabaw (2011) contend that practicing deconstructive talk causes disruption to how power is distributed in relationships and can lead the way for ethics to have influence when professional choices are made. In addition, Roder (2011) posits that digital technology has a role to play in shaping reflection and the questioning of assumptions that occur through pedagogical documentation.

Accordingly, spaces can open up for challenge and resistance that can influence future ethical choices and seems particularly pertinent to how contemporary classrooms operate in a digital world.

Within the frame of an intra-active pedagogy, documentation has the ability to exert influence on teachers and children and thus can be constructed as a “performative agent” (Lenz Taguchi, 2010 p.10). The material involved cannot act of its own accord, but rather performs in relation with teachers and children through the process of making and revisiting documentation (Lenz Taguchi, 2010). Recent Canadian research echoes the emergence of knowledge from the intra-actions of material and discourse within the context of university education:

In the *doing* of pedagogical narrations, artefacts were produced that were not merely representations of our collaborative thinking. Rather, the artefacts that *emerged in between* the material, the discursive and the participants were themselves agentic; they invited us to shift our gaze and our conversation, and thereby new meanings and realities were produced. (Kummen, 2014 p.808)

Thus, through the lens of an intra-active pedagogy, materials are able “to perform actions, produce effects, and alter situations” (Bennett, 2004 p.355).

Pertinent to Lenz Taguchi’s (2010) theories is the notion that pedagogical documentation is an apparatus of knowing or a “methodological tool for learning knowing and change” (p.10). Documentation practice through this lens does not emphasize observations and representations of what has happened as relics of past

experiences and actions. Rather, Lenz Taguchi stresses “what it actively does or performs in relation to the pedagogical practice where it is produced” (2010 p.64). Documentation is not put to work to plan experiences that align with normalizing practice within curricula objectives, because in Lenz Taguchi’s (2010) view this is limiting and simplistic. In its place, the focus shifts to how intra-actions between children and materials influence understandings that in turn can inform more ethical pedagogies:

We should try to make ourselves aware of what happens in the events of the present and look for what *might* be possible, what emerges, and what *can* become. (Lenz Taguchi, 2010 p.177)

Critically, Lenz Taguchi’s (2010) construction of pedagogical documentation does not address how teachers operationalise this kind of inventive attention to practice within contexts that emphasize observation as a means of tracking developmental norms, such as within the English policy context (DfE, 2017). These two ideas can appear contradictory and are not addressed by the author, however this way of thinking needs to be seen in relation to its Swedish context that does not have the same positioning in relation to assessment practice as England. Thus, to import this approach again would be an example of colonialization in much the same way that Reggio is critiqued when it is transplanted across cultures (Basford and Bath, 2014; Johnston, 2000). Moreover, how documentation can be operationalized as both an exploration of learning processes and as an assessment tool will in turn produce two possible contradictory actions that may act in parallel, but also inevitably relate and intra-act with each other. Furthermore, the actions and materials involved might enable or restrict ethical and multiple readings of children’s learning. Also at work in such readings would be discourses in the policy context operating both consciously and subconsciously.

### **2.5.1. Pedagogical documentation as agentic**

Agentic readings of documentation open up new fields of research about how the social and material relate (Alasuutari and Kelle, 2015) and in addition can enable a revision of how human agency is considered (Alasuutari, *et al.* 2014).

Taking Lenz Taguchi’s (2010) conceptions of agentic materials within documentation processes as a starting point, Elfström Pettersson’s (2015) Swedish research



emphasizes children's participation. Her research demonstrates how the materials of documentation, such as cameras and photographs, relate to the social world of teachers and children. Pedagogical documentation in Elfström Pettersson's (2015) research is framed from how the materials involved, such as photographs and labels, exert agency. Her findings suggest that the materials have the capacity to condition narratives. Firstly, she posits that large photographic projections of a past activity when shown to a group of children and teachers regulated and influenced conversations. Secondly, when teachers attached labels (in the form of sticky dots) to documentation to denote curriculum coverage, the labels acted as a mechanism for ascribing value or what lacked value by omission. Through an agential realist frame, an intra-action (Barad, 2007) of teacher, child, document and label ascribes meaning and worth where children and teachers' perceptions starkly differ. More variety of labels denoted value for teachers because it represented richer curricula coverage and conversely children perceived a lack of labels negatively.

Similarly, more recent researchers such Merewether (2018) have applied new materialist theory to documentation practice in attempts to find ways to listen to children in their outdoor play experiences. Notably, Merewether (2018) considers that not all elements in the outdoor play assemblage had equal agency and the camera she employed as a means to listen to children's ideas appeared to have more influence on children's actions, much in the same way that Elfström Pettersson's (2015) sticky dots seemed to hold supplementary power. Furthermore, both Elfström Pettersson (2015) and Merewether's (2018) research omits scrutiny of how material and human agency relate and what role power plays in relations between adults and children. Merewether (2018) does indicate an imbalance in how agency is distributed "The relations are asymmetric, such that matter as well as other agents sometimes exerts more and sometimes less agency" (Änggård 2013, p.2 cited in Merewether, 2018 p.15). What this infers is some potential weaknesses linked to new materialist and agentic notions of documentation processes. However, benefits lie in illuminating the ways agency is distributed across classroom assemblages in taking account of the influence that materials have in how narratives are negotiated and meanings ascribed.

In addition, Pacini-Ketchabaw *et al.* (2015) studies the agency of documentation materials in their collaborative Canadian project Investigating Quality (IQ). By adopting the term pedagogical narration (as opposed to pedagogical documentation) they distance their investigation from North American practice, dismissing this as “McDonalised” (p.120). Pacini-Ketchabaw *et al.* (2015) contend that pedagogical documentation is over-simplified in North American practice as it omits or resists the political and radical intentions of Reggio inspired practices. Similarly, Olsson (2008) posits that documentation practices can simplistically retell learning events by restating what is known, that in effect reveal little new knowledge.

Pedagogical narrations emphasize collaboration between academics and practitioners in exploring alternative theoretical ideas that question prevailing orthodoxies (Pacini-Ketchabaw *et al.* 2015) and constitute ethical methodologies (Hodgins, 2012; Hodgins *et al.* 2017). The emphasis in pedagogical narrations is shaped by the political context and seeks to challenge school readiness discourses and also put to work anti-racist and post-colonial theories (Pacini-Ketchabaw *et al.* 2015 p.xiv).

The agency that materials have in the process of pedagogical narrations act to create effects and as a result, cause teachers to reposition their point of view through the liminal spaces that open (Kummen, 2014). Documentation in this narrative frame is a materialization of intra-active phenomena:

learning is a collaborative process of meaning-making that takes place between human subjects, their bodies and things, in specific places and spaces around questions and problems arising in the moment or event or investigation, constituting an important turning in the event. This makes the teacher...change the material conditions of her practice, sometimes in the midst of the process, and sometimes after having read and analysed the documentation afterwards. (Lenz Taguchi, 2010 p.90)

The advantages of pedagogical narration lie in collective conversations that focus on the socio-material and actively contribute towards pedagogical knowledge by a “materialising apparatus of knowing” (Pacini-Ketchabaw *et al.* 2015 p.138).

Conversely, opening up dialogue around alternative pedagogies that question “pre-existing guidelines that define good practice” (Pacini-Ketchabaw *et al.* 2015 p.193) do

not go on to provide explanations of how teachers get a foothold outside of an academic professional network and therefore may prove exclusive.

'Lively stories' (van Dooren, 2014 cited in Blaise *et al.* 2017 p.36) is an ecological variant of pedagogical narration attending to the interrelationships between children, teachers, other species and the natural world:

The lively story shows how teachers might engage with the multiple entanglements that are always a part of the common world they share with more-than-human others. (Blaise *et al.* 2017 p.36)

Similar ideologies are found in the Common Worlding research (Taylor and Pacini-Ketchabaw, 2015) that proposes forms of observational practice inspired from Latour (2004) in studying what concerns practitioners. By taking such a stance, lively stories enable a shift from observations as "apolitical, distanced and judgemental" to practices that engage in political and ethical enquiry (Blaise *et al.* 2017 p.31). In effect, lively stories position ECE within wider political debates and engage global environmental issues that promote protection of the natural world, echoing Latour's (2004) counsel of repositioning "matters of fact" to "matters of concern" (p.225). Empowering teachers' agency to observe what is of political and ethical concern within their community, frames documentation as a resistance to normalization (Lenz Taguchi, 2008).

In summary, agentic readings of documentation practices can vary in scope between everyday classroom enquiries to more far-reaching global concerns, which may go some way to answer Kraftl's (2018) call for a wider societal application of new materialist theories. The emphasis in both Elfström Pettersson (2015) and Merewether's (2018) research is what the materials involved in documentation, such as cameras or labels, can do. Materials exert agency and can influence narratives in how value is ascribed, but this agency is asymmetrically distributed between materials and holds differing values to children and adults. On the other hand, how the agency of materials engages with wider political and ecological discourses outside of daily practice concern both Pacini-Ketchabaw *et al.* (2015) and Blaise (2016). Discourses are plugged into by the creating of "artefacts" or spaces in the socio-material, causing shifts in the gaze that enable productions of new meanings

(Kummen, 2014 p.808). Hence, socio-material studies of documentation offer possibilities to trace how agency is dispersed across human and non-human elements in classroom practice and can be broadened to incorporate openings for teachers to participate in broader communal discourses.

Moreover, there are some gaps in the literature that study the social-material and agentic nature of educational materials that arise from “everything being connected, without adequately addressing the complex structure of connectivity” (de Frietas, 2017 p.6). Through the act of charting relationships, inter-relationships and intra-actions the question raised is what is left unattended and under-examined. As a result, what might be neglected from the current set of literature concerns the involvedness and asymmetrical nature of agency within documentation’s social-material intra-activity.

### **2.5.2. Pedagogical documentation as an apparatus of knowing**

Pedagogical documentation is able to capture moments of intra-activity that make possible new learning and thus constructs “a materializing apparatus of knowing” (Lenz Taguchi, 2008 p.9). Perceiving pedagogical documentation as a materialization of knowledge reasserts its agentic potentialities and ability to produce phenomena such as professional knowledge (Alasuutari, *et al.* 2014). This suggests an important way for teachers to produce knowledge, re-theorise practice and develop new understandings:

Pedagogical documentation can be used in a way that makes it possible to understand it as making practice material for us to engage in further entanglements with and become different in ourselves as teachers – *being transformed in our new phenomenon of knowing and becoming-with practice, which makes practice real in a new way.* (Lenz Taguchi, 2010 p.88)

Olsson concurs with this view and states that documentation “becomes a vital material that can be used as a tool in the process of learning” (2009, p.113). In addition, she considers the vitality of the process and describes this as “a living and collectively constructed material”, that invites experimentation, rather than any factual representation of events (Olsson, 2012 p.x). Furthermore, this reflects back to Lenz Taguchi’s (2009) view that it is possible to breach the divide between theory and practice through documentation processes, suggesting that teachers are continually

able to look and think about practice through the writing and revisiting of ideas, that in turn can nurture experimental approaches. Young children seem naturally able to respond to this experimentation:

children when allowed to, seem to even a certain kind of intense, undomesticated, and vital experimentation rather than looking for any kind of permanent and stable knowledge. (Olsson, 2012 p.89)

Kocher and Pacini-Ketchabaw (2011) assert that there is a potential for ethical practice through professional dialogue that challenges pre-conceived assumptions about children, for example in terms of gender. This resonates with the framing of pedagogical documentation as an “ethics of resistance” where it becomes possible to disrupt how assumptions are made:

Resistance here is not about opposing or simply replacing one understanding with another. Rather, it is about a continuous process of displacement and transformation from within what we already think and do... such resistance is a professional enactment of ethics. (Lenz Taguchi, 2008 p.272)

Conversely, resisting assumptions through pedagogical documentation is complex in practice. Palmer’s (2010) research attends to how documentation practices enabled a “slowing down movement” for a student teacher to reconsider ideas, and through this process enacted a “speeding up movement” (Lenz Taguchi, 2010 p.95), where creative ideas could then be explored taking learning in new directions. However, Palmer’s (2010) research also revealed the complexity of challenging assumptions such as gender norms and their relationship to mathematics. Similarly, there are parallels with action research that asked ECE teachers and a researcher to enter deconstructive talks around documentation involving the analysis of children’s drawings (Lenz Taguchi, 2008). Deconstructive talk involves questioning biases and assumptions and draws from Derridean theory (1996) and can be used to uncover influential childhood discourses by examining ideas that are often “taken for granted” (Lenz Taguchi, 2008 p.270).

The benefits of using pedagogical documentation as a tool to challenge assumptions through deconstructive talk enables teachers to deepen questioning with particular children, previously viewed as “lacking” or having a “special need” (Lenz Taguchi,

2008 p.280). Nonetheless, the research uncovered that teachers initially resisted critiquing their own assumptions as it proved unfamiliar and unsettling. In response to this the researcher actively addressed and shared the resistances she had encountered and Lenz Taguchi (2008) argues that is enriched the analysis. Accordingly, it is possible to open up dialogue through pedagogical documentation about such issues as gender and mathematics or resisting normalizing practices, but it does not emancipate bias and assumptions that may govern teachers thinking and practice. Rather, Lenz Taguchi (2008) draws attention to the possibility that pedagogical documentation can cultivate sensitivities and ethical dimensions to professional dialogue.

### **2.5.3. Pedagogical documentation in time and space and its relevance to the concept of *spacetime mattering***

Influenced by Barad (2007), concepts such as space and time are relevant to agentic readings of documentation “objects, bodies and space are entangled material agencies” (Taylor C. 2013 p.688). Space is not empty and waiting to be filled in this construction, but is socially constructed, dynamic and relational (Leander and Sheehy, 2004). Human geography studies space and theorises it as “the sphere of relations, negotiations, power in all its forms” (Massey, 2005 p.99, cited in Taylor, C. 2013 p.689). Space is also a theme in childhood geography research that posits that spatialities as well as discourses influence childhood and as such co-constitute and shape children’s lives (Kraftl *et al.* 2012).

Place-making for children can be thought of as a social and political act, constructing and disrupting dominant discourses that influence childhood experiences (Jones *et al.* 2016; McNamara and McNicholl, 2016). The entanglement of material, discourse and humans within school environments can influence and construct pupils’ ill/wellbeing and attention to how these elements relate can help form an understanding of what produces a liveable school environment (Lenz Taguchi and Palmer, 2013 p.671). In the same way, place is related to discourses of disadvantage and poverty and therefore place can be thought of an element involved in raising aspiration in communities, according to researchers such as Somerville (2013).

Community spaces made for children incorporate notions of social justice and are bound up with “sociopolitical ideologies of their time/space” (Jones *et al.* 2016, p.1153). However, research undertaken in community rather than school contexts, such as Jones *et al.* (2016), will not address the power structures at work through curricula texts and assessment requirements that might influence how ideologies are formed. Furthermore, place is associated with fostering senses of belonging in educational contexts according to researchers such as Pacini-Ketchabaw *et al.* (2015) and Taylor and Pacini-Ketchabaw (2015). Consequently, pedagogies are bound to classroom spatialities and as such the subversion of certain discourses occurs “within and between the spaces where children’s lives happen” (Seymour *et al.* 2015 p.1). In turn, classroom spatialities are a “vibrant, social-ecological-material-affective-discursive ecology” (Pacini-Ketchabaw *et al.* 2016 p.2). Classrooms are thus assemblages of human and vibrant non-human elements whose forces and forms shape pedagogies:

Pedagogies of places negotiate flows and create spaces where matter, desire, human and more-than-human come together to modulate the self in relation to the world. (Duhn, 2012 p.104)

Time is not separate from conceptions of space and matter and according to Barad “Matter doesn’t move in time. Matter doesn’t evolve in time. Matter does time” (2013 p.16). The term *spacetime mattering* explains the space, time, matter entwined:

the past was never simply there to begin with and the future is not simply what will unfold; the ‘past’ and the ‘future’ are iteratively reworked and enfolded through the iterative practices of spacetime mattering (Barad, 2007 p.315)

There are a small number of ECE scholars who have worked with concepts of *spacetime mattering* in relation to documentation practices (Elfström Pettersson, 2018; Kummen, 2014; Murriss, 2016). Murriss (2016) argues that the relations between materials and human dialogue make documentation possible. Notably, Murriss (2016) considers that time has a role to play for teachers in understanding how their current constructions of childhood relate to how future constructions are made. By diffractively reading existing constructions of childhood through possible future constructions of childhood, the new can be created through material-discursive

practices (Murriss 2016). Recognising the role time plays during documentation practices acknowledges historical intra-actions of the teacher through time, which is contrary to the idea that documentation practice is about observation from a distance. Documentation is not reflective in this construct, but rather “knowledge practices have material consequences” and “practices we enact matter- in both senses of the word” (Barad 2007, p.91). Similar to Murriss (2016), Elfström Pettersson (2018) works with concepts of *spacetime mattering* and considers the possibilities of documentation enacting rather than producing a concept such as quality. She argues that a richer and multitudinous view of quality is enacted when past constructions are enfolded into present notions and thus enables a “vantage point” to consider future practice developments (Elfström Pettersson, 2018 p.1). In addition, Kummen (2014) makes the connection between the practice of pedagogical narration and the concept of time. She uses *spacetime mattering* as a way of thinking about how documentation practices can create new knowledge through a conflation of teacher, students, documentation, all happening within a time and space. So, in this construct Kummen (2014) cites Barad in an interview stating that:

performing the labour of tracing the entanglements of making connections visible, you’re making our obligations and debts visible, as part of what it might mean to reconfigure relations of spacetime mattering. (Juelsjkaer and Schwennesen, 2012 p.20)

Both Murriss (2016) and Kummen (2014) draw attention to the material-discursive potential of documentation being understood as a conflation and tracing of a teacher’s historical intra-actions. Thus, the locus of new knowledge relies on the capacity of the teacher to recognise and be open to new possible readings, suggesting the guide of another experienced voice that may go beyond the reach of most everyday teaching practices.

Concepts of place, time and the neologism of *spacetime mattering* (Barad, 2007, 2013) can bring a way to consider the agency of documentation as being in relation *to* and intra-active *with* a vibrant assemblage of multiple human non-human elements in the ECE classroom, where space and time also have a vital role to play. Understanding a place as a space and time that intra-acts with discourses, along with the human and non-human assemblage of furniture, architecture and educational materials all have a



role to play in shaping children's lives. Such constructs support understandings of what shapes a school environment that can be liveable for children and teachers. Documentation is created within this complex assemblage and consequently behaves as a manifestation within a *spacetime mattering* (Barad, 2007, 2013), and thus concepts of time and space need to be taken into account as part of the forces that contribute to the notion of documentation being agentic. In the *spacetime mattering* (Barad, 2007, 2013) of the classroom, all elements have an agentic role, and documentation is just one of those forces at work in the vibrant materiality of ECE.

## **2.6. The potential of viewing pedagogical documentation through posthuman and new materialist theorisations**

Lenz Taguchi (2010) considers that pedagogical documentation is performative and can be a professional learning tool that can inspire change. A material-discursive reading asks the question of how documentation can act as a tool, and in what ways this is manifested. However, this is a largely unchallenged discourse (Alvestad and Sheridan 2015) and there is limited evidence about how this is revealed in practice (Rintakorpi and Reumano, 2016). The globalization of approaches (Grieshaber and Hatch, 2003) that have led to claims of colonialism could mean that localized concerns are marginalized and become a kind of pastiche that does not address a critical engagement with underlying discourses (Pacini-Ketchabaw *et al.* 2015). In summary, the selected pieces of research that have considered material-discursive readings suggest a range of differing perspectives on what the tool of pedagogical documentation performs or can do, and I have summarized these into the three following questions that can inform the research enquiry:

*How does pedagogical documentation act to resist?*

*How does pedagogical documentation act to create?*

*How does pedagogical documentation act on ethics?*

### 2.6.1. Pedagogical documentation acting to resist

Pedagogical documentation can act as a form of resistance, by enabling teachers to deviate from the expected in their interpretations (Kuby, *et al.* 2015) and thus disrupts views of the child (Kummen, 2014). Constructing space as a social and political act can disrupt and subvert discourses (Jones *et al.* 2016; McNamara and McNicholl, 2016; Seymour, *et al.* 2015). Conversely, it could be argued that constructing a classroom space can also have the capacity to oppress if the space does *not* act against discourses. Notably, Markström (2015) found that children themselves use documentation to resist how adults viewed them, in terms of deciding what documents to share with their parents and thus rejecting how school defines them. When resistance is not attended to, it could be said that narratives are conditioned (Elfström Pettersson, 2015). Lenz Taguchi (2010) frames pedagogical documentation as an ethics of resistance through teachers' deconstructive talk and Kocher and Pacini-Ketchabaw (2011) claim that this practice can disrupt power relationships between children and teachers.

However, what seems under-theorized is how pedagogical documentation creates a 'slowing down' space (Lenz Taguchi, 2010) that can harbour deconstructive talk and acts of resistance and in what ways this shifts thinking and practice (Kocher and Pacini-Ketchabaw, 2011). In particular, this seems pertinent where teachers are hesitant to question convictions (Lenz Taguchi, 2009) and work largely outside of professional networks where pedagogical documentation could provide space for dialogic talk.

How pedagogical documentation intra-acts within inconsistent and incoherent multi-documentation practices is an important question (Alasuustari *et al.* 2014). In contexts where documentation is sidelined because of pressurized working cultures, the ways teachers develop spaces for such practices might support them acting to resist by developing a stronger type of professional knowledge (Basford and Bath, 2014). The identification of what constitutes *spacetime mattering* (Barad 2007, 2013) is prescient and has the potential to help understand spaces where resistances might occur that in turn, could engender the sorts of professional knowledge that Basford

and Bath (2014) contend will support teachers in the playing of the “assessment game” (p.119).

However, in order to understand how documentation can resist, *who* is researched is not a straightforward question to answer. Reading pedagogy in this way goes outside and beyond individual children’s developmental trajectories. In fact, ECE posthuman theory rejects child-centred notions, instead recognises children operating within a childhood that is “complex, mixed-up, boundary blurring, heterogeneous, interdependent and ethically confronting” (Taylor A *et al.* 2012 p.81). Therefore, the *who* of the researched world needs to accommodate assemblages of people, matter and material of education that is sited within multiple contextualisations of childhoods (Sellers, 2013). A nuanced analysis of how resistances occur will need to resist any homogenised reading of childhood to reflect these complexities.

### **2.6.2. Pedagogical documentation acting to create**

The reviewed literature suggests that agentic readings of documentation are associated with creating pedagogical actions that can be productive to the teacher and support working cultures that encourage new ideas and meanings (Kummen, 2014; Lenz Taguchi, 2010; Pacini-Ketchabaw *et al.* 2015). Reading through a material-discursive frame causes teachers to “shift the gaze” (Kummen, 2014 p.808) and encourages a complexification of learning (Elfström Pettersson, 2014; Pacini-Ketchabaw *et al.* 2015). Olsson asserts that documentation practices encourage investigation and experimentation but harbour the danger of simply retelling rather than creating new knowledge (2009, 2012).

Furthermore, new materialist theoretical lenses bring notions of space and time into the equation. *Spacetime mattering* (Barad, 2007, 2013) is a broad brushstroke term that captures some of this thinking, as documentation is constructed and inhabits a more than human world that does not play out in a vacuum. As such, children’s lives are shaped by discourses and spatialities (Kraftl *et al.* 2012) and have the potential to illuminate how senses of belonging are fostered (Pacini-Ketchabaw *et al.* 2015), aspiration is understood (Somerville, 2013) and can help understand what constitutes

liveable schools (Lenz Taguchi and Palmer, 2013). Thus, the reviewed literature suggests that when documentation acts to create, a wider set of influences are apparent, and space and time are constituent in these actions.

In addition, *how* research is undertaken within ECE posthuman theorisations has no fixed approach and is thus methodologically complex and can leave researchers without a steer (Fairchild, 2016). As well as a lack of methodological clarity, there seems to be an element of exclusivity in how some research is presented in the grammar and stylistic conventions such as the crossing out of words and the use of tildes to connect words. These quirks have been designed to explain ideas outside of conventional constructs, for example a phrase such as ‘learning~living’ attempts to show a dualism and the blurring of boundaries (Sellers, 2013 p.6). However, this could layer further complication and obfuscation in an already complex field that will need guarding against in this research.

### **2.6.3. Pedagogical Documentation acting on ethics**

The complexities and ambiguities that surround ethics is perhaps the most complex question the literature has revealed. If indeed pedagogical documentation can bring about situations where teachers can focus on “matters of concern” rather than “matters of fact” (Blaise *et al.* 2017; Latour, 2004 p.225) this could bring kinds of moral and ethical practice to the fore (Basford and Bath, 2014; Palmer, 2016; Pacini-Ketchabaw *et al.* 2015). Latour (2004) argue that “Reality is not defined by matters of fact” (p.232).

However, ethical practices are situated and contextualized to particular teachers, schools and policies. It seems the larger body of research literature poses some ethical questions in regard to how children are positioned as marginalized, patronized, disenfranchised, and supporting a culture of surveillance (Bath 2012; Blaiklock 2010; Matusov *et al.* 2016; Sparrman and Lindgren 2010). These are serious accusations and beg the question of how any material-discursive investigation of the way pedagogical documentation acts on ethics can meaningfully illuminate teachers’ and children’s worlds. Certainly, a question that arises from the literature (Blaise *et al.* 2017; Latour, 2004) is the identification of what matters to children and how

material-discursive approaches can identify what matters to teachers or conversely, where the matters of concern disconnect.

Material-discursive approaches that bring the non-human into research processes open the question of *what* is researched through an intra-active lens and begs the questions of how materials find a 'voice' (Kraftl, 2018). Conceiving of documentation as being agentic requires pragmatic approaches and perhaps explains why posthuman researchers often look more to art-based practices (Taylor, 2016). Thus, finding a research language that can give a sense of what actions and roles documentation practices take may well mean exploration of non-traditional approaches. In addition, ethical uncertainties open up with new materialist approaches to ECE research (Chesworth, 2018) and thus it is imperative to attend to what ethical questions are created when extending the boundaries of research into the non-human world.

## **2.7. Concluding comments**

The review of the literature has addressed the potential of posthuman theories (and in particular new materialist readings) to understand the agentic nature of documentation practices. Agentic and performative readings of documentation can enable the work and influence of the more than human world to be illuminated in pedagogical practices that also encompass the spatialities and temporalities of the classroom. By applying the construct of intra-action, documentation can be perceived as being able to exert influence as a "performative agent" (Lenz Taguchi, 2010 p.10). Consequently, this can enable new fields of enquiry to open up that emphasises what documentation does, rather than what it means. However, the literature also points to the theoretical complexity and exclusive language that can render it inaccessible. Further complications arise for teachers navigating documentation practices outside of support networks that are continually reacting to policy intensification and involve complex assessment practices that have been theorized as a kind of game (Basford and Bath, 2014).

Furthermore, the literature points to the limitations of materialist studies in shedding light on how power is assymmetrically distributed within spatialities (Elfström

Pettersson, 2015; Merewether, 2018) and within working cultures that have been associated with surveillance of children (Sparrman and Lindgren, 2010). In addition, new ethical and methodological questions are opened up in using social-material lenses in educational practices (Chesworth, 2018).

Hence, the enquiry of looking to the intra-actions that are generated from documentation will need to be rooted in the English policy context of the “assessment game” (Basford and Bath, 2014 p.119) but also look to how the materiality of documentation relates to and is acting upon the discourses at work. Through this enquiry, I hope to illuminate how agential readings of documentation can reveal spaces where teachers’ gameplay within assessment discourses that take account of the *spacetime mattering* (Barad, 2007, 2013) of the classroom.

# Chapter 3 Methodology

## 3.1. Methodological framework

The methodological framework that provided the foundation for this thesis was guided by a fascination in how pedagogical documentation could be seen as having agency. When I visited Reggio Emilia and saw pedagogical documentation in 2010, it struck me that it was more than an aesthetic capturing of learning processes. It is often described as 'giving voice' to children (Rinaldi, 2006) but voice seemed to me to be only one aspect at play. I knew it was significant to teachers' professional development, but it struck me as something more than that. In my own practice I explored the potential of the approach with teaching undergraduates but found I couldn't gain traction with isolated approaches (Anderson and Albin-Clark, 2013). It felt like a transportation of ideas rather than a translation and interpretation that I was seeking. However, I began to read more deeply in my doctoral study and found posthuman theorizing to explain something of how documentation was acting within the creating, reflecting and sharing of documentation. The research enquiry began to crystallize. I started to think about pedagogical documentation as an action, and this led me to consider what actions were happening and who and what that involved.

New materialist thinking has a foundation in the material turn in feminist theory that attempts to deconstruct the material and its relationship to the discursive (Alaimo and Hekman, 2008 p.6; Gannon and Davies, 2012). Accordingly, attention shifts to how the material of pedagogical documentation is embodied and acts upon underpinning discourses. Aligning with feminist theory enabled me to explore and make heard the voices of female research participants who educate young children, whose views have been traditionally excluded and marginalized in wider educational research. Furthermore, this approach takes a broader view of what constitutes voice, and includes imagery, other sensory data and materials created and selected by participants. As the theoretical positioning moves away from the human as the primary focus, the enquiry considers other factors beyond voice and language that

form part of the wider intra-action between the human and non-human participants (Mazzei and Jackson, 2017 p.1090). The choice of one case study school that is located in an area of high social disadvantage is another indication of an attempt to seek marginalized voices. Thus, the identity and gender of the participants and the location of the research align with feminist research theory and methodologies that “place women’s lives and those of ‘other’ marginalized groups at the centre of social inquiry” (Hesse-Biber, 2012 p.3). Such a theoretical approach enabled a consideration of how the material of pedagogical documentation illuminates different kinds of knowledge that supported the research questions.

New materialist theorisations contain two main ideas that enable a consideration of pedagogical documentation as being agentic. Firstly, in Barad’s (2007) theorization materiality is considered to be performative, as material and the discursive are seen to be intra-acting with each other. Barad coined the term ‘intra-action’ to signify something distinct from interaction. Whilst interaction suggests two separate entities relating to each other, intra-action points to how agency emerges from intra-action (2007). Moreover, this is relevant to the research questions as the intra-actions between documentation and the human and non-human elements within and without the school buildings are significant.

A second important influence was the idea of apparatus, which is discussed in more detail in chapter 2. Lenz-Taguchi (2010) takes Barad’s (2007) concepts of intra-action and the material-discursive and theorises it as an intra-active pedagogy that places pedagogical documentation as a material-discursive apparatus. Conceptualizing pedagogical documentation as an apparatus of knowing recognises the interconnected nature between what is documented and the way in which it is documented (Elfström Pettersson, 2017). Within posthuman methodologies, scholars such as Taylor (2016) call on researchers to experiment, invent and create (p.18). Thus, I have interpreted Elfström Pettersson’s (2017) theorisation by analysing how teachers talk about and put to work their documentation practices through a diffractive analysis, as an alternative to directly observing the affordances of documentation in situ. Through this approach, I was able to consider the kinds of pedagogical knowledge that were valuable to teachers. As a result, this



methodological framework enabled me to consider pedagogical documentation as a tool that produced different kinds of knowledge, that in turn illuminated the pedagogical practice of where it was produced (Lenz Taguchi, 2010).

Consequently, the concepts of intra-action and apparatus are frames about how documentation acts. In the same way this theoretical frame enabled documentation to be seen as agential and have real kinds of affect and influence. The research questions therefore attend to what sort of affects that intra-action have:

Consequently, realism is not about representation of something substantialized or something that is already present as the difference between subject and object, between materiality and discourse. Realism is about real effects of intra-activity. And these effects become elements in further ongoing intra-activities. (Højgaard and Søndergaard, 2011 p.346)

In the case of the methodological frame, agency is considered to be produced *in-between* teachers and the material of documentation. Moreover, this represents a paradigmatic shift, as “more than human ontologies” (Jackson and Mazzei, 2012) recognise that the intra-actions between humans and non-humans can create knowledge and realities (Kuby, 2017 p.877). Therefore, there were methodological difficulties around this frame, as it moved away from human and language-centred approaches and this means that traditional methodologies offer little guidance (Bennett, 2016). Kuby (2017) considers that there are new perspectives possible when the entanglement between interaction and intra-action with materiality is considered:

Agential realism is an epistemological and ontological framework that extends Bohr’s insights and takes as its central concerns the nature of materiality, the relationship between the material and the discursive, the nature of “nature” and “culture,” and the relationship between them, the nature of agency, and the effects of boundary, including the nature of exclusions that accompany boundary projects. (Barad, 1997, p.89 cited in Alaimo and Hekman, 2008 p.103)

Adopting an onto-epistemological position means I acknowledged my own role, relationships, data collections tools and actions contributed to and influenced the production of knowledge. Another dimension is then brought into the researcher role and will be discussed in the later ethical sections in this chapter. The conduct and relationship between myself and the participants had an important ethical

foregrounding (Taylor and Ivinson, 2013). Thus, the researcher role entangled with the research itself and requires an ethical practice that has been described as “intertwining of ethics, knowing and being” and the term “ethico-onto-epistemology” describes this (Barad, 2007 p.185). Current methodological approaches termed ‘more than human’ ontologies have evolved from this positioning (Jackson and Mazzei, 2012; St. Pierre, 2011, 2013; Taylor and Hughes, 2016).

The interest in ‘more than human’ ontologies lies in understanding the intra-actions or agentic-in-between-ness of humans and non-humans in producing knowledge(s), relationship(s), and reality(ies). Agentic-in-between-ness-enacted agency- is the relationship between humans and non-humans in producing newness (Barad, 2007). The agency doesn’t lie in the human (nor the nonhuman) but in the in-between-ness of humans with the material world. Reality(ies) is more than humans. This is a paradigmatic shift.  
(Kuby, 2017 p.2)

Hence, the methodological positioning takes account of what happened in-between the participants and the documentation within the spaces of the case-study school and what resulting knowledge, relationships and realities were created. It follows that the selected theoretical positioning does not ask an interpretative question about what pedagogical documentation means, but rather enquire into how documentation works and what is produced through that work (Lenz Taguchi, 2012).

The following section describes the methods I adopted in order to consider these particular relationships between the humans and non-humans engaged in the practice of pedagogical documentation.

## **3.2. Research methods**

I employed two main data collection methods with three teachers from the same school and the Nursery teacher acted as a main participant. The first method was a series of five interviews over a six-month period in 2017. I reframed the interview as an *intraview* (Kuntz and Presnall, 2012; Petersen, 2014) and this took place with the primary research participant. I also conducted two single intraviews with two other participants who were members of staff at the same school in this period. A second

online data collection method was employed with the primary research participant and this spanned across the data collection period.

### **3.2.1. Intraviews and visual prompts as methodological tool**

In the spirit of posthuman onto-epistemological methodologies, I let the research approaches unfold and enabled the research to emerge in the moment, to try and make sense of knowing through the research event itself (Taylor, 2016). As a result of this, I gave the participants opportunities to decide what constituted pedagogical documentation and to share their self-chosen examples. Posthuman scholars, such as Bennett, describe this as following “the scent” (2010 p.xiii). It followed from this that the participants’ and my own fascination with aspects of the chosen pedagogical documentation also directed our enquiries.

I chose the term *intraviews* (Kuntz and Presnall, 2012; Petersen, 2014) instead of interviews, as this term described posthuman interpretations of traditional methods. This distinction is rationalised in more detail later in this section. In addition, I was keen not to have any set questions and hoped that this might enable the participants to be led by their choices and so provoke further discussions and reactions. In practice, this meant that each data collection event consisted of participant chosen documentation and related text. Different types of pedagogical documentation were selected as a focus for each data collection event, chosen by the participant (see appendix B, F).

Alongside the intraviews, a second data collection method was employed with the primary research participant that involved an on-line closed blog. Initially this was created as a forum to share thinking and reflections in between face-to-face data collection and was viewed as a shared research journal. Yet as the blog became established when each of us responded to each other’s postings, it became an experimental space where the primary research participant took more of the lead in deciding what and when to post echoing Bennett’s (2010) advice about being attentive to what fascinates as an approach to data generation.

Furthermore, after starting the data collection my reading around posthuman methodological frames began to uncover uncertainties. Although I attempted to allow research approaches to emerge, which is line with posthuman theorising (Taylor, 2016), I still find the data collection felt loaded towards the human participants and the language they used. Moreover, this raised questions about how adopting posthuman approaches can feel uneasy, as there are few methodological footholds (Taylor, 2016). In order to decentre the anthropocentric and logocentric, I shifted my focus to the intra-action between the human participants and the materials of the documentation and the emerging digital information of the blog. Consequently, the data included intraview transcripts and copies of the pedagogical documentation that prompted those research conversations, but also another level of meta-data that discussed affects and responses to the initial data collection that in turn influenced the next round of data collection. I envisaged this as an intra-action between these sets of data. In the next section I outline how the research sample was identified and the location of the face-to-face data collection.

### **3.2.2. Selecting a sample and location**

As the research enquiry was about the ways in which pedagogical documentation had agency, I approached schools working within the English policy context (DfE, 2017) experienced in documentation practices, and who used documentation on a daily basis. I worked primarily with a main research participant to get an in-depth perspective and I opted to recruit from my own professional networks to select the participant school. The advantages of this are that I benefited from the participant's in-depth working knowledge and perspectives upon documentation (Beitin, 2012) and as the participants were known to me beforehand, they were found to be more prepared to commit to the research plan. Though this was balanced with the disadvantages of electing participants with whom one has existing professional relationships. They may suppress or exaggerate aspects of practice in order to impress or focus on what makes themselves appear in a more positive light (Fielding, 1994).

I discussed my doctoral research with a former colleague from a local authority who had since become a Nursery teacher and she expressed an interest in being involved.

This particular Nursery teacher was approached as she used documentation in her daily practices and had developed learning stories based on the New Zealand conceptualisation of pedagogical documentation that employs narrative and visual elements (Carr and Lee, 2012). In addition, the Nursery teacher had professional development on pedagogical documentation from her time as a local authority advisor that meant she had a comprehensive knowledge and understanding of statutory assessment requirements. After I shared the detail of the project, she consented to be the primary research participant (see Appendix E). The head teacher and Reception teacher also consented to be participants and this enabled me to get a sense of how pedagogical documentation acted within a school context (see Appendix A).

The location for the intraviews was arranged at the participants' request to be on the school site and at times they elected. Likewise, this was important to the participants as it made it more convenient but also had the benefit of it being on their own territory, which contributed to them feeling more at ease. I planned to gather data from the primary participant on 4-6 occasions and with the secondary participants with a single intraview each and this was completed between May and October 2017. The main research participant was promoted to Deputy Headteacher towards the end of the data collection period, so the last data collection was based on her retrospective practice.

### **3.2.3. Participant school context**

The participant primary school shared a site with a children's centre and other community services and was a new build that opened in 2011. It is average sized, admits children aged three to eleven years and situated in a local authority in north west England characterised by high social disadvantage. As described in the most recent inspection report (Ofsted, 2017), the school had twice the average number of children eligible for pupil premium and had been graded as good. There were more children than average who have a statement of education needs and the majority of pupils are of White British Heritage. The staff were mainly female and had a mixture of professional experiences (see Appendix A).

The school had a policy on teaching and learning premised on using assessment to inform learning processes (Name of School, 2018). Notably, the policy outlined a concern with what assessment knowledge was shared with children:

When our children know where they are in descriptive terms (not numerical levels) and what they need to do next to improve their current learning or work, they are clearly and confidently involved in Assessment for Learning (AfL). (Name of School, 2018 p.2)

The Early Years Foundation Stage profile results were self-reported on the school’s website for 2017-2018 and were described in line with the national average in terms of the “good level of development of just over 70%” (Name of school, 2019). How children are assessed and tracked in EYFS classes is not explicitly mentioned in the policy, but the nursery teacher outlined the kinds of daily practices undertaken (figure 1) that have in turn formed the subject of the data collection (Appendix B).

<p><b>Learning Stories</b> Narrative observations with series of related photographs written to parents, often displayed in classrooms. A copy of learning stories are sent home with children when they are made.</p>
<p><b>Big books</b> Large scrap books with photographs and written dialogue made in teacher-led small groups with children and records children’s thinking around concepts to inform future learning and teaching.</p>
<p><b>Assessment Tracker (EExAT)</b> Proprietary on-line system updated at points in the year to track and report curricula developmental milestones, not shared with children or parents.</p>
<p><b>Tapestry</b> Proprietary on-line system that creates observations using photographs/video, also tracks curricula developmental milestones and can be shared with parents.</p>

Figure 1 Assessment related practices in school

The indoor and outdoor spaces for reception and nursery classrooms were designed as one large interconnecting space with separating concertina doors. At the time of the research the concertina doors were partially closed but children moved in between the spaces for most of the session and spent some time in their base classroom for activities such as story reading.

Nursery aged children attended for a variety of sessions that included half or full days for a total of fifteen hours, with some families able to apply for extended childcare of thirty hours. Parents entered the outdoor area to access the doors that lead to the nursery and reception classrooms, and were able to spend time in the classroom with their children for part of each morning playing alongside them in their child-initiated play.

### **3.2.4. Interviews framed as *intraviews***

I required methods that could give me an in-depth perspective of how the matter of pedagogical documentation could be thought of as agentic and this influenced the ways in which I gathered data. There are some recent examples of research that use Baradian theory as a methodological framework and reframe the interview as an intraview (Kuntz and Presnall, 2012; Petersen, 2014). Concepts from Barad (2007) such as phenomena, intra-action, material-discursive and apparatus are used in the framing of an intraview:

According to Barad, phenomena can be understood as the basic ontological units that researchers study. This does not mean they should be seen as fixed entities; rather phenomena are produced through specific intra-actions. (Petersen, 2014 p.32-33)

In the framing of an interview as an intraview, Petersen (2014) draws on the Baradian concept of intra-action as a material-discursive act. Another important point is that materiality and discourse are not separate but are related, co-constitutive and arise through intra-action. Seeing pedagogical documentation as material-discursive enabled me to frame documentation as an apparatus that contributes to how the studied phenomena can be interpreted “This means that the apparatus of pedagogical documentation is *in itself* an active agent in generating discursive knowledge.” (Lenz Taguchi, 2010 p.63). This means that the materials of documentation inhabited a set of discourses for myself and for the participants, and recognition of how our embodied selves react within the location, space and other materials of the data collection process:

we offer the intraview as a productive understanding that foregrounds the embodied and emplaced nature of interaction. (Kuntz and Presnall, 2012 p.733)

An intraview takes into account more than the transcript of the written dialogue and comprises of a “co-creation among (not between) multiple bodies and forces” (Kuntz and Presnell, 2012 p.733). Accordingly, the data collection accounted for such things as physical movements, the relationships between myself and the participants, the materials involved as well as the space and location of the intraview. In the same way, a much broader view of the intraview process was taken with attention given to how my own and the participant’s past ideas and relationships reacted to the present material-discursive process of the intraview event.

The frame of an intraview for Kuntz and Presnell (2012), acknowledges a visual and sensory approach to ethnographic research (Pink, 2015). More importantly this is relevant as aspects of visual research methods resonate with the use of pedagogical documentation as prompts during intraviews. Subsequently this means combining intraviews with forms of sensory and visual ethnography that will suit the research plan overall:

In interviews, researchers participate or collaborate with research participants in the process of defining and representing their (past, present, or imagined) emplacement and their sensory embodied experiences. If we situate the interview within a process through which experiences are constituted, it might be understood as a point in this process where multisensorial experience is verbalized through culturally constructed sensory categories and in the context of the intersubjective interaction between ethnographer and research participant.

(Pink, 2009 p. 85 cited in Kuntz and Presnell 2012 p.743)

The later intraviews took a slightly different form as I engaged with two other participants. These intraviews took the form of a walk, the participants lead me around the school and identified how the documentation related to the materiality of the three-dimensional space:

Rather than simply a tool of inquiry, we present the intraview as a wholly engaged encounter, a means for making accessible the multiple intersections of material context that collude in productive formations of meaning.

(Kuntz and Presnell, 2012 p. 732)

Such approaches had the benefit of considering how documentation acts within spaces and encapsulated an embodied method that acknowledged both place and



space. Walking interviews have been practiced in geographical research and have the potential to recognise how place and location have influence (Riley and Holton, 2016).

Practically speaking the data capture for this approach offers limitations with the likelihood of increased noise and interruption. I framed this as beneficial as the captured noise and interruptions gave a sense of place indicating the interrelated relationships with both space and people. In addition, using still images from key points in the process focused the enquiry back to the influence of documentation. Hence the intraviews (both sedentary and walking) blended with visual research methods create images of participant created and selected documentation. The methodology therefore includes elements of visual ethnography with the sampling of pedagogical documentation, combined with the framing of interview as intraviews, as well as an on-line method that will be discussed within the next section of this chapter.

### **3.2.5. Discussion site (on-line blog)**

The overall aim of the discussion site was to provide a place for the exploration of ideas between face-to-face data collection with the primary research participant at her self-determined time and place. Also, this had the benefit of operating as a place to post transcriptions for member checking, as well as an opportunity for commentary on the transcriptions and related imagery. An associated benefit was the opportunity for the primary research participant or myself to lead discussion, post comments or further examples of documentation to provoke new enquiries. In turn, this contributed towards a more equalized power relationship. Power relationships are often prompted by cues that are less evident in online spaces (Mann and Stewart, 2011). The discussion site took the form of a closed blog and also had a live twitter feed of the school's social media that had been set up exclusively for the younger classes in school. The purpose of this was to provide a reference point, as the tweets often drew from the sorts of the documentation that were used as visual prompts during the intraviews (see Appendix F).

As the primary research participant was a long-term former colleague, the intention was to use this existing relationship to create an environment for collaborative

partnership in order to answer the research questions (Johnson and Rowlands, 2012). Nevertheless, this contributed to some limitations, as online spaces cannot replicate the small non-verbal cues that face-to-face methods provide. In the same way this can be a common disadvantage for insider research methods in terms of how both identities and boundaries are navigated (Atkins and Wallace, 2012). Additionally, the proximity of my relationship with the main participant brought about some exaggerated empathy which sometimes unduly influenced my interpretation of her practice (Atkins and Wallace, 2012). Consequently, I rewrote some analysis after a period of time in the analysis stage in order to bring some distance and reconsideration to the same data. To counter this, the length of time the blog ran was consecutive to the face-to-face sessions, so enabled such influences to be counterbalanced as the participant took more of a lead on the nature and content of the blog posts (Cohen *et al.* 2011). I was also mindful that this research method offered choice about how much engagement the participant had, which may have contributed to how power relationships were managed.

Blogs have certain affordances as a research method. Affordances in this context related to what characteristics the blog offered that could have influenced possible actions (Gibson, 2008). An affordance of the blog can also be read as a benefit of the method, exemplified by the research participant's ability to take more of a lead in the topics discussed. A limitation of a blog would be that it would only be fragmentary in nature (Primo *et al.* 2013). Hence, the sorts of data created by online methods were distinct from face-to-face approaches and this was read as different kinds of affordances that created partial readings of phenomena.

As the data collection progressed the methods influenced each other. For example, the blog entries by the research participant were provoked after the face-to-face sessions, possibly where she had thought of other ideas after further reflection. In effect, this enabled the research to accommodate different ideas. One incidence related to the participant posting a blog entry about her classroom and how she conceived of aspects of her practice as forms of documentation that we had not previously considered. A limitation of this is the lack of control I had as a researcher to enquire into certain characteristics of documentation that I thought were significant

but could also be seen as a benefit that enabled the participant to take more of a lead. It follows that the affordances of the blog contributed towards richer sets of data based on real classroom practice of putting documentation to work in a situated context.

Primo *et al.* (2013) considers that blogs offer an affordance concerned with materiality and that the material of the blog acts upon the rhetoric that is produced. Then again, this notion of a relationship between rhetoric and materiality echoes Barad's view of material and discourse as inseparable and produced through intra-action (2007). Then in the research procedure, the blog was conceived of as a materialization of a meta-layer of pedagogical documentation. The blog was read as documentation created to reflect upon practice-based pedagogical documentation. Accordingly, the blog created pedagogical documentation as a research method in itself. The dualist concept of teacher-researcher is significant in Reggio Emilia documentation practice as a form of professional development (Rinaldi, 2006). Conversely, the approach the methods took are not directly about children's learning, but rather focused on teacher-researcher reflections on how documentation worked and acted and this finds alignment with forms of qualitative and ethnographic methodologies (Wien *et al.* 2011).

Consequently, I found myself in another methodological complexity as I had not originally conceived of the blog in this way, rather the blog seemed to react, evolve and intra-act from and in-between the original research approaches. The blog itself evolved to be a dynamic methodology that had lively and responsive actions, reactions and intra-actions, rather than a static exchange or repository of data. The development of the blog had parallels with recent ECE research that was inspired by Deleuzian methodologies, such as Sellers (2010) who described similar visual approaches as 'rhizo-mapping' (p.566) and Lenz Taguchi (2016) who put to work collaborative 'cartography mapping' (p.39). Similarly, this research mapped and visualised the intra-actions between methods and draws heavily on the Baradian concept of intra-action (2007) rather than Deleuzian approaches. Koro Ljungberg (2016) argues that a methodological 'fluidity' can create an experimental

'methodological space' for researchers who are working with post-qualitative concepts (p.79).

### **3.2.6. Ethical considerations**

The approach to the ethics involved in conducting this enquiry is principled on the British Educational Research Association's guidelines (BERA, 2018) and has been approved through Sheffield University's ethical processes (see Appendix C).

Consequently, this involved such considerations as informed consent, anonymity and the freedom to withdraw within a non-coercive environment (see Appendix D, E). The anonymity needed to involve the obscuring of identities, as photographs of children and adults were part of the data collection. I discussed with the participants how they wanted to be identified in the work and it was decided for them to choose their own pseudonym (see Appendix A).

A particular ethical consideration was the nature of engaging with insider research that draws from existing relationships, as the primary research participant was a long-term ex-colleague and the secondary research participants were drawn from my professional networks in local authorities. As is often the case in collegial relationships, personal friendships and professional roles blur and thus reveal advantages and disadvantages. Taylor (2011) describes this as a research position of "cultural participant insider" (p. 3) with the advantages of established trust, accessibility, proximity and a shared cultural understanding. Conversely, there were inherent tensions and disadvantages in terms of data being conceived of as anecdotal and lacking in reliability. Taylor (2011) considers the place of friendship within insider research as under-theorized:

Where the researcher-self is a part of the Other's narrative, the narrative of the researched and the researcher become entwined. The researcher, then, is forced to look both outward and inward, to be reflexive and self-conscious in terms of positioning, to be both self-aware and researcher-self-aware and to acknowledge the intertextuality that is a part of both the data gathering and writing processes. (Taylor, 2011 p.9)

Furthermore, this draws attention to the entwinement of the self and the researcher-self. This brought some ethical tensions around balancing the maintenance of both aspects of the relationships. The participant's prior knowledge of my scholarly

interests could have unduly influenced contributions and the emotional attunement between us could in turn cause a lack of both objectivity and analysis (Taylor, 2011). Practically, I was mindful to guard against an over contribution of the time offered and quantity of data collected as this would have asked too much of the participants and have added to their professional burden (BERA, 2018). Accordingly, I was careful to put measures in place, such as ensuring the intraviews finished at agreed times, and ensuring the main participant took a lead in the amount of engagement in the online method.

Aside from the practical measures I put into place there were more complexities involved that seemed to suggest there is a temporal dimension in the shifts to a researcher-self within my position as a cultural participant insider (Taylor, 2011). The temporal nature involves past and possible future relationships and required a continual process of ethical consideration, situated to dilemmas that the study brought to the surface (Cohen *et al.* 2011). An example of an ethical dilemma is how I presented and interpreted the data in a way that safeguarded the relationship with people and with a school I was likely to continue to work with in the future. That aside, this needed balancing with exploring the ideas the data revealed that may cast the relationship and school in a negative light. I navigated this process through ethical procedures that member checked transcripts and ensured I attend to ethical processes at all points through the analysis and final write-up. A more nuanced example of ethical reflexivity was the choice I made to include data that referred to a bereaved family (figure x) that I considered in more depth in the conclusion. How I brought such sensitive events into a public domain needed careful consideration, even when all institutional ethical processes have been adhered to. This is an example of the limitations of gatekeeper consent, as a parental sanction may not have been forthcoming. According to Cohen *et al.* (2011), this would be a 'fitness for purpose' approach whilst Chesworth (2018) discusses how ethical uncertainty needs careful thought. In the end I addressed this by deciding to put to work the bereavement story after speaking to the teachers involved a second time. Because the documentation outlined the reception teacher's own bereavement experience as a way to support the child and the family, this then seemed to offer a form of balance in the ethical decision making.

There were multiple entwinements in the enquiry that included more than human participants. If I was mindful of the ethical responsibilities towards the human participants, my concern around the relationship with the school went beyond the teachers, children and parents who attended and taught at the school. I positioned myself ethically in terms of the non-human aspects of the school as I have taken a posthuman theoretical position (Hultman and Lenz Taguchi, 2010). It follows that I engaged in an ethical relationship with the non-human matter of the school, but this opened a question as to what an ethical consideration of the non-human meant in this context. Taylor (2016) suggests that posthuman approaches involve an ethics of care that acknowledges the dependence between human and non-human:

Posthuman ethics, from a 'new' material feminist perspective, is an ethic of 'worlding' and proceeds from the presumption that ethics is not about trying to see the world from inside someone else's shoes – which presumes individuated bodies. Rather, it means recognizing skin not as a barrier-boundary but as a porous, permeable sensorium of connectivity with/in a universe of dynamic co-constitutive and differential becomings.

(Taylor, 2016 p.15)

What is suggested there is an ethical responsibility towards the material that made up the school, in terms of the documentation and the spaces (both real and virtual) that the documentation inhabited. The matter and space then became non-human participants in the research design alongside the human participants. Fairchild (2017) adopted a similar stance in her doctoral study and navigated non-human ethical considerations by acknowledging the relation and affect between her human and non-human participants. In practice Fairchild (2017) considered this at the data analysis stage by attending to the human-human relations as well as the human-non-human relations. I have taken a similar position by attending to how the documentation affected the human participants and also acted between the human participants. It is apparent that this influenced not just how I analysed the data but also what I conceived of as significant in the data. Specifically, this involved an ethical responsibility that acknowledged humans as involved within assemblages that included non-human matter (Bennett, 2010 p.37; Fairchild, 2017 p. 69). The entwinement between human and non-human participants also needed to include the management of relationships and how that influenced the overall ethics of care.

For instance, this acknowledged that an ethics of care involved care for myself, and my researcher-self within that amalgam.

### 3.3. Research procedure

July 2016	Professional networks contacted to scope potential interest
October 2016	Primary research participant recruited with school colleagues agreeing to participate. Information sent out by e-mail with overview of broad research aims.
March 2017	Participant information and consent agreed with primary research participant.
May 2017	First face-to-face data collection with primary research participant. Online blog opened with primary research participant.
June 2017	Second face-to-face data collection with primary research participant. Online blog entries and responses with primary research participant.
July 2017	Third and Fourth face-to-face data collection with primary research participant. Online blog entries and responses with primary research participant.
October 2017	Fifth face-to-face data collection with primary research participant. Face-to-face data collection with secondary research participant, R teacher. Face-to-face data collection with secondary research participant, Head teacher.

Figure 2 Research Procedure

## 3.4. Data analysis

### 3.4.1. Rationalizing an approach

New materialist theories required an approach other than traditional qualitative data analysis that enabled attention to the assemblage of material and non-human elements as the fundamental unit of inquiry (Fox and Alldred, 2017). Considering research as assemblage (Coleman and Ringrose, 2013; Fox and Alldred, 2017) meant that multiple human and non-human elements, included the researcher themselves, were taken account. I employed approaches to data analysis that aimed to “examine how flows of affect within assemblages link matter and meaning” (Fox and Alldred, 2017 p.172). My overarching approach was described as a diffractive analysis and originated from the writing of Barad (2007) and Haraway (1997). Diffractive analysis does not focus on an interpretation of meanings within data, but rather look for differences when one set of data is read through another and attends to the patterns that evolve:

diffraction has to do with the way waves combine when they overlap and the apparent bending and spreading of waves that occurs when waves encounter an obstruction. (Barad, 2007 p.74)

Hultman and Lenz Taguchi (2010) applied diffractive methodologies in their analysis of photographs of children engaged in everyday experiences, such as children playing with sand or ascending a climbing frame. In order to move from an automatic anthropocentric starting point of the human activity, the researchers attempted to study the non-human and human elements in relation to each other (Hultman and Lenz Taguchi, 2010). They also considered that researchers themselves become part of the data as they work upon it, so acknowledging that the researcher will affect the data as much as the data affects the researcher (Levy *et al.* 2016). Inspired by Hultman and Lenz Taguchi, (2010) I employed similar approaches to data collection by not directly observing documentation in the classroom, but rather adapting an analytical process of *diffractive seeing*:

When reading diffractively, seeing *with* data, we look for *events* of activities and encounters, evoking transformation and change in the performative agents involved. (p.535).



I interpreted *diffractive seeing* by bringing a range of data fragments from different collection methods that included my sensory and embodied commentary in working with the data, that recognised the data itself as a “constitutive force” (Hultman and Lenz Taguchi, 2010 p.525). Through this approach to analysis, I attempted to understand how teachers interpreted the material-discursive apparatus of documentation practice (Lenz Taguchi, 2010).

### 3.4.2. Analysis process

In order to put a diffractive analysis to work I looked for elements of “glow data” (Fairchild, 2017; MacLure, 2010 p. 282). Glow data might be a fragment of audio, visual or written data that attracted attention and sometimes an emotional resonance, affect and reaction that draws comparison with a researcher’s own experiences (MacLure, 2010). MacLure developed her concept of glow data from Massumi’s (2002) method of seeking examples in data that seem to “stand for” other examples (2002, p.18). In addition, this idea is related to Barad’s (2007) notion of material-discursive meanings being interwoven with matter itself:

Discursive practices and material phenomena do not stand in a relationship of externality to each other; *rather, the material and the discursive are mutually implicated in the dynamics of intra-activity.* (Barad, 2007 p.152, cited in Levy *et al.* 2016 p.186.)

After identifying specific examples or events that glow in the data (MacLure, 2010), I employed diffractive approaches by considering them in relation to other examples by shifting, rereading and also layering my own experiences and interests within that.

As I have gathered my data through intraviews with three teachers, the analysis came from the interweaving relationality\_of teachers' language and the materiality of documentation. As I used some visual methods, in effect I created research pedagogical documentation as a research method (Pink, 2006). The research documentation I created was made up of the following elements; the language employed by the teachers, photographs of the documentation they described, theoretical ideas from new materialist theorists and some commentary on the sensory and embodied responses involved in the data collection.

Pedagogical documentation is associated with research practices as discussed in the previous chapter and has been used as a kind of 'lively' methodology "pedagogical narrations as a *lively knowing-doing*" (Hodgins *et al.* 2016 p.195). Diffractive analysis is related to an onto-epistemology that connects knowing and doing in research (Barad, 2007). Accordingly, a diffractive analysis and visual approaches both take the position that analysis involves acknowledgement of the subjectivity of the researcher and took into account that feelings and assumptions influence the production of data (Pink, 2006 p.322). For that reason, I attempted to enfold my own researcher-self with responses and reactions into the visual data and this sat well within a diffractive approach to analysis. As a result, this helped answer the enquiry about what material-discursive intra-actions arose from pedagogical documentation. In effect, diffractive analysis supported the aim and explored methods that investigate the potential of documentation as "a concern with what matter does, not what it is" (Fox and Alldred, 2017 p.153).

# Chapter 4 Findings and Analysis

## 4.1. Introduction to the chapter

In this chapter I outline findings from the intraviews and the blog discussion site in order to explore the overall question: *What forms of material-discursive intra-action arise from pedagogical documentation?* Firstly, I outline the processes I went through to enact a diffractive analysis that involved a three-step process of mapping (Davies, 2014), glowing (MacLure, 2010) and cutting (Barad, 2007) the data. Secondly, I explore the findings of the diffractive analysis by taking specific cuts of data to investigate the material-discursive intra-actions between documentation and the human actors and non-human actants. Thirdly, I broaden the exploration to conclude what forms of intra-action are emerging across the body of the data, reflecting on their implications and then explaining how this leads into the subsequent discussion chapter.

### 4.1.1. Preparing and diffracting the data

Adopting diffraction as a way to analyse data represents a shift from seeking interpretation and involves processes that seek acknowledgement of the researcher's own reaction to the data:

I understand diffractive analysis as an embodied engagement with the materiality of research data: a becoming-with the data as researcher.  
(Lenz Taguchi, 2012 p.265)

Thus, the engagement with the data forms part of the analysis and for that reason I have used the three following sources. Initially, I selected visual and text fragments from the data collection methods, using MacLure's theorization of glow data (2010). Then, ideas from the methodological frame are layered in, so the data is read with and through theoretical concepts. Mazzei (2014) suggests that diffractive reading "produces an emergent and unpredictable series of readings as data and theory make themselves intelligible to one another" (p.743). Lastly, I included my own subjective and embodied responses to the data collection process where it is relevant: "We try

to register how the data interferes with the sensibilities of our bodyminds and what this brings to the event of reading the data” (Lenz Taguchi, 2012 p.272).

I imagined this process as a collection of data fragments, overlaid like colour acetates on a light box, producing new shades and projections that I could move, reorder and alter in their overlapping positions. To enact this process I created a series of documents from the three data sources detailed above and that in turn instigated each phase of the analysis. The created documentation is illustrated in the latter sections of this chapter (figures 5-10). I anticipated that this documentation of data went beyond representing my thinking and enabled a visual assemblage that uncovered something of the material-discursive that could shift thinking and bring fresh meanings (Kummen, 2014). Barad (2007) posits that diffractive methodology involves “reading insights through one another” (p. 25 cited in Mazzei, 2014 p.742).

#### **4.1.2. Mapping the data**

The agency of the researcher, in a diffractive analysis, lies not in such tracings of the already-known, but in making new mappings, onto-epistemological, ethical mappings, in which something new might emerge. (Davies, 2014 p.734)

In order to enact a diffractive analysis and make something new, rather than trace what I already know (Davies, 2014), I have visualized the datasets as maps (figures 2-4). I present these mappings as visualizations of my thinking to navigate the findings and highlight aspects of complexity, diffraction and relatedness. In doing so, the images provide this section with a route- map. This mapping process helped me to see both macro and micro events across the data collection period.

Firstly, I referred back to the order of the intraviews and what sorts of documentation were discussed there. I had requested that the research participants decided the focus for each of the intraviews, and this process reflects which documentation seemed significant at different points. The types of documentation and the timeline of the two data collection methods are described in the previous methodological chapter, but through the mapping (figure 2) I was able to see how they related and overlapped.

Taking the timeline of intraviews and blog entries (figure 2) as a starting point, figure 3 traced what forms of intra-action took place between the documentation and different groups of people. The documentation types seem to behave in relation to each other. For example, what is a learning story might become part of a tweet, or a series of entries from a big book might become part of a classroom space when displayed and consequently create a new set of intra-actions:

The word 'intra-action' indicates that entities are not considered to be separate, initially. Instead of seeing them as separate and interacting, entities are seen as being produced through intra-actions. (Elfström Pettersson, 2017 p.6)

Mapping in this way enabled me to trace the actions of the documentation that Barad would theorise as "not a thing but a doing" (2007 p.183). In this positioning, the diffractive map of documentation types reveals patterns of difference (Elfström Pettersson, 2017). These patterns of difference indicate that audiences for documentation fluctuate, replicate and overlap. The form the documentation takes can point to how and who is acting and intra-acting within that entanglement and this supports the main enquiry into how intra-actions emerge from forms of documentation. Lenz Taguchi (2012) posits that diffracting differences enables illumination of what is produced through documentation and this has been a significant influence on how I have put to work the analysis process. Later in this chapter, I explored the findings about how documentation intra-acts with human and non-human elements. Within the methodological frame of new materialism, the non-human is in relation and intra-acting with the human (Bennett, 2010; Fairchild, 2017). The mapping indicated that documentation intra-acts with human groups comprising of children, families and teachers and in addition, there are non-human elements within this entanglement. The non-human elements within this mapping are indicated by relationships between different iterations of documentation, but also in how the documentation is in a relationship with the spaces of the classroom, school, community and wider world. These wider non-human elements, particularly notions of time and space, will be explored within the later parts of the findings chapter.

The third map (figure 4) explores how the different data collection methods relate and react to each other and reveals a sense of the intra-actions that were taking place

in-between the data. I did this by overlaying the first map of intraviews (figure 2) with how the blog entries emerged in-between the intraview events (figure 3). What is revealed is a much more complex series of actions.

Rather than a neat timeline of documentation types and related audiences that the first mappings illuminated, this map (figure 4) now traces how relationships began to influence the sorts of data that were produced. What is revealed is not a linear course of events, but rather traces flows, directions and redirections and is almost three dimensional in its dynamic. The map layers in the authorship of blog entries, how they were responded to and the frequency of posting. Consequently, the data became messy, there now seems to be disruption, counter-moves and stagnation of data that can indicate how thinking and knowing are moving (Mazzei, 2014). The movement and messiness of lines, directions and disruptions now seems to be much more complex to classify or organize and also transforms into something more lively: “Experience is an ongoing process. It is messy, open-ended, inconclusive, tangled up in the writer’s and reader’s imagined interpretations” (Denzin, 2017 p.83). To capture some of this movement and disruption, this map helped me to see how the subjective responses and relationship with the primary participant have become part of the data. MacLure (2013) posits that data can defy the search for patterns and codes, positing that the “wonder of data” itself can instigate new thinking (p.228).

#### **4.1.3. Glowing the data**

Glow data involves the seeking of data fragments that seem to attract a reaction or affect (MacLure, 2010). However, a limitation of this approach is that data fragments that don’t glow as brightly are overlooked, resulting in a patchy and highly selective subjective analysis. There is a counter-argument to this, in that the subjective and embodied reaction of the researcher-self becomes visible and so the selection of the glow data aligned with this position.

# Intraview, Documentation Type and Blog Timeline



Figure 3 Intra-actions between data

## Intra-actions between Documentation

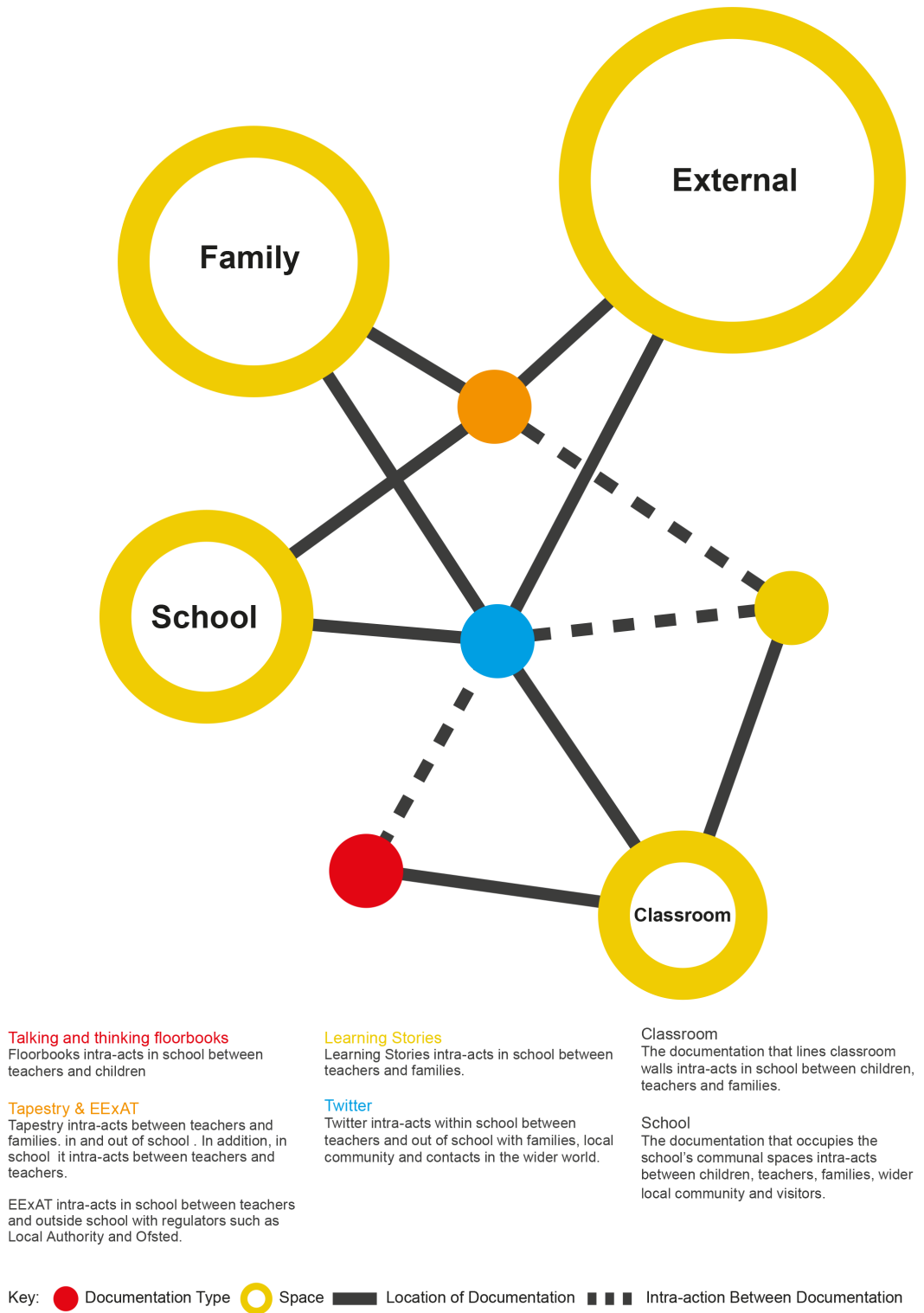


Figure 4 Intra-actions between documentation



## Intraviews and Blog Entry Map

Key:

- Intraview
- Timeline
- New Blog Post
- Follow Up Blog Post
- Blog Post by Jo
- Blog Post by Michelle
- Comment
- Lead to (within same post)
- Lead to (creating new post)
- Thread Stagnates

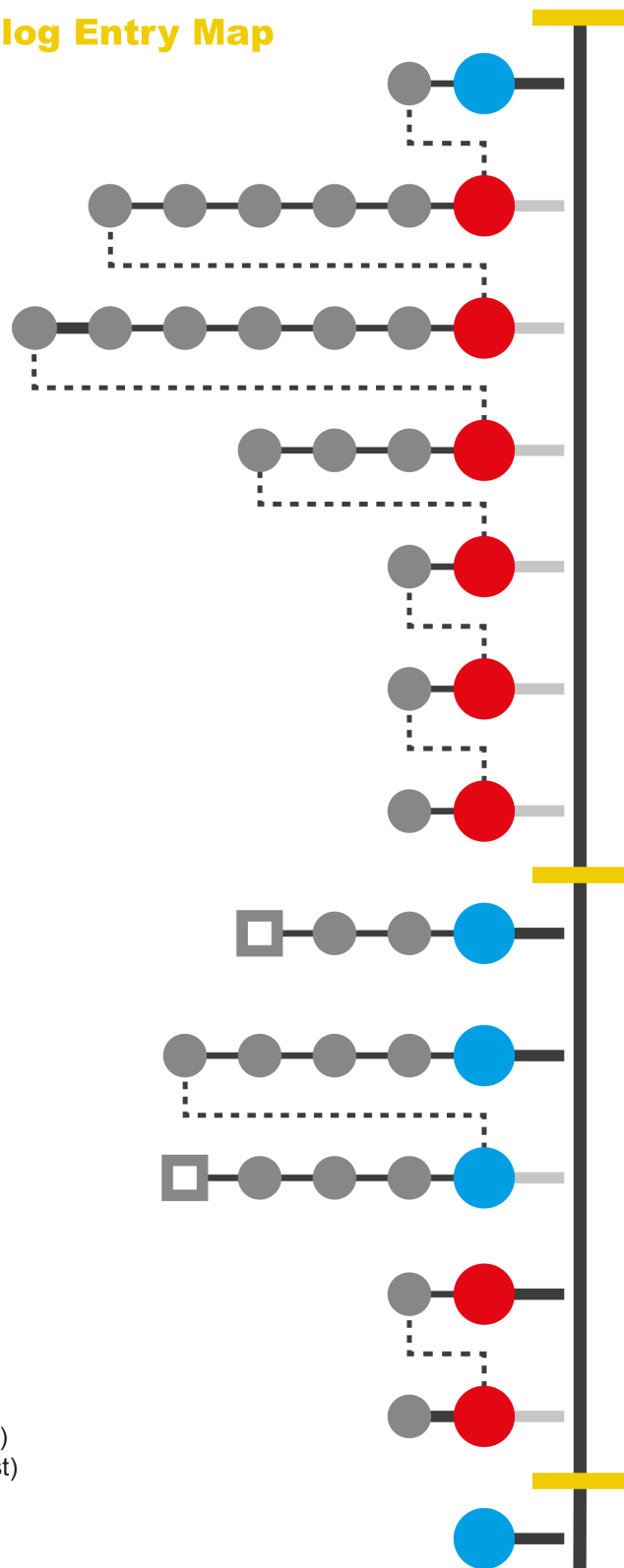


Figure 5 Intraviews and blog entry mapping

Nevertheless, by being alert to how the participants become animated about particular examples may mean I can encounter glow data other than my own, thus following “the scent” of the data (Bennett, 2010 p.xiii).

#### **4.1.4. Cutting the data**

After seeing the whole data as intra-acting maps of events, I have been inspired by the Baradian term “agential cut” (2007 p.140) that represents a created pause within the complexity of the intra-action between different elements (Elfström Pettersson, 2017). Lenz Taguchi (2010) argues that when pedagogical documentation is made up of specific choices of text and images, it becomes an apparatus of knowing for the teacher:

the observation will in fact still produce a *temporary constructed distinction* – the constructed cut. The constructed ‘cut’ makes it possible for us to at all identify a material observation of practice that we can talk about and study as a piece of documentation. (Lenz Taguchi 2010, p.64)

I put the theory of agential and constructed cuts (Barad, 2007) to work by creating documentation of specific aspects of the human and non-human intra-actions of the data. By taking this approach, I was influenced by bricolage research methodologies (Denzin and Lincoln, 2011; Kincheloe, 2001) that layer research stories to avoid one story dominating. Bricolage approaches have commonalities with diffractive analysis as ideas and concepts are read through one another (Handforth and Taylor, 2017; Taylor, C., 2013). As a consequence, I termed this process *research documentation* to create a distinction from the pedagogical documentation that is the focus of the enquiry. The resulting research documentation can also be framed as a kind of research assemblage that Fox and Alldred (2017) suggest can enable attention to the entwinement of material, human and the non-human.

The following section of this chapter presents these cuts of data using created research documentation (figures 5-9) and explores how documentation intra-acts with the human and non-human worlds of the classroom in order to illuminate the findings.

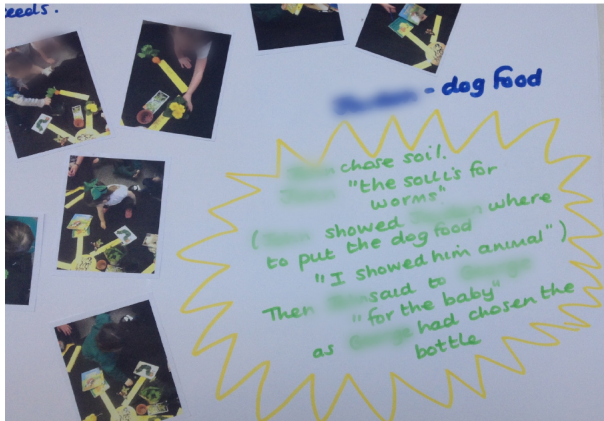
## 4.2. Cutting the data one way *with the human world*

### 4.2.1. Cut 1: Documentation intra-acting with children

The first cut is made up of three elements brought together through the research documentation (figure 5) and considers how documentation is intra-acting with children. Firstly, it shows two samples of classroom documentation, extracts from the intraview transcript and in addition, some theoretical fragments from scholars associated with new materialist theories. Reading insights through one another illuminates how the documentation is constructed as something that behaves as a “performative agent” (Lenz Taguchi, 2010 p.10). Using the metaphor of a light box, I symbolically lift each fragment from the research documentation assemblage, diffractively reading insights to consider how the documentation acts and intra-acts with and in-between children (Barad, 2007)

The fragments of documentation were selected by considering which data glowed (MacLure, 2010) and presents a learning story of Tyler’s exploration of water. The learning story uses the convention of a narrative addressed to the child, signed by the teacher and denotes a celebratory account of non-verbal play with water, acknowledging Tyler’s social and motivational factors (Carr and Lee, 2012).

When read through the transcript of the intraview, the documentation can be framed as acting at a crucial time and space for Tyler, as he is in his first few weeks of establishing himself as a valid member of the class. Hence the documentation acts as an anchoring mechanism for Tyler, supporting his inclusion and belonging to the world of school. The transcript of the intraview acknowledged this in the positioning of the learning story by the classroom door in order to catch Tyler’s reaction as he walked in the very next day and recalled his verbalized reaction, *‘It’s me’ ‘it’s me’*. The documentation in its temporal and physical positioning intra-acted with Tyler to enfold him into the world of school in those early first weeks; *‘And we talked about it again, so I think for him, it was -it was all about this place- is ohhh this place is all about me’* (Michelle).



## Documentation intra-acting with children

It was probably a month after he first started. Then some friends came along and he and Logan got the water wheel out. It was such a lovely example of some learning so I did this learning story and I was rather pleased with it. I gave Tyler a copy to take home and I put it on his Tapestry and then I thought you know what I'll do I'll put a big version of it in the water area. So that's what I did, it might still be there although it might be a bit splashed now. So I blew it up and put it in the water area so the next day when he came in, he looked at it and he was like 'it's me' 'it's me' and I was like 'yeah do you want that thing you were doing yesterday you remember how lovely it was?' And we talked about it again, so I think for him it was all about this place is- ohhh this place is all about me  
(Michelle)

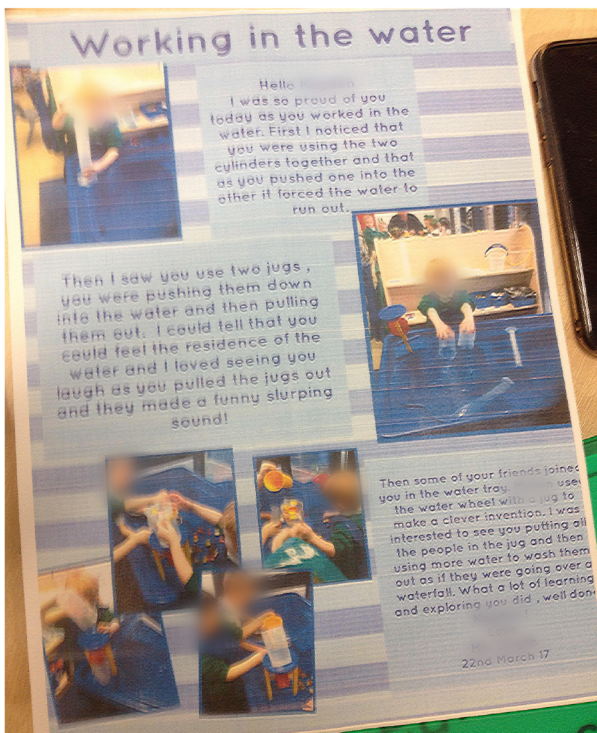


Figure 6 Documentation intra-acting with children

.....this is dead interesting...we've got a little boy called KC who loves loves animals. He has really poor speech and language. He's got a bit of a name for being called a naughty boy, but he chose the pot of soil...so we were thinking he was going to put it in the plants.... but he didn't he put it with the animals. So I was like 'oh KC that's surprised me, why have you put it with the animals', and he said 'wiggly worms'. And he is dead right, He's not 4 yet. He is a little one. So I was like oh KC I'm going to do another branch of our talking and thinking...I did a special one just for him with worms on. Because we had made such a fuss....he was instantly empowered ....He said to Miss Williams 'I helped Ethan' .....you know since then.....His speech and language has improved, honestly, he is like a different child. ....he suddenly saw himself as like somebody who could help somebody else. ....I was so proud of him, he immediately got all that feedback from all the adults that everybody is proper impressed with me..... Interestingly we went a bit further around the circle and Ethan who is quite a bright little boy and is held in quite a lot of high regard in his peer group, he's chosen a little dog....the dog food, so he just didn't know where to put it. KC was like 'I'll show you, I'll show you Ethan', and he showed Ethan, 'put it here, put it here with the dogs'.

(Michelle)

M: He said to Miss Williams 'I helped Ethan'

J: Oh Michelle

M: you know since then,

J: I got goose bumps then when you said that

M: His speech and language has improved, honestly, he is like a different child.

J: Boom boom boom

M: Kapow

J: That is awesome.

M: Is that alright, is that what you wanted?

J: It's bloody awesome

(Michelle and Jo)

"This means that the apparatus of pedagogical documentation is in itself an active agent in generating a discursive knowledge"

(Lenz Taguchi, 2010 p.63)

"I understand diffractive analysis as an embodied engagement with the materiality of research data: a becoming-with the data as researcher."

(Lenz Taguchi, 2012 p.265)

There are further layers at work in this data fragment, as the research documentation reveals Michelle's interpretation of Tyler's reaction and my own analysis of Michelle's retelling. Nonetheless, diffractive analysis moves away from interpretation as a primary tool of the researcher and looks to researchers in relation to the data. Reflecting upon the more embodied and subjective responses of the researcher-self can uncover relational intra-actions that indicate "a becoming with the data" (Lenz Taguchi, 2012 p.265). Tellingly, there was an emotive pleasure and excitement between the researcher and participant in finding what was mutually interesting within the data, seen in these kinds of transcript fragments '*Boom boom boom*' (Jo) '*Kapow*' (Michelle). Furthermore, this transcript fragment of data suggests how a shared purpose in the research process was beginning to be established '*Is that alright, is that what you wanted?*' (Michelle) '*It's bloody awesome*' (Jo).

Returning to the second glow data (MacLure, 2010), the research documentation (figure 5) included an extract from a Talking and Thinking Floorbook, an approach that records children's thinking around concepts to support planning processes (Warden, 2012). Floorbooks are made in large-scale scrapbooks in collaboration with small groups of children who are enabled to see documentation being made and actively contribute toward its creation. The floorbook extract recounted an event through text and photographs where one child, KC, revealed his knowledge about animals and food whilst supporting the understanding of another child, Ethan. The transcript revealed that KC was considered as a child who lacked language proficiency, and this is conflated with his capacity to conform to social norms '*He has really poor speech and language. He's got a bit of a name for being called a naughty boy*' (Michelle). In contrast, Ethan is described as a socially competent and conforming pupil '*quite a bright little boy and is held in quite a lot of high regard in his peer group*' (Michelle).

When the documentation is diffractively read through the transcript of the intraview, it can be framed as intra-acting between two children through an exchange of information that shifts the signified status. Here, the perceptions of the adults move, and this shift reflects back in particular to KC:

*'Because we had made such a fuss...he was instantly empowered ....He said to Miss Williams 'I helped Ethan' ...you know since then...His speech and language*

*has improved, honestly, he is like a different child...he suddenly saw himself as like somebody who could help somebody else' (Michelle).*

The documentation acts as a re-signification of status for KC, both to his teachers '*I helped Ethan, Miss Williams'* (Michelle) and to his peers '*I'll show you, I'll show you, Ethan'* (Michelle). A material-discursive reading illuminates the predominance that verbal language takes in how children are assigned the status of a good learner. Bradbury (2014) posits that the discourse of a good learner in current English policy construction (DfE, 2017) values children's capacities to use verbal language, be self-motivated and self-regulate behaviour. Material-discursive readings point to the multiple and sometimes conflicting discourses at work that can form and reform a child's identity and status. The different iterations of documentation may reflect how different discourses shape teachers' responses and relationships with children:

Consequently, we need to ask ourselves what kind of knowledge we produce with the tools or 'apparatuses' we use in our learning activities with children and students. (Lenz-Taguchi, 2010 p.18)

Returning to the research documentation (figure 5), the subjective and embodied reactions between researcher and the participant can be overlaid alongside the documentation fragments. The embodied response '*I got goose bumps then when you said that'* (Jo) captures a sensory intra-action in-between data, documentation, participants and the intraview process itself, pointing to a "process-based intra-active event" (Braidotti, 2002; Kuntz and Presnall, 2012 p.733). These kinds of sensory and embodied responses can signal moments of significance; in this case the presence of what might constitute glow data (MacLure, 2010).

The findings point to the capacity of documentation to intra-act *with* and *in-between* children and teachers. In the case of Tyler, the documentation intra-acted with him to produce a moment of belonging as he entered the school domain. The apparatus of pedagogical documentation can be said to behave as an agent (Lenz Taguchi, 2010 p.63) that generates discourses of inclusion through intra-actions between the teacher, child and the documentation itself.

Documentation is intra-acting between KC and Ethan and is shifting and sharing the assignation of status. Ethan, a child who has been acknowledged as having a high

status, now becomes someone who is unsure '*...he's chosen a little dog...the dog food, so he just didn't know where to put it*' (Michelle). Through the documentation process KC is assigned a higher status and now becomes an empowered child who can share and help others '*He said to Miss Williams 'I helped Ethan'*' (Michelle). Such empowerment can be located through a complex assemblage of human and non-human actants including teachers, children and the classroom resources that the documentation illuminates, as well as the researcher-participant dialogue.

Moreover, the research documentation reveals the interference between the bodyminds of the researcher and participant (Lenz Taguchi, 2012 p.272) with embodied responses such as goose bumps. These sensory interferences seem to signify what is not being verbalized, and thus can indicate a further agent at work in the research assemblage.

#### **4.2.2. Cut 2: Documentation intra-acting with families**

The second cut of data is brought together through the research documentation (figure 6) and considers intra-actions with families. The documentation fragments are drawn from two sources (Tapestry and Twitter) that are used in part for communication between families and school. Tapestry is a proprietary on-line system that creates observations using photographs or video and can track curricula developmental milestones. Twitter on the other hand, is an on-line micro-blogging site that is used to communicate school events including some descriptions of children's learning using visuals and text.

The Tapestry example focuses on Eve, a four year-old girl who has been observed reading her friend's names from cards to a staff member. What the photograph emphasizes is the facial expressions involved in the mutual endeavour of concentration, attention and reciprocity. The Tapestry documentation narrates the learning, drawing attention to the curricula developmental milestones and is celebratory in tone, using smiley face icons to praise achievement.





## Documentation intra-acting with families



*For me, the main reason to do all this recording of what happens is for the parents to be engaged and for the children to reflect on. I would say that my main motivation for this is to get information to parents to see what their children is ...and allowing them to see what learning is going on.*

*So this was just really incidental, she was putting their names out for snack Eve starting saying the names of the other children. ....So I was delighted because A; Speech and B; it was showing some kind of relationship with people.....So for Eve and instances like that, that is quite good because that is the level she's at..... Her mum's commented ....Yeah getting parents to understand that it's important. To some extent you know I've got this thing about not dumbing it down- Tell them the truth. Do you understand this is early displacement? Not just messing about in the water you know this is pneumatics. This is early algebra, or whatever it might be. I really think there is culture awww they're babies they're just playing. And almost kind of in an insignificant way. As I think it's dead important to show parents that it's an important thing. And I've said this before that it's not unattainable you too can do this in the bath. Or you too can do this in your garden.*

*(Michelle)*



*"First of all, agency is about response-ability, about the possibilities of mutual response, which is not to deny, but to attend to power imbalances. Agency is about possibilities for worldly re-configurings. So agency is not something possessed by humans, or non-humans for that matter. It is an enactment."*

*(interview with Karen Barad in Dolphijn and van der Tuin, 2012 p.55)*



*M: .....so that's kind of me showing all... look what I've been... I think it's that kind of holding in mind thing. It's me saying that you're always in my head.....I'm thinking about you now and I'm doing this. That's kind of a nice thing isn't it?*

*J: Yeah it is. There is something they're about...*

*M: And here indeed is spaghetti play.  
(Michelle and Jo)*



Observations / Spotting her friends

Spotting her friends

Authorized by [Name] added 12 Jul 2017 06:57 PM  
Approved by [Name] on 12 Jul 2017 06:57 PM

Like -1 Like

Liked by [Name]

Users with the 'Download media' permission can download these photos and videos

Notes

[Name] joined [Name] this morning as she put the snack names on the board we were delighted as she began to name all the other children we are delighted with the progress [Name] has made in her communication skills and this is another example of how well she is doing 🌟

Early Years Foundation Stage

Communication and Language

Speaking

100% 100% Refinement

- ✓ Copies familiar expressions, e.g. 'Oh dear', 'All gone'.
- ✓ Beginning to put two words together (e.g. 'want ball', 'more juice').
- ✓ Beginning to talk about people and things that are not present.

Comments

[Name] - 13 Jul 2017 02:16 PM

well done [Name] Im so happy with your progress.

Figure 7 Documentation intra-acting with families



Tapestry enables parents to view these comments and images, and Eve's parent has responded in a comment that mirrors the tone *'well done Eve, I'm so happy with your progress'*. Fairchild (2017) draws on Deleuze's (1992) view of culture and power to posit that Tapestry is used as a controller and regulator of teachers and children. Conversely, in this example (figure 6) Michelle positions Tapestry differently to Fairchild (2017) and shifts the control and regulation to the teacher role. Tapestry is used to define and share children's learning but also assigns status to play-based pedagogies:

*For me, the main reason to do all this recording of what happens is for the parents to be engaged... Yeah getting parents to understand that it's important..... To some extent you know I've got this thing about not dumbing it down- Tell them the truth. Do you understand this is early displacement? Not just messing about in the water you know this is pneumatics. (Michelle)*

Through the research documentation Twitter takes a more domestic position, drawing attention to inter-connections between teachers and families in a relational capacity. The language of the tweet captures Michelle sending messages from her own kitchen the night before she brings in 'rainbow spaghetti'. The motivation for the sending of this tweet seems to be explained by Michelle wanting the families of her children in the class to know she is thinking of them outside of school hours:

*I think it's that kind of holding in mind thing. It's me saying that you're always in my head... I'm thinking about you now and I'm doing this. (Michelle)*

Here documentation takes a more informal, emotive and personalized action by sending images to families in anticipation of the next school day that demonstrates the porous boundaries between a teacher's domestic and professional spaces. Michelle describes this act as 'holding in mind' and alludes to Winnicott's theory of a holding environment, building on a young child's experience of being cared for and physically held by a parent that can extend to later experiences in school and in wider society (2009). Documentation in this iteration exists in an online space, drawing comparisons with Fletcher *et al's* (2014) concept of "the virtual holding environment" (p. 90), described as an emotional virtual space that enables the nurturing of relationships.

Twitter and Tapestry take on differing movements in their intra-actions. The Tapestry fragment constructs a discourse of a teacher as a definer of language with the information and power flowing in one direction from school to home. A material-discursive reading of this positions the documentation as acting within an “authority discourse”, where a teacher’s qualification constructs authority (Warren, 2014 p. 262). However, the Twitter fragment flattens the hierarchy, creating an emotional and nuanced reaching out from the teacher to connect a three-way relationship between parents, children and teachers. Crossing between domestic and professional spaces align with discourses that underpin the historic relationships of ECE teaching with caring and maternalist roles (Aslanian, 2015) and also the kinds of care encapsulated within the term “professional love” (Page, 2011 p.310).

Diffraction overlaps appear between the two documentation fragments (figure 6) as words appear in the Twitterfeed that attempt to define the possible learning from the rainbow spaghetti. The hashtags (#readytowrite, #sensory play, #messy play) echo Tapestry’s role as a definer of learning. Material-discursive readings are multi-layered across these two fragments and intra-act to reveal the intersection of powerful influences on the identity of ECE teachers, where discourses of authority (Warren, 2014) rub up against discourses of maternalism (Aslanian, 2015).

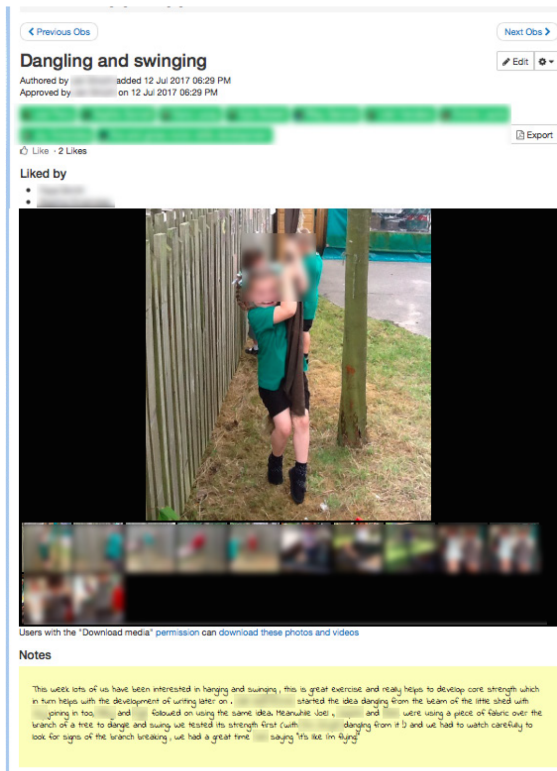
Returning to the research documentation (figure 6), when the theoretical fragment from Barad (2012) is diffractively read through the documentation samples, Twitter and Tapestry can be framed as materials that enact agentic forces. Barad (2012) considers that agency is tied up with responsibility and power imbalances within relationships. The intra-action between the research documentation reveals a complex set of material-discursive elements embodied within the objects of rainbow spaghetti and online spaces of Tapestry and Twitter that are behaving as forces connecting assemblages of humans and non-humans. Such an assemblage points to the kinds of emotional complexities involved in building relationships with families that can leak into a teacher’s protected time away from their professional space (Page and Elfer, 2013). It follows that the spaces *in between* the documentation and human actors seem relevant here and echo Kummer’s (2014) view that artefacts can emerge from the entanglement of the human and non-human elements within

documentation practices. Framing documentation as a form of enacted agency draws attention to how “the agency doesn’t lie in the human (nor in the non-human) but in the in-between-ness of humans with the material world” (Kuby *et al.* 2017 p.878). Therefore, the enacted agencies of these documentation fragments reveal actions and intra-actions on and between families and teachers illuminating multiple discourses of caring, love, maternalism and authority (Aslanian, 2015; Page 2011; Warren, 2014). Similarly, the intra-actions operate within the confines of school but also leak into the virtual domestic realms of both teacher and family.

#### **4.2.3. Cut 3: Documentation intra-acting with teachers**

This third cut is brought together in figure 7 and considers how the material of documentation is intra-acting with teachers and associated discourses of status and practice within a curricula policy context that emphasizes accountability (Basford and Bath, 2014; DfE, 2017). The three fragments in the research documentation are taken from Twitter and Tapestry with their related intraview transcripts, along with Lenz Taguchi’s theoretical concept of “deconstructive talk” (2008 p.272) that derives from Derrida’s deconstruction theory (1996). I argue that the sorts of material-discursive intra-actions from and between these data fragments reveal a complex assemblage that includes discourses of assessment, regulation, resistance, ethics and literacy. Subsequently, this reveals how documentation can act to establish status and identity whilst simultaneously answering challenge to play-based pedagogies.

The first documentation fragment is taken from Twitter and illustrates the way that Michelle positions her pedagogical leadership. The posted images emphasize the individuality of collages made into Mother’s Day cards, along with a vase of daffodils positioned against descriptive text used as hashtags (#creative, #unique, #individual). Through the narrative of the intraview ‘*I’m on a bit of a mission against Christmas crafts*’ (Michelle), the documentation can be understood as an act of pedagogical leadership.



“ In accountability well you know one of the things that drive me nuts is there nobody in the school really cares what you do. Until such a time as Ofsted are in and then suddenly they're interested. Suddenly people want to know.....so what I do is make some imaginary children....and I linked the coordinators as their parents....So when I tag the children that are involved I might also tag number or whatever it might be and then the coordinator gets a notification that their child in invited has been given an observation. Which I thought was just so clever. I was so pleased with myself.....Your motivation is to stop people coming up to me before Ofsted and asking what did you do in geography in early years and what are you doing in art in early years. So look don't ask you can see it whatever time you want...This is annoying me really I'm feeling a bit disgruntled.....So I was like ok you want to know what we do about phonics? I'll show you what we do about phonics....So this is our imaginary child called phonics. ....This is what phonics looks like. ....Well nobody asked me again....That was a thing like 'what are you doing about handwriting can you do more about handwriting' And I was like well no. We do plenty of handwriting and here it is with us, dangling and swinging.....that's handwriting. And I always put little things like 'This is really great exercise and helps to develop core strength which in turn helps with the development of writing later on.'.... This is what handwriting looks like for us you know. So a sports day we may have all kinds of things so we may have some writing in here. ....So people just kind of leave me alone....So that you're not happy to do stupid worksheets and dreadful things. (Michelle)

## Documentation intra-acting with teachers

“ M: We wanted to do mothers day cards by looking closely at spring flowers, I didn't want it to be a production line. ....I'm on a bit of a mission against Christmas crafts, and the like .... J: ....I'm thinking here Michelle that this, the purpose of the documentation is going beyond a record of the children's thinking. It is also describing some of your choices that you make as a teacher aren't they? M: Absolutely yes J: You've explicitly thought—I want to record the way I went about cards, because it is supporting your other members of staff. M:....This links with twitter I suppose. I made sure we went on twitter and deliberately photographed all of their cards together and put them on twitter and on Tapestry so I could say to people that this is the children's own representation, value it because it is very special. (Michelle and Jo)

“ Little creative area for children to represent daffodils in their own way #creativity #art #nature #spring primary



“ So proud of the beautiful cards made by our nursery children #mothersday #creative #individual #unique primary



“Deconstructive talk involves conversations that disquiet participants, throw them off balance, and toss them from their comfort zones purposefully challenging familiar ideas and practices.” (Lenz Taguchi, 2008 p. 272)

Figure 8 Documentation intra-acting with teachers

Such a statement establishes value in individualized representations and rejects practices that mimic adult-made products. Documentation in this frame traces a discourse that constructs an image of the child that values individuality rather than conformity, process rather than product, thus including and excluding different ideas of the child (Alasuutari and Karila, 2010; Lenz Taguchi, 2010).

The second documentation fragment comprises of an intraview transcript and related Tapestry entry that contains photographs of various children swinging and dangling in outdoor play. The Tapestry entry draws attention to the connection between the gross motor skills involved in hanging and the fine motor skills involved in pencil grip. Furthermore, this demonstrates Michelle's statutory duty and non-negotiable compliance within the assessment policy context with the use of documentation to track curricula developmental milestones related to physical development and literacy. The culture of performativity is evident here (Ball, 2003) and echoes the consequences of the surveillance and monitoring of children's progress. Michelle describes her reaction to accountability, scrutiny and regulation agendas with her creation of 'imaginary children', rather than named children, so they can be reused in subsequent years. These observations are then detailed and specifically addressed to school subject co-ordinators:

*'In accountability, well you know one of the things that drive me nuts is there nobody in the school really cares what you do. Until such a time as Ofsted are in.'* (Michelle)

Michelle creates observations that directly address the curricula subject whilst promoting the values that ring true for her pedagogical leadership. Here, the frustrated emotions at play are illuminated in promoting pedagogical leadership of ECE that in addition can ward off regulatory scrutiny from subject co-ordinators. Documentation is acting as a protective shield against unwarranted scrutiny from inside and outside the school:

*'This is annoying me, really I'm feeling a bit disgruntled...So I was like ok you want to know what we do about phonics? I'll show you what we do about phonics... So this is our imaginary child called phonics. ...This is what phonics looks like ...Well nobody asked me again.'* (Michelle)

The documentation acts within an “assessment game” (Basford and Bath, 2014 p.119) whereby the pedagogical knowledge acquired by Michelle is used to position herself within an ethical discourse that ensures her playful pedagogy remains intact whilst maintaining the outcomes she feels under pressure to produce:

*‘You got to play the game haven't you...Got to find a way to be the right thing and do the right thing, haven't you. We've got great writing we haven't got 53% summer birthdays this year and the handwriting is lovely, going up. But it's lovely because we've done it in the right way do you know what I mean?’*  
(Michelle)

Here, Michelle demonstrates awareness of the multiple purposes and roles that documentation can have. Firstly, documentation is used to evidence developmental milestones for the purposes of accountability and regulation, echoed in the comments *‘I'll show you what we do about phonics’* and *‘we've got great writing’*. Here, documentation acts to create evidence that will keep professional checks at bay from non-specialist colleagues in the current year. Interestingly, Michelle uses the same documentation to create evidence that will perform for an imagined future scrutiny in subsequent years. Secondly, Michelle is using documentation to justify her belief that playful pedagogies are responsible for the learning that children are demonstrating; *‘be the right thing and do the right thing’*. This is an important idea to Michelle, shown in her repeated phrase *‘we've done the right thing’* with the term *‘right’* suggesting an ethical and moral dimension to the pedagogical choices in the production of documentation for multiple audiences. Significantly, Michelle places documentation practices as gameplay, echoing Basford and Bath's (2014) view of teachers' and their assessment practices; *‘You got to play the game haven't you’* that suggests a cognisance of the multiplicities at work.

Furthermore, this echoes the ways that pedagogical documentation can have “two faces” (Knauf, 2015 p.233) that illuminate learning processes whilst demonstrating that playful pedagogies can be associated with the achievement of developmental norms. The documentation intra-acts across these two different discourses of pedagogy and curriculum and forges discourses together as complementary rather than contrasting. Thus, documentation acts to produce a new construction, a

*transformation*, where children's learning is positioned as being *both* playful and *achieving*.

Returning to the research documentation (figure 7) a diffractive reading of the theoretical fragment from Lenz Taguchi (2008, p.272) of "deconstructive talk" opens new possibilities for analysis. Talk that takes apart thinking can contest familiar and accepted practices, highlighting the ways documentation can act to challenge colleagues' perceptions. Michelle uses the documentation to position her practice as a deconstruction of formal notions of literacy, taking a gleeful pleasure '*I thought was just so clever. I was so pleased with myself*' (Michelle). The complex assemblage of assessment/play/regulation/scrutiny/formality can be interpreted as offering an ethic of resistance (Lenz Taguchi, 2008 p.280). Pedagogical documentation acts as a mechanism for the deconstruction of prevailing theories and offers resistance to more formalized practices and institutes a place for ethical decision making '*So people just kind of leave me alone...So that you're not happy to do stupid worksheets and dreadful things*' (Michelle). Here, digital technology provides space for reflection and the questioning of assumptions (Roder, 2011) and in addition acts to disrupt power relationships between Michelle and her colleagues (Kocher and Pacini- Ketchabaw, 2011). Significantly, pedagogical documentation acts ethically but also morally as a mechanism for Michelle to authorise her own practice (Basford and Bath, 2014; Blaise et al. 2017; Palmer, 2016; Pacini-Ketchabaw et al. 2015).

Likewise, the documentation is producing and transforming pedagogy in relation to a curriculum that acts to promote both play and achievement, deconstructing and constructing acts of resistance through the exercising of ethical choices. In turn, this suggests that Michelle is transforming new understandings of practice through the act of making and sharing of documentation:

Pedagogical documentation can be used in a way that makes it possible to understand it as making practice material for us to engage in further entanglements with and become different in ourselves as teachers – *being transformed in our new phenomenon of knowing and becoming-with practice, which makes practice real in a new way.* (Lenz Taguchi, 2010 p.88)

#### **4.2.4. Cut 4: Documentation intra-acting with the wider human world**

The fourth cut of documentation (figure 8) considers intra-actions with the wider human world outside of the school community. As the data collection enabled the participants to self-select what they thought constituted documentation in their practice, Michelle requested that her use of social media in the form of Twitter formed part of the data. Twitter involved captions and photographs of children's learning with related narrative and thus aligns with Elfström Pettersson's (2015) framing of documentation practices.

What is interesting to note from this example is how forms of documentation intra-act and influence each other. This mapping was explored earlier in the methodology chapter (figure 3) and reveals some of the differing actions and their diffracted patterns of disparity and overlap (Elfström Pettersson, 2017). Hence, the same observation of children takes different documentation forms, used in different spaces and tailored for different audiences. For example, the 'Gingerbread Man' tweet (figure 8) was originally made as part of a floor book, where teacher-led activities are used to plan and consult with children. Within this, the intra-activity is demonstrated between documentation and how it relates and influences each other. Through this, it is possible to see how teachers such as Michelle are navigating complex, inter-related and multi-documentation practices (Alasuustari *et al.* 2014).

By taking two fragments from Twitter along with theory taken from Canadian research (Kummen, 2014) documentation is positioned as agentic. Lenz Taguchi draws attention to pedagogical documentation as a kind of active entity "what it actively does or performs in relation to the pedagogical practice where it is produced" (2010, p.64). Similarly, matter can be perceived of as vibrant and able to "perform actions, produce effects, and alter situations" (Bennett, 2004 p.355). Through my findings I argue that documentation placed on social media can behave agentially by reascribing identity and value to the teacher, the school and ECE practice itself by operating beyond the local and onto a national stage.

The first sample of documentation is a tweet that draws attention to literacy practice through the theme of the 'Gingerbread man' story (figure 8). The photographs show a small group of children with their teacher sharing knowledge about the content, plot



and characters. In addition, the photographs give visual prominence to the teacher scribing the children's verbal language and arranging comments into a three-dimensional mind-map that also contains a prop of the Gingerbread character.

The first hashtags associated with the photographs ascribe value to the pedagogical practices associated with children's participation (#planning #consultingchildren #whatnext).

Here, documentation can fulfil a function of listening to young children's voices (Reggio Children and Project Zero 2001; Schiller and Einarsdottir, 2009). Yet, the second set of hashtags (@PieCorbett @Mindstretchers @TMPprimary) seem to take on a performative agency in their juxtaposition of the school's twitter address and the names of national figures and companies. What is inferred is that documentation on Twitter can position the teacher, school and practice outside of a locality and perform in ways that connect to national figures, echoed in Michelle's enthusiastic narration *'I got really excited by trying to engage with much bigger... I realise the power of the hashtag'* (Michelle). Michelle actively seeks this juxtaposition *'Pie Corbett was on my head hunting list to get people to retweet me'*.

Furthermore, the enthusiasm persists in the second tweet, where the smiling teacher is pictured with a bottle of wine. A second twitter feed called 'TMPdeputy' (pseudonym) is used here and was created after a change of job role for Michelle. The written language is celebratory and draws attention to the teacher's success at gaining a retweet associated with the character in the well-known text 'The Gruffalo' (Donaldson and Scheffler, 1999). This intimates that a retweet by a national figure is a positive action to be encouraged by the senior staff, worthy of reward and accolade *'Absolutely, we bribe our teachers'* (Michelle). Here, pedagogical documentation acts and performs (Lenz Taguchi, 2010) as a mechanism to shift the status of the school from a local to a national stage. The enthusiasm of Michelle is demonstrated in the sensory traces of laughter recorded in the transcript, as the use of social media ascribes value to the school's ECE practice on a national stage yet likewise brings attention to her own pedagogical practice and leadership.

"In the doing of pedagogical narrations, artefacts were produced that were not merely representations of our collaborative thinking. Rather, the artefacts that emerged-in between the material, the discursive and the participants, were themselves agentic; they invited us to shift our gaze and our conversation, and thereby new meanings and realities were produced."

(Kummen, 2014 p.808)

## Documentation intra-acting with the wider world

“

M: Our twitter at that point was still really parents. Not really at that point because it kind of all overlaps but those tweets are kind of...but then really I got really excited by trying to engage with much bigger....So was in the world of Twitter obviously everyone's on Twitter It's dead exciting.

J: It is!

M: So once we became a public entity and other people started following us I was like 'ooh' I realise the power of the hashtag or the power of a @. So after that we started linking things in, we went to Gulliver's World so I'd link in Gulliver's World. And subsequently Gulliver's World has retweeted us. Wherever we went I'd put it on. And similarly when we've been on training and we've adopted approaches. I've linked them in. Going through the storytelling and using it for writing and ideas So Pie Corbett was on my head hunting list of get people to retweet me.

J: Aghhh [laughs]

M: That was a particularly successful one as Mind stretchers both you and Pie Corbett retweeted.

J: [jokingly] Boom boom boom.

M: [laughs] Ka-ching. So there's another one. Another Pie Corbett.

J: Yeah yeah.

M: So that's just dead exciting isn't it?

J: Really exciting

M: Because I know that everybody that follows Pie Corbett will see what he said and millions of people follow him, well thousands.

J: He is a big public figure isn't he?

M: So I kind of like the idea that our little school in Thommere Park is now out there and somebody who is dead clever talking to us.

(Michelle and Jo)

“

M: We've been retweeted as the Gruffalo, the real Gruffalo. Patrice got 'Tweet of the week' for that.

J: Was Patrice very excited for that?

M: She was, she got a bottle of wine for it. There we go 'Congratulations for winning this week's Tweet of the week' with a great retweet from the real Gruffalo and it is on the wall.

J: It doesn't get better than that.

M: Absolutely, we bribe our teachers.

J: To the world and back?

M: Absolutely.

(Michelle and Jo)

”



Talking time- "what did you like in The Gingerbread Man?" #planning #consultingchildren #whatnext?@PieCorbett @Mindstretchers primary



10:43 PM - 18 Jan 2017

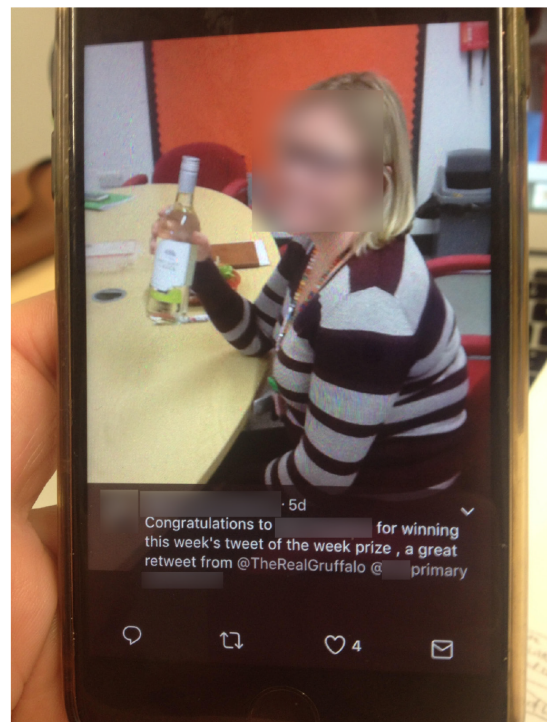


Figure 9 Documentation intra-acting with the wider world

A material-discursive reading of the elements contained in the research documentation offer an alternative to the “assessment game”, with the teachers and the school becoming powerful and confident players (Basford and Bath, 2014 p.119). Positioning documentation on a national stage brings an identity to the school where their efforts are worthy of being attached to figures of status that in turn assigns value “representative of their social, cultural and historical heritage.” (Basford and Bath 2014 p.129). A sense of value in the public awareness of the ECE practice of the school and of the community adds to this status. Moreover, this is supported through the comment *‘So I kind of like the idea that our little school is now out there and somebody who is dead clever talking to us’* (Michelle). Value is ascribed to the positioning of the school outside of a local entity, putting the school *‘out there’*, associated with national figures that are *‘dead clever’*, thus making the school worthy of that attention. Michelle’s language and sensory responses reveal her excitement for this type of documentation acting to generate dialogue about pedagogy and learning outside of the immediate face-to-face school environment. Documentation now moves beyond a record of achievement and a revised status and identity emerges that provokes a change in thinking from local to national. Kummen describes this as a production of an artefact through the documentation process that acts to “shift the teacher gaze” (2014, p.808).

### **4.3. Cutting the data another way *with the non-human world***

#### **4.3.1. Cut 5: Documentation intra-acting with spaces**

The fifth cut of documentation (figure 9) stretches the definition of pedagogical documentation to encompass how it is affective within school spaces, prompted by Michelle’s comment in the blog entries:

*‘But the more I think about your research and consider my practice the more I think that I view my entire room is one huge documentation of learning.’*  
(Michelle)

Significantly, this comment led to a flurry of data collection that moved pedagogical documentation from a static, isolated entity to a conceptualization of documentation intra-acting within the spaces of a classroom and school entrance hall and beyond the

confines of the school walls. The theoretical ideas I am diffractively reading the documentation through are drawn from ideas borrowed from childhood geography (Kraftl *et al.* 2012) that consider how place and space-making can construct and disrupt dominant discourses (Jones *et al.* 2016). I also consider how including other visual elements, such as school displays and artwork, can be considered as a material-discursive disruption and reproduction of how children, families and communities are positioned in terms of aspiration, class and socio-disadvantage. The complexities of how teachers disrupt but unintentionally reproduce deficit discourses will also be explored. Teachers speak of their intent to reposition how children are perceived but at the same time appear to reinforce deficit views: “discourses are sustained and reproduced through educators’ class-based assumptions, high-stakes assessment practices, and class-biased curriculum.” (Hunt and Seiver, 2018 p.342)

Firstly, the research documentation (figure 9) shows photographs of Michelle’s classroom walls that include photographs, mark-making and paintings alongside adult written signs, notices and narrations. All these components are found within definitions of pedagogical documentation (Carr and Lee, 2012; Rinaldi, 2006). However, Michelle in her blog entries places emphasis on what the documentation is doing within the space and over time to influence the emotional responses of children, nurturing a sense of belonging and feeling part of the school community ‘*I want the space to feel like it belongs to my children so it grows and develops as they do*’ (Michelle). This suggests that documentation intra-acts with the classroom space as the positioning is purposefully chosen for its daily proximity to children and their families ‘*...these walls are on our carpet space where we welcome children and gather for a story before hometime*’ (Michelle). Leander and Sheehy (2004) posit that space is socially constructed, dynamic and relational rather than empty and waiting to be filled (p.1). Equally important is the element of time in Michelle’s interpretation of what the documentation is doing within the space, suggesting an intra-action between the documentation itself, the coming and going of children within that specific space and a dynamic evolution of the documentation over a period of time. Likewise, this can be related to Barad’s construction of *spacetime mattering*:

the past was never simply there to begin with and the future is not simply what will unfold; the ‘past’ and the ‘future’ are iteratively reworked and

enfolded through the iterative practices of spacetime-mattering (Barad, 2007 p.315)

Michelle's also emphasises how documentation can support assessment processes:

*'I suppose a fourth aspect is that of assessment and progress as we can see at a glance how much children have grown in confidence and skills in mark making' (Michelle).*

Another essential point is that the assessment process is less significant to her but seems to acknowledge how teachers operate within a climate of multi-documentation (Alasuustari *et al.* 2014). Here Michelle is acknowledging how she navigates an English policy context that emphasizes outcome agendas but is also attempting to position assessment within a more social and dynamic frame (Basford and Bath, 2014).

Moreover, the blog entry captured in the research documentation (figure 9) further stretches and extends the role of documentation. Now, the documentation can be framed as an intra-action with rejecting and redefining children within certain socio-economic circumstances as being deficit and thus challenges dominant discourse (Jones *et al.* 2016):

*'... it is very important to Margaret and myself that our children receive a quality offer and that the school does not use the fact that we are in an area of such high deprivation as an excuse for the children not doing well... Visitors to the school comment on the aesthetics of the building all the time and say how it portrays an image that you might not expect in terms of the locality and its reputation.'* (Michelle)

If we overlap Michelle's earlier comment that she positioned her room as a whole documentation of learning, alongside the significance placed on the aesthetics of the school signposted in another blog entry, this diffracted conflation illuminates the role the created space plays in terms of how children and families are being positioned. Documentation within the space of the classroom acts as a material-discursive troubling of the child as being disadvantaged and therefore educationally lacking, what McNamara and McNicholl (2016) describe as a discourse of disadvantage.



“

Maybe I'm getting carried away Jo - and tell me to hush if so! But the more I think about your research and consider my practice the more I think that I view my entire room is one huge documentation of learning .....I want the space to feel like it belongs to my children so it grows and develops as they do - from being quite bare at the start of the year to being jam packed full of lots of stuff now.....

(Michelle)



## Documentation intra-acting with space

“

But everything else, wall displays, the Tapestry, the learning stories, the floorbooks, all of that for me is about belonging, and children seeing themselves as being represented in this place, and feeling valued and feeling empowered and important, and as though they are agents of their own destiny, does that sound too big? ....So all of that is about the children and the families and their empowerment and seeing themselves as seeing that this place and this thing is about me and I'm important'

(Michelle)

“

...it is very important to Margaret and myself that our children receive a quality offer and that the school does not use the fact that we are in an area of such high deprivation as an excuse for the children not doing well - we believe that with a high quality early years offer the gap between the most deprived and the least (and national) is pretty much closed - therefore as children move through school there is no reason why they can't continue to do as well (if not better) in terms of attainment as their less deprived peers. Visitors to the school comment on the aesthetics of the building all the time and say how it portrays an image that you might not expect in terms of the locality and its reputation. Margaret is conscious of the limited nature of experiences our children have and so a high priority is placed on giving the children experiences such as theatre / trips / visitors / sporting opportunities / residential - all children learn an instrument etc - in fact we are talking about putting together an "offer" which every child would have as they move through school. We want the environment to reflect this.....  
....My displays serve the following purposes, in order of importance

- they reflect the children and families so they see themselves replicated and the classroom as belonging to them
- they reinforce the learning that has taken place and hopefully prompt further learning (for example - the gingerbread man display which has the photos of the children "doing the actions" to retell the story...
- they always contain information for the observer "What are we learning here?" - intended for adults (inspectors / parents / other staff) so I suppose this is me preempting challenge and ensuring the work we do is given enough kudos. "
- they make the room look better but hopefully not overwhelmed !

(Michelle)

”



“

M: Okay so...[muffle] Originally it was designed as an assembly space.

J: So a hall? Really that was going to be your hall?

M: [muffled talking as beginning to walk] But it just screamed out at me as an art space, a public area. I wanted it to have a special wow factor [walking down stairs] And what we try to do is mirror whatever cultural events happen in the city area. What it has developed into is this art exhibition type area.

J: So a local city response?

M: [muffle] This is our Comic-Con. So when that exhibition was going on in our area, the children came in in their own comic costumes we had our own day Comic-Con for the day. We did the same for the Remembrance day stuff and made the red glass poppies. [children's voices]

J: Oh yeah I think I saw that, I think I saw that when you had it up.

M: We then took the children to see the real one and then we created our own back in school. We used in that way to mirror those cultural events, to make them more aware. [muffle, childrens voices, staple gun] The other way we used it is [muffle] We had things like whole school projects on immediate school locality, city region and then London. [muffle] So EYFS and Reception did the local community, KS2 went to London, so they did where they live.

J: So you go, micro to macro. [laughs] I get ya.

M: [muffle.] The school sent to [name local city] and KS2 went to London as well and they researched as buildings in their locality [children's voices] And from that staff were able to discover all these cultural things that children just didn't know. Children from Y3 and 4 didn't know you could get a ferry from [name local city] and didn't know where it went [children's voices, staplegun]

(Margaret and Jo, walking down steps of hall)



“A global pedagogy of place, which aims to find the interlinkages between local and global, offers potential for critical engagement across the local/global divide” (Duhn, 2012 p.101)



“Just as social reproduction—including the perpetual marginalization of young working-class children and youth of color—happens within specific spatio-historic dialectics, the disruption of those practices also happens within specific spatio-historic dialectics. In other words, place and space-making for and with children and youth is a political act, and all educators and educational researchers are engaged in such politics. Spaces can be produced to control, indoctrinate, colonize, and discipline young bodies/ minds just as they can be created to actively support creativity, curiosity, expansive subject positions, and social critique.”  
(Jones et al. 2016 p.1153-1154)

Figure 10 Documentation intra-acting with spaces

In the language employed by Michelle (*'it portrays an image that you might not expect in terms of the locality and its reputation'*) there seems to be a reproduction of the deficit discourse that a school in a low socio-economic area would be assumed to have children *'not doing well'*. Moreover, the powerful structural influences of standards agendas on teachers' professional dialogue is apparent, demonstrating the myriad of discourses consciously and subconsciously at work. However, the discourse of disadvantage is primarily subverted by the emphasis placed on how the documentation within the classroom space can act as a means to nurture participation and belonging of the children and families to the school:

*'But everything else, wall displays, the Tapestry, the learning stories, the floorbooks, all of that for me is about belonging, and children seeing themselves as being represented in this place, and feeling valued and feeling empowered and important, and as though they are agents of their own destiny, does that sound too big?' (Michelle)*

Michelle intimates the scale of that ambition: *'does that sound big?'*. Previous research in the field has connected pedagogical documentation with pedagogies of listening (Rinaldi, 2004) and also as a way to create interaction between parents, children and teachers (Reggio Children and Project Zero, 2011). Michelle is suggesting that there is a larger endeavour at play that connects pedagogical documentation with participation (Picchio *et al.* 2014). More importantly, the term *'belonging'* is repeated across Michelle's data, underlying the significance of how much the documentation within the space is intended to nurture that abstract and complex emotion. Yet, there is a cognisance of other professional eyes as an audience, inferred by Michelle's clear-eyed comment that the space is:

*'intended for adults (inspectors / parents / other staff) so I suppose this is me pre-empting challenge and ensuring the work we do is given enough kudos' (Michelle)*

The documentation is positioned as a defence against challenge and in addition an assertion of the status of playful pedagogies, implying an awareness of the multiple roles that documentation can play (Alasuustari *et al.* 2014).

A second fragment of data intersects photographs, narration and records of the movement and sounds of the head teacher (Margaret) conducting an intraview by walking through the school's shared spaces, pausing, talking and descending the stairs



(figure 8). The overlaying of these diverse human and non-human factors such as ambient sound, movement and visual materials, illuminate how meanings are produced within specific specialities through the intraview process (Kuntz and Presnall, 2012).

The motivation for this intraview came from Michelle's statement of how she viewed her classroom like a huge documentation of learning. Significantly, this led to a reconceptualising and broadening of the focus of the research that moved beyond how pedagogical documentation intra-acts within an ECE classroom space. Here, the focus broadens the gaze to consider how communal school spaces intra-act with child created artwork and artefacts and a whole school community across the primary age range in order to:

reassemble early childhood spaces as vibrant, social-ecological-material-affective -discursive ecology in which humans and non-humans are always in relation. (Pacini-Kerchabaw *et al.* 2016 p.2)

As the intraview moved from seated to walking, the conversation turned to how the school's shared entrance space had been conceived as an art installation and exhibition rather than a traditional wall display:

*'But it just screamed out at me as an art space, a public area. I wanted it to have a special wow factor [walking down stairs]*

*So, they've enjoyed creating that environment they are tremendously proud of, that the children are tremendously proud of, and that everyone who walks through the door tends to go 'wow'. That feeds itself for everybody.'* [pausing and talking halfway downstairs] (Margaret)

The photographs (figure 8) show a large installation of artworks, written work, sculptures and artefacts made by children from across the primary age range exhibited through two floors high that have brought some local attention to the school (*name of local authority* Online, 2015). The installation is themed around Comic-Con, a large-scale touring science-fiction exhibition that had recently been to the local city and combines fan conventions and marketing events (Gray *et al.* 2017).

The intraview fragment contained in the research documentation explores the headteacher's perception of the communal space as a means of fostering a sense of belonging for a local community that had historically been excluded from educational

spaces. She uses the metaphor of a mirror reflecting back but also able to create something new:

*'Well, I think that the best organisations are reflective of the community that surrounds them. Equally show them a different way was well, it's a fine line. So, a school is about of community being able to see themselves in it. Like a mirror, they can see their reflection in it but equally something else looks back at them that they can reflect on.'* (Margaret)

What this infers is that a creation of a space and school culture can send messages of value and aspiration to children and families. Artwork material intra-acts within the space to create an affect saturated with aspiration, positioning the materials as agentic (Elfström Pettersson, 2015) and also able to condition narratives. In the space of the hallway and stairs, the artwork can be considered as a means of reconditioning the narratives of local families to aspire beyond their locality. However, the language used by Margaret *'show them a different way'* to describe the imagined aspirational purpose of a hallway to parents can be said to both resist and reproduce deficit discourses. Deficit discourses are employed in the assumption that children from lower socio-economic groups must be lacking, which is a contested view (Grainger and Jones, 2013). Margaret's comment that a *'different way'* is required by parents, may well reveal her class-based assumption that children from low socio-economic groups might need or want a *'different way'* other than offered by existing parenting styles, echoing the view of Hunt and Seiver (2018) view that educators can sustain and reproduce discourses through their class-based assumptions and class-biased curriculum (p.2).

The imagery included in the research documentation shows a hall and stairwell filled with large paintings, sculptures and text inspired by Comic-Con and super-heroes. Though the transcript suggests the visual imagery is not just a record of the Comic-Con event to children, but rather is intended to conjure a sensory and experiential affect (Rose, 2016). The affect is compounded by some of the auditory traces that were possible to capture as part of the intraview (Kuntz and Presnall, 2012), such as staple-gun noises and children's excited chatter. The walking nature of the intraview captures the ambience of the hall and stairs being created, with adults putting up material with the staple-gun and children moving in a space they have participated in creating.

Notably, there is also an intra-action between the created material, space and place of the hall and stairwell with a larger discourse that emphasizes to families that their cultural identity reaches beyond the localized socio-economic context:

*'We're linking to what's happening locally and culturally [sound of staple gun] and try and make it meaningful for the children. We try to include it with the children, make them part of that. Because I think a part of that being a global citizen is experiencing life beyond the local community.'*

*'I think that what we have underestimated is that in providing a facility like this is that impact it has had on the aspirations of the community. That sends that 'Yes we deserve that'. Almost the mirror image of what I've said I want to communicate to school, for the children to believe, this is us, this is how we do it, this is how it is around here. I think the new build has given the community a sense of 'This is us' 'This is our standard' which I think has had massive regeneration impact' (Margaret)*

A broader stage is played upon through these final language fragments, with attention being drawn to how the created space can intra-act and disrupt the influence upon local children. The headteacher here contends that by creating a space with children's artwork wider ambitions of local regeneration become visible, suggesting subversion of norms associated with socio-economic educational disadvantage. A localised emphasis seems to juxtapose with a global aspiration of ambition for the families to lift their head above and beyond their locality, suggesting a "global pedagogy of place" (Duhn, 2012 p.101). In effect, this forges a connection from local to a more global context that enfolds a larger aspiration expressed by the headteacher *'Because I think a part of that being a global citizen is experiencing life beyond the local community.'* (Margaret). Jones *et al.* (2016) would argue that spatialities are bound up with "sociopolitical ideologies of their time/space" (p.1153).

This suggests that school spaces that are built around large-scale artworks can intra-act on a political and ethical stage and can challenge and disrupt how communities are thought about, enacting a "disruptive potential of a discourse of hope" (Moss, 2015 p.226). Nevertheless, the deficit discourse still informs Margaret's thinking in terms of low expectations (*'try and make it meaningful for the children'*) which assumes Comic-Con would not hold meaning in the first place. What this may reveal is Margaret's assumption that travelling outside of a local community holds cultural capital and thus negates the capital held in local communities that could suggest

some middle-class bias and “pathologisation of working-class language and parenting practices” (Grainger, 2013 p.100). Furthermore, the language employed by Margaret ‘*Yes we deserve that*’ when talking about her parents’ reaction to the created aesthetics might suggest a charitable act on her behalf, revealing further nuances of the deficit discourses at work upon how teachers’ conceptualise their relationship with local families.

Moving through the large space brings new potentialities for how child made artwork as well as documentation of children’s learning can be seen as agential and performative within the classroom and school but also in the *place* that the school inhabits (Lenz Taguchi, 2010). Through a diffractive reading that overlays the visual images of the Comic-Con installation, the assemblage of sound, movement and voice through the headteacher intraview, I argue that the communal school space, along with the classroom space, are challenging the dominant discourse of disadvantage (McNamara and McNicholl, 2016). Yet, a form of “concerted cultivation” (Lareau p.2) is employed that foregrounds middle-class parenting patterns. Vincent and Ball (2013) argue that middle class parents attempt to reproduce their class through their parenting through a range of enhancement activities, and a visit to an exhibition like Comic-Con could well be described as reflecting this type of family practice.

Moreover, by overlaying the concept of place, a larger interpretation of the intra-actions comes into play that positions the visual contents and communal space within a much wider dialogue about how children can participate in a spatiality (Jones *et al.* 2016), but also attempts to subvert disadvantage discourses. If the artwork is positioned within the specialities of the school and acts to subvert certain discourses, then the agency for that subversion occurs “within and between the spaces where children’s lives happen” (Seymour *et al.* 2015 p.1).

Somerville’s (2013) research on how place relates to aspiration and reconstructs Barad’s (2007, 2013) *spacetime mattering* as *placetime mattering*. Here, attention is drawn to “[p]laces not as points or areas on maps as integration of space and time; as *spatio-temporal event*” (Massey, 2005 p.130). In the intraview, Margaret directly connects the creation of artwork within a school hallway and stairs as part of the work to raise local aspiration. Furthermore, this suggests that the materiality of the

artwork plays an agential role within the spatiality of the school, positioned to raise aspiration as an act of subversion to a dominant discourse of disadvantage that has transformative potential: ‘...everyone who walks through the door tends to go ‘wow’. *That feeds itself for everybody*’ (Margaret).

Nonetheless, what is also apparent is an assumed parenting role by teachers such as Margaret in positioning Comic-Con as ‘*experiencing life beyond the local community*’. By attempting to bridge perceived gaps in cultural capital with families from low socio-economic groups Margaret assumes a parental responsibility. Lareau (2011) describes this as a form of “concerted cultivation” (p.2) that draws from middle-class parenting styles where organised activities nurture cultural and social advantages. In the language employed by both Michelle and Margaret, discourses of disadvantage are challenged through the practice of developing such rich visual environments that employ documentation practices, but also at the same time reproduce the deficit discourse of low expectations for children from low socio-economic groups that are assumed to be lacking in forms of cultural and social capital. This demonstrates the range of influences within teachers’ professional conversations where a number of discourses are both consciously and subconsciously at work.

The final cut of data considers how one family and their teachers intra-act with and over time by overlaying four different documents selected over the course of one year (figure 13). The four documents along with the related transcripts and blog entries all relate to a brother, sister and mother of a family that have had a life-changing event in the death of the children’s father. A diffractive reading of these elements reveals how the documentation performs and acts towards the family in multiple ways and at different times. There are two theoretical ideas that are being diffractively read to put this argument to work. Firstly, Barad’s concept of *spacetime mattering* (2007, 2013) helps me read the entanglements of obligations within the act of documentation. Secondly, Lenz Taguchi’s (2010) theorisation of pedagogical documentation acting as “slowing down and speeding up” (p.95) mechanisms supports a notion of how complex emotions that arise from bereavement are intra-acting with and through time.

### 4.3.2. Cut 6: Documentation intra-acting with time

The first image shows a photograph of a classroom space with images of children reading bedtime books at home. The photograph emphasises homely elements such as soft toys and muted colours, embedding cultural messages to families that value social practices such as book sharing. The narrative and photographs were created through the blog and gives a sense of how a classroom space evolved over a year:

*'Moving chronologically through the year - this happened! We wanted to encourage home school links and promote the importance of bedtime stories so we set a little challenge in our information letter - we asked parents to send us in photos of the children having a bedtime story on Tapestry.'* (Michelle)

Reference to time is stated from the start, suggesting that this image had a role in supporting home-school relationships and emotions associated with belonging. Here, the classroom environment is acting to show an image of the daughter as relaxed and emotionally well at home, when the school's experience is contrary to this:

*'Isabella is selectively mute [sic] and chooses not to speak in school - she does a bit now, at this point she was VERY serious and almost frozen when approached by an adult - it was lovely to see her so happy and relaxed, and I think it helped her relax a little in school.'* (Michelle)

There is an intra-action at work between how Isabella is presented at home (smiling and relaxed) and the contrasting representation of the same child in school (mute and frozen), *both* versions of the child existing simultaneously. When these images and text are diffractively read through Barad's concept of *spacetime mattering* (Barad, 2007, 2013) there are some entanglements at work that reveal how images and time can intersect:

This 'beginning', like all beginnings, is always already threaded through with anticipation of where it is going but will never simply reach and of a past that has yet to come. It is not merely that the future and the past are not 'there' and never sit still, but that the present is not simply here-now. Multiply heterogeneous iterations all: past, present, and future, not in a relation of linear unfolding, but threaded through one another in a nonlinear enfolding of spacetime mattering, a topology that defies any suggestion of a smooth continuous manifold. (Barad, 2013 p.18)

The images within the classroom space are demonstrating a future version of Isabella that aspire to remind the child and family that what happens at home is possible at school. Consequently, two versions of Isabella exist at the same point, suggesting an

aspiration from the teacher that better times are coming. This suggests that the two images perform and intra-act with present and future Isabella, enfolding time into the space of a classroom to create a sense of belonging:

*'...photos of her at home which we put in the cloakroom area helped her feel more like this place was for her!' (Michelle)*

The second documentation is six months later and is focussed on Isabella's younger brother Teddy, who has just started nursery class. At this point, the father of the family has died suddenly and this learning story was sent home in the time before the funeral took place *'I think my message to Mum is 'He's fine he's making some friends he's having a nice time'* (Michelle). The documentation takes the form of a learning story and is addressed to three children, with one of the children being Teddy. The photographs emphasise a busy classroom, with children of both genders playing alongside each other with a shared purpose and manipulating large scale construction bricks, displayed purposely in the classroom space to emphasize the connection between play and learning *'This one was up in the building area I only took it down the other day because it got tatty'* (Michelle). The text acknowledges the play action and gives value to the children's spoken language. Conversely, the transcript reveals how documentation acts to affect emotional responses associated with compassion at a time of crisis within a family:

*'So to some extent this is me saying to the mum he's alright he's had a little go at talking to me he's mixing with some other children, but to be fair he is only quite side by side play, but at least he's there with other ones and I got that in a picture. So that's quite nice and it's a start isn't it?' (Michelle)*

The documentation and transcript, when read diffractively through Barad's concept of *spacetime mattering* (2007, 2013) illuminates how documentation materializes obligations that teachers have to families:

performing the labour of tracing the entanglements of making connections visible, you're making our obligations and debts visible, as part of what it might mean to reconfigure relations of spacetime mattering.  
(Barad, 2012 cited in Juelsjkaer and Schwennesen, 2012 p.20)

# Documentation intra-acting with time

## Oct 2016



“

It was also very significant that Isabella's mum sent us a photo of her beaming and looking so happy, Isabella is selectively mute [sic] and chooses not to speak in school - she does a bit now, at this point she was VERY serious and almost frozen when approached by an adult - it was lovely to see her so happy and relaxed, and I think it helped her relax a little in school, similarly when she took Beat Baby home the photos of her at home which we put in the cloakroom area helped her feel more like this place was for her!

(Michelle)

”

“...when using pedagogical documentation in an intra-active pedagogy: the 'horizontal' and speeding up movement creates the smoother space necessary for the invention and creation of new becomings, whereas the 'circular' slowing down movement of re-enactments and counter-actualisations is necessary for us to make ourselves aware of the structural conditions, and the thickness and multiplicities in the learning events.”

(Lenz Taguchi, 2010 p.101)

## Apr 2017

“

M: Yeah Teddy again, so this time this is just about showing Mum and the children. This one was up in the building area I only took it down the other day because it got tatty so here I think my message to Mum is 'He's fine he's making some friends he's having a nice time' I don't know if you remember but I spoke a little time on the blog about a little girl called Isabella, this is her brother.

J: Younger or older?

M: Well they are both in nursery at the same time and Isabella doesn't speak to anyone so I wanted to really reassure mum.

J: So does Teddy talk?

M: A little bit not a great deal but to be fair to them I've had the most horrendous thing, their dad died and really suddenly, he just dropped dead.

J: Oh my God

M: So they are going through a terrible terrible time, the poor family. So this is just after the Easter holidays after when his dad died.

J: So a week later? If not days after he died?

M: Yeah yeah this is before the funeral that this happened. So they've had a terrible time but then he does speak a little bit. So here we go [reads from documentation] 'Teddy I was proud of you, 'this is a big one' as he lifted up the big triangle block'. So to some extent this is me saying to the mum he's alright he's had a little go at talking to me he's mixing with some other children, but to be fair he it is only quite side by side play, but at least he's there with other ones and I got that in a picture. So that's quite nice and it's a start isn't it?

(Michelle and Jo)

”







Accordingly, in this instance the learning story performs at a specific time for a specific purpose and enfolded pedagogical documentation within a material-discursive act that overlays discourses of care and ethics (Taggart, 2016). Here, this signals that the *when* and *where* of pedagogical documentation can be significant and points to how time comes to matter in how documentation intra-acts.

Moving to the end of the school year in July 2017, a third data fragment shows how documentation is used to track and assess progress of children's learning. Isabella's data makes up the last row of the tracker (figure 10). The documentation that has been selected so far acts as a mechanism for communication with parents, celebrates and promotes learning and creates a sense of belonging for families. Yet this documentation is intra-acting more explicitly with teachers and discourses associated with a curricula policy context that emphasizes accountability (Basford and Bath, 2014; DfE, 2017). The image shows an Assessment Tracker (EExAT) (Early Excellence, 2016), which is a proprietary on-line system updated at points in the year to track and report curricula developmental milestones.

*'So, they all have an individual tracker. Let's find Isabella, she's interesting isn't she because she's a little selective mute. So, they all have an individual tracker that you can print out... So, whenever the assessment window opens you go along and you say what are they like currently'* (Michelle)

The image shown in the research documentation (figure 10) shows a very different visual of an abstracted mathematical graph, with labels, names and stark primary colours with the child positioned as a string of colour coded data. Tellingly, there are no images of children, play or informal language that might indicate the complexity or variety of learning that are addressed to children or parents. What is apparent is a numerical data driven assessment, with a predominance of colour indicating different levels of progress against normalised curricula statements and is strikingly different than the other documentation types. Colours are symbolic and intentional (Rose, 2016), with red signalling a lack of progress and green suggesting expected progress:

*'you can see where she started, was here and where she's moved to is here. So over time you can see the spread and you can see the peaks and troughs. You can see she's doing quite well. She's actually age related in a couple of little bits. But then when you get to speaking.'* (Michelle)

Michelle is able to make sense of the tracking with her knowledge of the child's circumstances. Compared to other documentation types, the tracker holds a particular significance within a standards-based discourse. Hence, the material of the documentation intra-acts with standards-based discourses and emphasizes that within the English policy context achievement and progress are valued (DfE, 2017). It also reveals that Michelle manages accountability agendas within an "assessment game" (Bath and Basford, 2014 p.119) and resonates with Bradbury's (2018) view that datafication represents children as either "fitting the norm or deviating from it" (p.12). Michelle demonstrates herself as an expert game-player, by using the data as a protective mechanism to create a figurative space that staves off scrutiny and assert her moral status as a guardian of ECE practice:

*'I do love all that but only really if it's useful and not for data's sake. If it's useful to fight your corner to do what you believe is right or like for example, I suppose is showing the progress and things like that. You can say everything's going marvellously- can you leave me alone? We haven't got a problem with phonics and we haven't got a problem with whatever it is. That's useful. If it's useful to fend people off like Ofsted then that's good but it's not just for it's own sake.'* (Michelle)

Lenz Taguchi (2010) considers that documentation practices can act as a distorter of time:

when using pedagogical documentation in an intra-active pedagogy: the 'horizontal' and speeding up movement creates the smoother space necessary for the invention and creation of new becomings, whereas the 'circular' slowing down movement of re-enactments and counter-actualisations is necessary for us to make ourselves aware of the structural conditions, and the thickness and multiplicities in the learning events. (p.101)

When diffractively reading through Lenz Taguchi's (2010) notion, the documentation enacts a slowing down movement that creates an enabling space for Michelle to practise without challenge and reveals some of the larger factors at play that influence learning.

The fourth documentation fragment (figure 10) is from Tapestry and captures Isabella in her Reception year. The images emphasize a smiling and relaxed face of Isabella and her teacher and the Tapestry narrative captures an on-line dialogue between school and home. Isabella's mother has posted a video of her talking about her

friends whilst at home and Patrice, her Reception teacher, has posted a video of herself in response that praises learning and expresses her delight:

*'Hi Isabella, I absolutely loved that little video clip that you sent me yesterday where you said all your teachers' names and your friends. Thank you so much for sending that to me, it was lovely. I want to send you a little message back to say I'm so proud of all the lovely learning you have done in school and I can't wait to hear about your half term' [sound of kiss being blown]. (Patrice's video for Tapestry to reply to parent's post)*

In the intraview Michelle recounts this event and explains other connected documentation practices:

*'You know Isabella's dad died very suddenly, and Patrice's dad died. So she's made a book of pictures of her dad and Isabella's dad so she can talk to her about it.'* (Michelle)

Patrice, the reception teacher, had devised documentation that draws from her own family photographs of her father and combines them with Isabella's father's photographs. The documentation in this instance entangles the present child and teacher, together in mutual acts of bereavement with past photographs of their fathers. What is revealed is a nuanced cluster of elements illuminating the complex duties that bind teachers to their children and in turn, their families and communities. Again, this connects with concepts of *spacetime mattering*, with the documentation acting with a teacher's sense of duty and empathy "making our obligations and debts visible" (Barad, 2012 cited in Juelsjkaer and Schwennesen, 2012 p.20). Also, the documentation can be seen acting as a speeding up process enabling forceful, moral actions aligning with pedagogical beliefs (Lenz Taguchi, 2010). Furthermore, the documentation performs within a discourse of accountability but also intra-acts with how time is perceived for personal and professional contemplation and action, creating ethical spaces, encapsulated in Patrice's blowing of a kiss to Isabella, moving between the virtual spaces of home and school.

Thus, it can be argued that a reconstruction of familiar accountability discourses is taking place and that reconstruction has the potential to transform. Documentation is performing as an agent in Isabella and her teacher's shared bereavement and can also be positioned as agential in transforming what accountability is understood as.

Moving from an accountability discourse that acts to make teachers complicit within a standards agenda of tracking progress against literacy and numeracy norms, in its place accountability is transformed to mean an ethical obligation and duty to a bereaved family. Such a frame echoes Basford and Wood's (2018) argument that documentation can be framed as a relational and ethical practice that has the potential to deconstruct discourses.

#### **4.4. Summary of findings**

The forms of intra-action that have emerged from the diffractive analysis have two broad actions, intra-actions that create and intra-actions that resist. Moreover, these resisting and creating actions have transformative potentialities for ECE teachers to assert their pedagogical practice to act against dominant discourse, aligning with the construction of documentation as performative and vibrant (Bennett, 2004).

However, the construction of acting back against discourse is perhaps too simplistic, as teachers will act within and against discourses simultaneously, as seen in how Michelle uses social media to promote playful learning with hashtags (#readytowrite, #creative). This suggests forms of assessment gameplay where documentation can be used in multiple ways to support and disrupt multiple discourses.

Firstly, intra-actions have emerged that act to create belonging and value to children and families. For example, this is demonstrated in the learning story of Tyler's water play that acts to reassure him of his place in the classroom (figure 5) and Michelle's tweet about the preparation of Rainbow Spaghetti (figure 6) that acts as a mechanism to hold children in her mind, within the virtual space of social media (Fletcher *et al.* 2014).

There are also examples from the research documentation where intra-actions create status and identity for the school. For example, the Gruffalo tweet (Donaldson and Scheffler, 1999) connected the school to national figures (figure 8) and the Comic-con inspired artwork acted to create belonging to a locality (figure 9). Duhn (2012) would

describe that as enfolding pedagogies of place. As intra-actions create complex notions of belonging and value, pedagogical documentation plays a part in that enactment and therefore can be seen as agentic. Barad (2012) would argue that the enactment of agency emerges through the responses between matter and humans. In my findings, the matter is the documentation itself occupying physical and virtual spaces where intra-actions emerge that create human senses of belonging, value and status.

Secondly, intra-actions have emerged that act to resist professional challenge. For instance, the Tapestry observations made for 'imaginary children' (figure 7), act to offset the scrutiny of a subject co-ordinator who may question play pedagogies. The use of data to summarise developmental milestones data for Isabella (figure 7) acts to resist regulation from external bodies such as Ofsted. Documentation in this resisting intra-action is part of an assemblage that sparks deconstructive talk for teachers (Lenz Taguchi, 2008), and that acts as a way to challenge dominant ideas.

There is also some conflation of creating and resisting intra-actions, where documentation seems to shift the gaze (Kummen, 2014), seen in the floorbook example of KC and Ethan, where the status of children is reassigned (figure 5). Documentation that acts to shift the gaze and status is doing more than resist, suggesting that intra-actions are occurring that are re-constructing but additionally are transforming. Lenz Taguchi (2010) suggests that material objects are performative and agentic and "they have force and power to transform our thinking and being in a particular space" (p.4). Barad (2007) argues that with notions of interaction there is an assumption that agency precedes and resides within individual elements. Intra-action on the other hand, posits that agency emerges through the entanglement of human and non-human matter.

The act of constructing and sharing pedagogical documentation make intra-actions that fluctuate between creating and resisting actions. Similarly, intra-actions with and between documentation types demonstrate actions that drift. The rainbow spaghetti tweets illustrate this, (figure 6) both creating a status for playful pedagogies, while resisting more formal approaches (#readytowrite). Furthermore, this reaffirms the

view that ECE is a place where multi- documentation practices are the norm (Alasuutari *et al.* 2014), whilst also demonstrating the complex navigations made in balancing dualist tensions within assessment agendas that Basford and Bath (2014) posit as a sort of game.

The implications of the creating and resisting intra-actions of documentation point to how and why intra-actions occur. How the intra-actions transpire within documentation practices are bound with spatialities and constructions of time, encapsulated in Barad's notion of *spacetime mattering* (2007, 2013). How the documentation is placed within classroom and virtual spaces is significant and acts as visual reminders to children and families that create belonging and value. The photographs of children and their key person are placed where families see them each morning (figure 6, 9), and the virtual images and messages sent between Patrice and Isabella's mother through Tapestry (figure 10) value language efforts whilst overlaying some deeply compassionate actions that support a bereaved family. How intra-actions are bound up with constructions of time can be seen in how the bedtime stories (figure 10) documentation act with present and future versions of Isabella. Here, documentation acts as a mechanism for teachers to slow down and contemplate structural influences on learning and then speed up their actions with ethical and moral frames of behaviour, what Lenz Taguchi terms an "ethic of resistance" (2008, p.280). In addition, ethical decision making might be not only resisting but also asserting. In this example, Patrice asserts her professional knowledge for multiple purposes, one of which may be to defend her practice against narrow constructs of policy. Patrice's actions in creating a book of photographs of her own and Isabella's father demonstrate the nuanced obligations and moral actions that teachers create through their documentation practices (figure 10). Barad (2012) argues that *spacetime mattering* is relational in nature "making our obligations visible" (Barad, 2012 cited in Juelsjkaer and Schwennesen, 2012 p.20).

In the same way the findings illuminate the ways in which intra-actions that emerge from documentation bind the material and to the discursive. Barad (2007) asserts that "matter and meaning are not separate elements" (p.3). The research documentation has demonstrated some of the discourses that are intertwined with

documentation. Such discourses are threaded through relations in terms of caring and maternalism (Aslanian, 2015) that foster belonging through notions of what constitute a good learner (Bradbury, 2014). Discourses associated with authority (Warren, 2014) and accountability (Basford and Bath, 2014) shape documentation by asserting teachers' identity and status. Likewise, discourses of disadvantage (McNamara and McNicholl, 2016) are challenged on a larger scale through documentation practices, where assumptions made about certain socio-economic communities are rejected, shifting from disadvantage to discourses of hope (Moss, 2015). This suggests that documentation practices are played out in both public but sometimes private arenas with political, ethical and moral intent that can disrupt dominant discourses (Jones *et al.* 2016).

The following discussion chapter will identify the implications of the findings. Firstly, I intend to consider the conceptual implications of documentation practices within epistemological and ontological frames. Secondly, I consider more practical implications for ECE teachers in how their documentation can be put to work in the actual and virtual spaces of their classroom, encapsulated in the term *spacetime mattering* (Barad, 2007, 2013). Thirdly, I will also analyse the methodological and ethical implications of enacting a diffractive analysis and what further intra-actions have been created with both human and non-human elements.

Lastly, through the discussion I intend to consider the teacher role within a material-discursive frame and consider what potential there is for teachers to create, resist and most importantly transform the narratives and become expert players of the "assessment game" (Basford and Bath, 2014 p.119).



# Chapter 5 Discussion

## 5.1. Introduction to the discussion chapter

The discussion chapter steps above the collected data and discusses the implications related to the research question: *What forms of material-discursive intra-actions arise from pedagogical documentation?* This will include methodological and ethical inferences. As I have studied documentation practices for Michelle, Patrice and Margaret (respectively the nursery, reception and head teacher), I have put to work a research design through a diffractive analysis. I intend to argue that this has brought to light some original knowledge about methodological approaches to the field of ECE posthuman and new materialist research practices.

It is important to consider that the intra-actions generated through this particular research assemblage of human-material encounters come from the pedagogical leadership of a teacher with long experience, fed by rich professional development that has generated a credibility in her decision making and the respect of her colleagues through membership of the school senior leadership. An unusual confluence of influences maybe present here and unrecognizable to other teachers operating within the confinement of ECE policy contexts. Resisting accountability discourses would be a risky endeavour to many teachers, and Roberts-Holmes and Bradbury (2016) assert that the pressure of generating attainment data can narrow pedagogy. Conversely, it could be argued that accountability agendas can potentially restrict assessment practices and in addition deny the kinds of ethical and relational encounters that have been documented through the findings. Basford and Wood (2018) posit that when assessment is constructed as a relational and ethical practice it holds the potential to deconstruct dominant discourses. Such discourses at work within the field paint a picture of teachers of young children making sense of complex accountability and economic discourses that will highly influence their pedagogical decision-making. However, other influential discourses are also at work in ECE pedagogies, such as those associated with caring (Aslanian, 2015) and authority

(Warren, 2014) as teachers forge relationships with young children that require subtle forms of emotional attunement.

Therefore, the following discussion chapter does not attempt to generalize to the wider ECE teacher population, but rather ponders the agentic nature of documentation practices in the *spacetime mattering* (Barad, 2007, 2013) entangled in-between the case study teachers, children and families. Accordingly, the following discussion is meant to open up a line of enquiry and a curiosity about a social-material view of documentation, as methodologies such as new materialism can open up:

It is curiosity about what might be possible that enables us to imagine and create a different, more ethical existence. We made the existence we have—it is not “natural.” We can think and make another, and that is the task of ethical experimentation. (St. Pierre, *et al.* 2016 p.102)

## **5.2. Implications for practice**

The findings outlined in the previous chapter illuminate how intra-actions have two broad actions, resistance and creation. Potentially these actions have transformative potentialities for teachers such as Michelle to assert their pedagogical practice in acting against dominant discourses, aligning with a construction of documentation as performative and agential (Lenz Taguchi, 2010).

### **5.2.1. Resisting intra-actions**

Intra-actions have emerged from the documentation that acts to resist professional challenge from inside and outside the school. The use of documentation in the classroom space and artwork in the hallway can be framed as a rejection of disadvantage discourses, plugging the school into international events in efforts related to regeneration and aspiration.

Documentation in this resisting intra-action is part of an assemblage that sparks deconstructive talk (Lenz Taguchi, 2008), and that deconstructive talk acts as a way to challenge dominant ideas. The findings concur with previous research (Kocher and Pacini-Ketchabaw, 2011) that suggests that documentation practices can act as a form of resistance to how assumptions are made about children, by displacing and

transforming thinking through the process of reviewing documentation. Resistance in this construction matters because it is a productive force that has substance, force and direction. Significantly, resistance is not practised for its own sake, but as a means of teachers co-constructing and putting their own professional knowledge to use within documentation practices.

Practically, the implications of using documentation practices as a form of resistance for teachers are double-edged. On the one hand, it is empowering for teachers to enact their pedagogical leadership through their documentation practices. Michelle does this in order to offset scrutiny from her school colleagues and also generate data that tracks developmental milestones. In doing so, this enables a resistance to the discourses associated with regulatory bodies such as Ofsted, whilst at the same time developing practices that are aligned with her commitment to playful pedagogies. This suggests that the making and positioning of documentation can have influence within the actual and virtual spaces of the classroom. Subsequently, the documentation enables Michelle to act as an advocate for children and families, freeing her up to enact practices that align with her pedagogical choices and demonstrate expert playing of the “assessment game” (Basford and Bath, 2014 p.119).

### **5.2.2. Creating intra-actions**

Secondly, from the perspective of teacher intra-actions have emerged that create belonging and value. As the data were gathered from intraviews with teachers they reflect the teachers’ own perspectives on what the documentation does in the classroom spaces for children and their families. It is Michelle’s view that the learning story of Tyler’s water play acts to reassure him of his place in the classroom (figure 5). It follows that this example shows how teachers can physically position documentation, such as learning stories, in places of significance for children, and from their perspective it can act to create a sense of belonging:

*‘So I blew it up and put it in the water area so the next day when he came in, he looked at it and he was like ‘It’s me’ ‘it’s’ me’ and I was like ‘yeah do you want that thing you were doing yesterday you remember how lovely it was?’ And we talked about it again, so I think for him it was It was all about this place is- ohhh this place is all about me.’ (Michelle)*

Another example of documentation acting as a creating intra-action is Michelle's blog entries that were triggered by her revelation that she had begun to consider her classroom as a whole documentation of learning. The observations, learning stories, photographs, mark-making and paintings alongside adult written signs, notices and narrations (figure 5) are acting as a lively and whole documentation assemblage collectively acting within the space and time of the classroom that from Michelle's view create senses of belonging:

*'I want the space to feel like it belongs to my children so it grows and develops as they do'*

*'they reflect the children and families so they see themselves replicated and the classroom as belonging to them'* (Michelle)

These two examples intra-act with both human and non-human elements to create specific meanings to children and families in terms of ideas of belonging to that teacher, classroom and school community. In both these examples, the two documentation types are publicly positioned in particular classroom spaces and times and reveal Michelle's intention for them to act in specific ways to create senses of belonging. Hence, the findings confer with previous research that pedagogical documentation supports working cultures that encourage new ideas and meanings (Kummen, 2014; Lenz Taguchi, 2010; Pacini-Ketchabaw *et al.* 2015).

The practical implication is that physically positioning documentation in specific classroom spaces and at specific times can suggest actions that gesture towards creating notions associated with belonging. In the example of Tyler, it is suggested that belonging is created through the acknowledgment of the documentation within the classroom space, as Michelle recalls his excited comment *'it's me, it's me'* as he sees it the morning after the observation of him took place. Michelle puts the documentation to work on her behalf to confer and enhance the status of learner to the child and valorises their membership of the school community, confirmed by Michelle in her commentary about Tyler's recalled reaction to her positioning of the documentation *'ohhh this place is all about me'*. From Michelle's positioning it is suggested that documentation plays a part in that enactment and thus is interpreted to be acting as an agentic matter. Barad (2013) would argue that the enactment of

agency emerges through the responses between matter and humans. In the findings, the matter is the documentation itself occupying both physical and virtual spaces, where intra-actions emerge from the teachers' perspectives that create human senses of belonging and value. As such, agentic readings of documentation that shift the gaze of teachers (Kummen, 2014) to see the practice as a means of fostering senses of belonging and value have positioned by findings as an original insight and contribution to knowledge about the application of new materialist theories into the everyday world of classroom practices.

Practically, documentation practices can go some way on behalf of teachers in creating a climate of value that fosters senses of belonging for young children and their families. The term and idea of *belonging* acts as a repeated thread throughout the findings, where documentation practices weave this pivotal notion into daily life. Likewise, this idea of belonging relates to Latour's (2004) writing on shifting from "matters of fact to matters of concern" (p.225). The matters that concern the case study teachers are to create a place where children and families can belong. This is given a high value at each phase of the data collection, oft repeated by all three participants and suggesting a significant piece of glow data (MacLure, 2010). I theorise that these senses of belonging are created through documentation practices that behave agentially, enfolding political acts towards local communities that bring them into the world of schooling and value their place within that world. I argue that documentation practices are entangled within the intra-actions that are intended to create belonging and in addition, the material of documentation itself constitutes senses of belonging. The findings concur with previous research that has suggested that reading documentation through a material-discursive frame causes teachers to "shift the gaze" (Kummen, 2014 p. 808).

The findings have a surface similarity with research such as Reynolds and Duff (2016) who posit that documentation can foster conversations and connections between families, children and teachers. I diverge from Reynolds and Duff (2016) in how I conceptualise those connections, as I see them as more than interpersonal, and align more closely with a performative enactment of belonging that takes into account the roles of non-human elements. In my theorization belonging is enfolded through

documentation and constantly being shaped by prevailing discourses and entangled in the real and virtual school spaces. Within this entanglement, the documentation is intra-acting with discourses associated with English policy contexts of ECE, and emerges from intra-actions between the spaces, time and place of the school and beyond into children's homes and communities. Senses of belongings do not emerge from the domain of individuals but from a "collective and distributed phenomenon that engages multiple performative agents that are collectively responsible" (Lenz Taguchi and Palmer, 2013 p.684).

The findings also diverge from previous research that suggests that documentation practices can simply retell rather than create new knowledge (Olsson, 2009) or that documentation encourages a complexification of learning (Elfström Pettersson, 2013; Pacini-Ketchabaw *et al.* 2015). I would argue that new knowledge is created in the case study school, but that new knowledge leaks from the professional domain of a teacher's pedagogical practice to create more abstract and ambitious notions of belonging, value and status for families and underscores how teachers resist but also assert their professional knowledge. In the created documentation, the language of the statutory curriculum in terms of achievement of developmental milestones seems to be present but operates in the background, in this way teachers are resisting the "magnetic pull" of observing children as a form of measurement against developmental norms (BASFORD and Bath, 2014 p.353). Instead, what is foregrounded are children's play-based social experiences and their place and value in the school community. Such knowledge seems to clarify rather than complexify, to be redacting created knowledge to what is deemed contextually essential, culturally valued and locally constituted and created. A created knowledge of belonging is dispersed, shared and acts between teachers, children and families through the agency of the documentation. What seems pertinent in the findings is that the creation of belonging is a form of knowledge and a way of knowing that is equally valued by teachers, children and families and that is front and centre, echoing a view of assessment as:

a collaborative process, in which children's learning and development is documented as an ongoing learning journey that is reflective of the culture and practice of the community the setting serves. (BASFORD and Bath, 2014 p.120).

What is suggested from Michelle's perspective is that documentation can behave agentially to nurture belonging and value and as a result has powerful practical implications. As such, documentation practices can do significant work to root children and families into the place of school and provide a foundation for their future selves as competent learners:

Existence is not an individual affair. Individuals do not preexist their interactions; rather, individuals emerge through and as part of their entangled intra-relating. (Barad, 2007 p.ix)

### **5.2.3. Transforming intra-actions**

Thirdly, intra-actions have emerged that act with transformative potentialities. This is a bold claim, and I argue that the transformation occurs through confluences of creating and resisting intra-actions, where documentation seems to shift the gaze (Kummen, 2014).

An example of how documentation can transform notions such as status is seen in the floorbook example of KC and Ethan (figure 5). Documentation acts here within an entangled assemblage of intra-actions between human and non-human elements that changes how children are viewed and reassigns status. It is doing more than resistance or creation, suggesting intra-actions are occurring that are re-constructing but also transforming how learners are assigned status. The reassignment of status seems to occur at an intersection between human and non-human elements as a small group of children talk to Michelle about animals and food with small props, all sitting around a floorbook, where Michelle actively documents their ideas. Although it is not possible to say that the documentation is solely responsible for shifting the status, the making and sharing of the documentation seem to intensify the allocation of status. In the interaction, KC intervenes when Ethan hesitates and supports his peer with his own knowledge. There are multiple embodied elements at work in this example that include the excited realization that KC had knowledge that Ethan did not have and Michelle's realization that something significant had happened that required documenting in the here and now. Also, this was a quickly moving scenario that included the ensuing reaction of teaching staff. In addition, the floorbook documentation being shared as part of the research process all intra-acted to shift the gaze and reassign status of knowledgeable learner from Ethan to KC:

*'Because we had made such a fuss...he was instantly empowered ...He said to Miss Williams 'I helped Ethan' ...you know since then...His speech and language has improved, honestly, he is like a different child. ...he suddenly saw himself as like somebody who could help somebody else' (Michelle).*

Although it is not possible to say that this shift in status would not have happened in the dialogue and interaction of a small group of children and teacher discussing what they know about animals and food, through a socio-material lens the act of documenting seems to act in a performative capacity. Lenz Taguchi (2010) suggests that material objects are “performative agents”, and “they have force and power to transform our thinking and being in a particular space” (p.4). Barad (2007) argues that with notions of interaction there is an assumption that agency precedes and resides within individual elements. Intra-action on the other hand, posits that agency emerges through the entanglement of materials, including human and non-human matter. Additionally, the findings concur with previous research that suggests that documentation practices can challenge teachers’ pre-conceptions about children (Kocher and Pacini-Kerchabaw, 2013; Lenz Taguchi, 2008).

Conversely, the findings diverge from previous literature that suggests that teachers can be unsettled by or resist critiquing their own assumptions (Lenz Taguchi, 2008; Palmer, 2010). The teachers in this study seem to accommodate and even relish such shifts in thinking as part of their daily practice. Dahlberg and Moss’s preface to Lenz Taguchi’s (2010) book comments on how creativity and invention are born from a rejection of prescribed ways of doing things “teachers have to ‘listen’ to the situation and ‘learn to surf it’” (p.xvii). Michelle seems to use documentation practices as part of this ‘surfing’ and this supports her decision-making already established in long experience, professional knowledge and confident pedagogical leadership. As a result, Michelle often constructs documentation practice as a solitary act that is not directly made with colleagues and this troubles a definition of pedagogical documentation as an educational process completed and reflected upon by collaborative efforts between teachers (Carr *et al.* 2016). I intend to return to this concept in the conclusion as I assert that pedagogical documentation needs some redefinition to take into account internally processed, solitary endeavours manifested through social-material educational spaces.



A second example of how resisting and creating intra-actions conflate to transform is where the act of constructing and sharing documentation make intra-actions that breach binary constructs of how the curricula is enacted. One notable example is seen in the rainbow spaghetti tweets (figure 6) that both create a status for playful pedagogies, whilst resisting more formal approaches, illustrated in the hashtag (#readytowrite). The documentation and posting of the tweet in the public domain transforms how a curriculum is positioned as a binary divide between being playful *or* being formal. Lenz Taguchi (2010) considers that binary divides such as “good/bad” can make our thinking overly reductive (p.20). In the case of the rainbow spaghetti tweet, Michelle promotes play and positions formal learning within that play spectrum, disrupting the binary of play being ‘good’ and formal learning being ‘bad’. Rather, the documentation intra-acts in-between the binary divides and positions the learning as *both* playful and formal. In the same way, this reaffirms the view that ECE is a place where multi-documentation practices are the norm (Alasuutari *et al.* 2014). Additionally, this exemplifies the complex navigations that ECE teachers make as they balance documentation with assessment agendas, that Basford and Bath (2014) posit is a sort of game. These findings confer with previous research that aligns pedagogical documentation with transforming practice (Lenz Taguchi, 2010; Rinaldi, 2006; Rintakorpi and Reumano, 2016).

The findings suggest that teachers such as Michelle can transform how they put to work accountability discourses. Rather than accountability being an external force that is something to be resisted, challenged or conformed to, the findings suggest that accountability can transform into an action that is motivated internally by the teacher. Accountability is manifested through a wish to act in creative and ethical ways that align with pedagogical philosophies and are entangled with professional obligations towards children and families. Thus, accountability is internally constructed by Michelle and constituted in her obligation and willingness to accept responsibility for her actions towards children and families. Furthermore, documentation is pivotal and behaving agentially in this transformation of an accountability assemblage.

The practical implication of how intra-actions can have transformative potential point to how and why intra-actions occurred. How the intra-actions occur within documentation practices are bound up with spatialities and constructions of time, encapsulated in Barad's notion of *spacetime mattering* (Barad, 2007, 2013). How the documentation is placed within the classroom and virtual spaces has the capacity to act as visual reminders to children and families that learning efforts are valued. The photographs of children and their key person are placed where families see them each morning in Michelle's classroom (figure 9, 12). The virtual images and messages sent between Patrice and Isabella's mother through Tapestry (figure. 13) value language efforts whilst overlaying some deeply compassionate actions that support a bereaved family. How intra-actions are bound up with constructions of time can be seen in how the bedtime stories (figure. 13) documentation acts with present and future versions of Isabella.

What is apparent in these samples is that documentation acts as a mechanism for teachers to slow down and contemplate structural influences on learning and then speed up their actions with ethical and moral frames of behaviour, what Lenz Taguchi terms an "ethic of resistance" (2008, p.280). Patrice's actions in creating a book of photographs of her own and Isabella's father poignantly demonstrate the nuanced obligations and moral actions that teachers create through their documentation practices (figure. 13). Barad (2012) argues that *spacetime mattering* is relational in nature, "making our obligations visible" (Barad, 2012 cited in Juelsjkaer and Schwennesen, 2012 p.20). Practically, this has implications in terms of how intra-actions that emerge through documentation can act to transform how teachers enact ethics in their positioning towards the families in their care. Moreover, this is another argument to support the finding that accountability discourses are being transformed from something externally reacted to into something that is internally created through *spacetime mattering* (Barad, 2007, 2013) and redirected through ethical positioning towards children and families "[e]ntanglements are relations of obligation." (Barad, 2010 p.265). The ethical nature of *spacetime mattering* is considered later in this chapter as I ponder the ethical implications of my methodological approaches.

#### 5.2.4. Binding intra-actions

The findings elucidate the ways that emerging intra-actions from pedagogical documentation bind the material and the discursive “matter and meaning are not separate elements” (Barad, 2007 p.3). Through this lens, the research documentation illuminates some of the discourses intertwined with pedagogical documentation for example, the discourses of caring and maternalism (Aslanian, 2015) and what constitutes a good learner (Bradbury, 2014). Discourses associated with authority (Warren, 2014) and accountability (Basford and Bath, 2014) shape documentation by asserting teachers’ identity and status. Discourses of disadvantage (McNamara and McNicholl, 2016) are challenged on a larger scale through documentation practices, where assumptions made about certain socio-economic communities are rejected, thereby potentially shifting from disadvantage to discourses of hope (Moss, 2015).

Binding the material of documentation to discourses points to how teachers can position practices that enfold bold and ambitious gestures, such as promoting aspiration and hope, played out with political, ethical and moral intent that can disrupt dominant discourses (Jones *et al.* 2016). However, it can be argued that most of the time what documentation does on this grander scale is implicit rather than explicitly understood in the demanding and frantic pitch of the ECE classroom. Discourses at work from curricula text and assessment regimes will put into play power structures that teachers will find problematic to act back against.

By considering the intra-activity of documentation practices there is much more at play when teachers observe, assess and track children’s learning and that perhaps small local spaces can be found to act back against dominant discourse. When that observation becomes part of a documentation practice, when it is shared and positioned in the time and space of the actual and virtual classroom, it can have transformative potential. Such transformative potentiality can bring a confidence to assessment gameplay (Basford and Bath, 2014) and constitute teachers such as Michelle as expert players. Being an expert player thus involves resistance against challenge from within and without school and also entangles an ethic of care within documentation practice that goes beyond the accountability agenda. What is

significant here is that teachers who act back against the reductive nature of curricula texts take professional risks, and these risks seem a necessary tactic when the “assessment game” (Basford and Bath, 2014 p.119) is at play.

### 5.3. Theoretical implications

Furthermore, the findings demonstrate that documentation practices are entangled in how teachers, families and children are creating and transforming what kinds of knowledge are valued, in particular the value placed on the notion of belonging. Through the posthuman lens of new materialism “practices of knowing and being are not isolable; they are mutually implicated” (Barad, 2007 p.185). To know you belong, you have to feel and experience belonging and the intra-actions that are arising from documentation practices are implicated in notions of belonging in the case study school. Barad coined the term “*ethico-onto-epistem-ology*” an appreciation of the intertwining of ethics, knowing and being” (2007, p.185). Likewise, the findings concur with this notion of intertwining and relate to Lenz Taguchi’s (2010) concept of an intra-active pedagogy, relevant in ECE contexts as learning and knowledge are being created within and in-between the objects, spaces and environments of the school. The insertion of ethics into ways of knowing and being is pertinent to the methodologies and findings. Documentation practices in the classroom and in methodology seem to catch and materialise tacit ethical acts being performed, seen in all the diversity of observations that bind Isabella and Teddy’s family with the teachers, classroom space and time of the school world in a heightened time of crisis (figure 10). Methodologically they appear in the ethical choices that are made as part of data collection, data creation and in the ways that diffractive analysis has been put to work.

The research question is premised on an enquiry into what intra-actions arise from documentation. A further question emerges from this; *what is documentation doing?* In order to answer this, I draw from Lenz Taguchi’s (2010) theory that documentation acts within an intra-active pedagogy as an apparatus of knowledge. This position is

developed from Barad's (2007) concept of ethico-onto-epistemology that Lenz Taguchi transposes to educational contexts: "we cannot separate the learner from what is learned in an intra-active pedagogy when we plan, perform or evaluate our learning activities." (2010 p.39). Theoretically speaking, I argue that my findings illustrate some exemplification of how ethical actions are made tacit through the materialization of documentation (Barad, 2007). Geerts (2016) considers that Barad's ideas around entanglement (2007) illustrate how ethics is put to work, a kind of indebtedness and obligation that is not only working between humans but also constituted in relation to the material world that makes up the environment. I argue that the findings demonstrate nuanced and rich examples of documentation acting as ethical debts and obligations to children and families, whilst calling to teachers' own pedagogical philosophies and the professional knowledge that determines practice choices. The documentation is part of the fabric and practice of the case study school, sited in the everyday real spaces of classroom practice in floorbooks depicting children's reasoning about animals and their food (figure 5), learning stories stuck above water areas that act as a way to anchor Tyler to the world of school (figure 5) and Comic-Con inspired artwork occupying the hallway that reject disadvantage and unfold aspirational messages (figure 9). Documentation practices are acting in the virtual spaces of Tapestry to attend to Eve's social use of verbal language as she names her friends (figure 6) and tweets moving between children, families and also the wider world beyond localized contexts through Twitter, nurturing a status for the school on a national stage (figure 8).

Some of the documentation practices move beyond the world of indebtedness and obligations to children and families and seem to act within discourses of the status of play within contemporary policy contexts of ECE curricula. How teachers assert their beliefs through the documentation is encapsulated in Michelle's comments about her use of Tapestry in creating imaginary children to ward off professional scrutiny: *'You got to play the game haven't you...Got to find a way to be the right thing and do the right thing haven't you.'* What is reworked here is how the accountability agenda is taken hold of and reconstituted by an expert player of the "assessment game" (Basford and Bath, 2014 p.119) demonstrating a responsibility to the profession and status of the ECE sector itself. The notion of responsibility to the status of the

profession is also enfolded into Michelle's advocacy of playful pedagogy through her documentation *'I'll show you what we do about phonics'* and her gleeful celebration of children's capacities in the assignation of twitter hashtags (#creative, #unique, #individual) and pleasure in playing the game *'I thought I was just so clever. I was so pleased with myself'*. Here, Michelle is taking a professional satisfaction in creating spaces for doing things differently and putting her agency to work to create cracks in the dominant discourses.

Amongst this assemblage is also my own embodied role in seeking documentation samples, through the goosebumps and shared laughter of the intraviews as we sought each other's affirmation *'Boom boom boom'* (Jo) *'Kapow'* (Michelle), *'Is that alright, is that what you wanted?'* (Michelle) *It's bloody awesome'* (Jo). What has been propelled is the momentum of my own lively and playful relationship with research processes that in turn has enabled aspects of tacit knowledge to come to light.

Thus, documentation practices are enfolded with accountability discourses, but the accountability discourse is reconstituted to encapsulate a responsibility towards children and their families. Hence the answer to the question *'what is documentation doing?'* can be found in these small, yet bold ethical gestures. In addition, the responsibility encompasses the wider profession of the ECE teacher acting ethically to advocate the potentialities of playful pedagogies and at the same time provides some exemplification of how ethical acts are deeply inter-related to the learner and what is learnt, encapsulated in Barad's term ethico-onto-epistemology (2007).

## **5.3. Methodological and ethical implications**

### **5.3.1. Methodological implications**

In this section I map out what methodological contribution I am making to the field and the implications for future research. The development of a methodological frame

has entangled a related group of theories that have been described as new materialisms (Coole and Frost, 2010; Fox and Alldred, 2017). Lenz Taguchi (2010) has been particularly influential in the choice of this approach as she was one of the first ECE researchers to apply this thinking to pedagogical documentation. Drawing on the work of Barad (2007) and her physics philosophy, Lenz Taguchi (2010) posits that pedagogical documentation is a “material discursive apparatus” and additionally, “an active agent in generating discursive knowledge” (p.63). The enquiry builds from previous ECE research that has taken similar methodological frames to study documentation as part of social-material perspectives (Blaise *et al.*, 2017; Davies, 2014; De Freitas and Palmer, 2016; Elfström Pettersson, 2013, 2015, 2017, 2018; Hodgins 2012; Hodgins *et al.* 2017; Hultman and Lenz Taguchi, 2010; Kuby, 2017; Kuby *et al.* 2015; Kummen, 2014; Lenz Taguchi, 2010; Merewether, 2018; Olsson, 2012, Pacini-Ketchabaw *et al.* 2015; Palmer, 2010; Sellers, 2010).

On reflection, the methodological process of putting to work new materialist methodologies has been both troublesome and energising. Taylor posits that inventing new posthuman practices runs the risk of difficulty and contention for researchers (2016, p. 9). Consequently, the invention of a methodology has enabled a consideration of what intra-actions arise between documentation and children, teachers, families and dimensions of space and time within the case study school. As a result, I have been able to see what happens in-between these elements. The in-between consideration of discourse and material has pointed to what documentation is *doing*, rather than what it *means*. The methodological approach on what documentation is *doing* enables my own enquiry to have an original identity in a saturated research field that uses more traditional methodologies to explore concepts such as the dialogic capacities of pedagogical documentation to aid teachers professional learning and practice (Alasuutari *et al.* 2014; Dahlberg *et al.* 2013; Emilson and Pramling Samuelsson, 2014; Picchio *et al.* 2014) or the facility of pedagogical documentation to visualize learning processes and as a conduit for listening to young children’s voices (Reggio Children and Project Zero, 2001; Schiller and Einarsdottir, 2009; Pacini-Ketchabaw *et al.* 2015; Wien, 2011). The findings take a flattened ontology and this has facilitated attention to the agentic qualities of pedagogical documentation in intra-action, by putting to work methods that can

investigate “a concern with what matter does, not what it is” (Fox and Alldred 2017, p.153).

I have found that documentation is acting to create, resist and transform pedagogical practices to reframe accountability and assessment agendas whilst enacting political acts and ethical obligations to children, families and communities within a concept of *spacetime mattering* (Barad, 2007, 2013; Juelskær and Schwennesen 2012). Such framing has widened my gaze and has taken place through the methodological inventions. I have enacted these inventions through returning and re-reading theories and in doing so, attended to the data encounters to find something different to think with (St. Pierre *et al.* 2016, p.106). Posthuman methodologies move away from known approaches and offer little in the way of a roadmap, but this in turn can encourage imaginative and inventive methods (Taylor, 2016). From a position of feeling stalled in the navigation of methodologies, the stalling became productive (Fairchild, 2017; Holbrook and Pourchier, 2012 p. 42) and encouraged invention. There are two examples of this kind of methodological invention in the study.

In the first instance, I created visual mappings of how data evolved and related (figures 2-4) that enabled a consideration of how different kinds of documentation and data intra-acted with each other in the research process, focusing on the *in-between* encounters (Olsson, 2009). I termed this process ‘mapping’, but it has more in common with diagramming that Springgay and Zawilska (2015) describe in their arts education enquiries as a:

critical and materialist research-creation to explore the concept of diagramming as self-organized enfoldings that do not describe or instruct experience, rather they are expressed as an open process that is emergent, vital, and abstract. (p.136)

Mapping the relationships between data has some similarities with recent ECE research (Elfström Pettersson, 2013, 2015 2017; Sellers, 2010, 2013, 2015). Elfström Pettersson (2015) used diagrams to show the intra-actions between adults, children and non-human elements as they make and revisit documentation. Similarly, Sellers (2010, 2015) makes diagrams that track the movements and relationships between different groups of children in their themes of imaginative outdoor play. My research



builds on these examples, but diverges from them as I have made maps (or diagrams) of the connections *with* and *between* different forms of documentation practice as part of the methodological processes. Methodological inventions provide an example of navigating the emerging field of new materialist educational methods by reimagining maps or diagrams (De Freitas, 2012) as ways to create and spark enquiry. Subsequently, this has introduced original methodological knowledge to the field of new materialist thinking with pedagogical documentation.

Secondly, from this mapping of connections *with* and *between* different forms of classroom documentation emerged new sets of six self-created visualisations, which I termed research documentation (figures 5-10). An imagining of diffractive analysis (Barad, 2007; Haraway, 1997) enabled me to read data through each other and through selected theoretical fragments. Playing and inventing with data is an important component in recent applications of new materialist research methods (St Pierre, 2016). Methodologically, the research process has created original knowledge about how enacting a diffractive analysis can initiate vibrant kinds of data and exemplified at two points. One within how I mapped the actions of data events and another example can be seen in how I used documentation as a research practice to study documentation as a classroom practice.

The research process has developed from relational materialist methodologies (Hultman and Lenz Taguchi, 2010; Lenz Taguchi, 2010) and the more recent ECE Deleuzian inspired methodological experiments such as 'rhizo-mapping' (Sellers, 2010, (p.566) and collaborative 'cartography mapping' (Lenz Taguchi, 2016 p.39). The methodological implications point to the contribution that post-qualitative research can have in the rejection of predictable and prescribed approaches and instead embrace more "fluid methodological spaces" Koro-Ljungberg (2016, p.79) and "living methodologies" (Fairchild, 2016 p.16). Pedagogical documentation has been recognized as a research methodology (Hodgins, 2012) and applied to ECE concepts of quality (Elfström Pettersson, 2017), curriculum (Sellers, 2010), race (Kummen, 2014), outdoor environments (Merewether, 2018) and curricula subjects such as literacy and mathematics (Harwood and Collier, 2017; Kuby *et al.* 2015; Olsson, 2012; Palmer, 2010). The thesis diverges from and builds upon these recent applications by

researching documentation practice *as* a central focus, *through* documentation as a method. As such, the methodological inventions are an example of experimental “reconfiguring our concept–matter mixture” (De Freitas, 2017 p.741) and methodological potentialities as a “lively, relational, knowing-doing methodology” (Hodgins *et al.* 2017 p.203). Such framing enables the enquiry to stand up as an original application of emerging methodologies in a well-populated research field such as pedagogical documentation.

### **5.3.2. Ethical implications**

Enacting posthuman research practice has meant concerns with ethical conduct has had to be reconfigured beyond abiding by national (BERA, 2018) and institutional processes, as who matters and what counts as data requires a repeated ethical deliberation (Taylor, 2016 p.5). As posthuman and new materialist research attends to the human in relation to the non-human world, I have found that ethical obligations have needed to be rethought at each turn “because each and every encounter keep the matters of ethics open” (Taylor, 2016 p.17).

An example of this ethical reconfiguring was found in continually defining what counted as data and being attentive to the actions and behaviour of the data. Enacting a diffractive analysis meant taking account of how the emotional, conceptual and the visual “affect each other and interfere” (Davies, 2014 p.734). Choosing glow data (MacLure, 2010) brought tensions in knowing which data to attend to and required being alert to the relationships between data. Moreover, this brought fresh and reoccurring ethical conundrums. There were unexpected actions that appeared in the mapping of how the on-line blog behaved (figure 4). Such mappings revealed methods intra-acting with other that both created and stalled data events. The stalling of data events was both intriguing and irksome, uncovered in the tensions with posting thoughts and findings between Michelle and myself. At times this led to intense activity and on some occasions also stalled data creation. The lack of a response meant that threads ended and hung in the space of the blog, creating voids and dead-ends that couldn’t be predicted or planned for. Stalling and voiding in the

data caused me pause. MacLure (2006) described this like a bone in the throat, an irritation that could be productive if only it would be consented to. Deadends in the data could also be read as a kind of data silence that makes analysis troublesome (Koro-Ljungberg and MacLure, 2013). Decisions about what matters and counts as data can be understood as ethical choices (Taylor, 2016) and could represent missed opportunities for productiveness, and be recalibrated as kinds of “sticky data” that stubbornly resist categorization (MacRae *et al.* 2017 p.1). Attending to sticky data could have energised a different kind of knowledge and one that I sometimes embraced or avoided, and in retrospect I can frame as part of the ethical complexities of choosing what matters in posthuman methodologies (Taylor, 2016).

Ethical implications are significant in how researchers decide who matters and what counts as data (Taylor, 2016). I have learnt that ethics means much more than processes and procedures and involves kinds of embodied responses that are related to sensitivities towards the “semiotic-material” of things (Haraway, 1988 p.585). What this means is that posthuman studies of pedagogical documentation can tell different ethical stories that attend to documentation’s materiality and agency and how the documentation entangles the human and non-human elements in places such as schools.

Pedagogical documentation has been already positioned as a kind of moral and ethical practice (Basford and Bath, 2014; Blaise *et al.* 2017; Palmer, 2016; Pacini-Ketchabaw *et al.* 2015). Putting to work intraviews in place of interviews is an example of ethical decision making in my study, taking seriously embodied, sensory and emplaced notions (Kuntz and Presnell, 2012; Pink, 2009) seen in the attention to researcher goosebumps and how the staplegun sound configured a lively sense of the school space as constructed and experienced. Taylor (2016) would term this as sensory knowing, a kind of embodied diffractive musing (p.203). The invented research methodology can be framed as a ‘lively story’ (Blaise, *et al.* 2017) aligning with the position that the Canadian variant of pedagogical narration (Pacini-Ketchabaw *et al.* 2015) takes in capturing multiplicity and multi-vocality (Hodgins *et al.* 2017 p.203). Additionally, such concepts align with Lenz Taguchi’s (2010) view that

pedagogical documentation is “alive and from which we can produce a multiplicity of differentiated knowledge from a specific event” (p.67).

Ethical actions are embodied in the intertwining relationship of researchers and their subjects and objects of study (Bennett, 2016). Such intertwining is exemplified in the data by how I was forced to re-conceptualise what constituted pedagogical documentation from Michelle’s comment in the blog. I recall my audible gasp and spike in heart rate as I read this blog entry, sensing its significance immediately and later feeling the shift in direction and scope of what I conceived as data as an irrepressible pulling:

*‘Maybe I’m getting carried away Jo - and tell me to hush if so!  
But the more I think about your research and consider my practice the more I think that I view my entire room is one huge documentation of learning - if its ok with you I’m going to take some photos of the provision to show you what I mean?’ (Michelle)*

Michelle acknowledges the power of her conceptual shift in the phrase ‘*tell me to hush*’, giving me permission to accept or reject this as productive data, opening up the possibility of responsiveness that Barad (2010) describes as needing to be kept at the forefront of any new empiricism (De Freitas, 2017 p.744).

Embodied within the intertwined relationship of researchers and their subjects and objects of study are the ethical choices that are made in whose stories are told. I am conscious the research question and chosen methods have told predominantly foregrounded teacher stories of how documentation is intra-acted with. As a result of this, children such as Tyler, Eve, Isabella, Ethan, Teddy and KC might be considered as objectified and distant figures. On the one hand, this distancing might suggest that I am further contributing towards an argument that documentation can marginalize, patronize, disenfranchise, and support a culture of surveillance of children (Bath, 2012; Blaiklock, 2010; Matusov *et al.* 2016; Sparrman and Lindgren, 2010). On the other hand, my intention to flatten the ontology through new materialist lens to consider the agency and actions of documentation between the intra-actions of humans and non-human elements within ECE has shifted the gaze to what occurs in the liminal spaces and has brought fresh insights into what kinds of intra-action

emerge. Glimpses of some of the children's relationships with documentation can be identified in those emerging intra-actions, seen in quiet voice of Isabella's shy video message through Tapestry to Patrice (figure 10) and Eve recounting her friend's name using the 'key person' wall as prompts that bring her into a social realm that she had previously struggled to enter (figure 6). It could be said these glimpses of children intra-acting with documentation has gone some way to illuminate the position they are afforded within the case study school. Furthermore, these glimpses need to be accounted for within the assemblage of humans and non-humans in relation.

However, children's stories are still filtered through adult lenses, and by planning to only engage with teachers as research participants this can be seen as a limitation of the study. Moreover, new ways of research can offer new possibilities to consider ethical engagement but bring new ethical dilemmas into foci, in this case foregrounding the matter of the agency of the documentation may well have pushed children's intra-actions into the background. Posthuman theorists such as Bennett (2010) question the division between subjects and objects as well as the human assumption of higher status over inanimate things. This means that viewing the children, teachers, documentation and materials of the classroom as part of a shared materiality can be positioned as an inherently ethical position as it requires openness to the concept of the vitality of the non-human elements.

There is one sample of data that remains ethically sensitive even after my rationale about what counts as data and at the stage of the final write up. Isabella, Teddy and Patrice's bereavements are bound up into the intra-actions with their documentation and one I have questioned about having a place in the final thesis. It is a rich and moving story to tell, but has brought further ethical questions about whether it should be in the public or private domain. Chesworth's (2018) recent research describes the uncertainties that new materialist methodologies open up, and this small yet profound fragment of data is one that stays with me. I still find its inclusion something hard to rationalise, probing my reasons for including this story in a public domain even after ethical processes have been accounted for. It illustrates the bounded relationships of researchers and their subjects and objects of study (Bennett, 2016). Yet it remains an ethical insecurity about whether or not it would be

best to let that story stay where it is, intimately intra-acting between child, family and teacher within the private world of the documentation.

Yet, ethical shifts to accommodate the intra-actions between human and non-human elements demonstrate the vitality and insecurity of being responsive and open to reconfiguring what counts as data. As such, these movements illustrate some of the micro and macro ethics at work. My own research contribution is an example of how putting to work new materialist research practices in studies of pedagogical documentation can entangle ethics within each step turn. Such ideas contribute to the call from Dahlberg and Moss (2006) to make the field of ECE a place of ethical practice and an inventive way for researching posthuman ethics in the micro-decisions that are involved with what and who counts *or doesn't count* as data (Kuby, 2017).

## 5.4. Summary of discussion

The discussion chapter has considered the practical, conceptual, methodological and ethical discussion points that have arisen from the research question; *What forms of material-discursive intra-actions arise from documentation practices?* I have also addressed the implications of these discussion points both practically and conceptually to see how the intra-actions can trouble pertinent discourses within ECE that are entangled within documentation practices. The material-discursive nature of documentation practices has plugged into teacher-child relationships (Aslanian, 2015; Warren, 2014) and how learning is conceptualized (Bradbury, 2014). Additionally, through a socio-material lens, documentation practices positioned within classroom spaces can trouble discourses of disadvantage (McNamara and McNicholl, 2016) and engage with discourses of hope (Moss, 2015).

Methodologically I have outlined the research contributions in terms of the mapping of data events and the enactment of a diffractive analysis. What have been opened up through these processes are the liminal spaces that discourses and materials occupy. In turn, this has enabled a consideration of what documentation is *doing*,

rather than what documentation *means*. Ethically, new dilemmas have mushroomed as I have shifted my gaze to non-human and human intra-actions, skirting the risk of marginalizing children's stories whilst pontificating what matters and counts as data, at the same time as taking seriously the embodied and sensory research assemblage. Still, there are ethical tensions remaining even after research has been completed exemplifying the uncertainties involved in new materialist approaches (Chesworth, 2018).

Taking an agentic and performative view of documentation has entangled classroom spatialities and constructions of time into the assemblage, and connects to Barad's notion of *spacetime mattering* (2007, 2013). Larger concepts such as how the matter of documentation intra-acts with classroom spaces through time will be further discussed in the conclusion, along with what implications this has for current definitions of pedagogical documentation that I assert require some extension. Consequently, the following conclusion chapter will further explore the contributions to knowledge, future research directions and also outline my own learning.

# Chapter 6 Conclusion

## 6.1. Introduction to the conclusion

This thesis investigated the forms of intra-action that arose from documentation practices. The investigation took place in one school and took the form of a case study with three teachers (one of whom was the main participant) and put to work new materialist theoretical approaches to investigate the performative and agential nature of documentation. Through a diffractive analysis, I found that the intra-actions embodied two main resisting and creating movements that in turn produced spaces for teachers to work with and against discourses.

The resisting intra-actions nurtured pedagogies that encompassed the expert playing of assessment practices. Furthermore, a practice space was generated for teachers to disrupt deficit discourses of disadvantage and assert hopeful messages. Where materiality had the potential to be aligned with raising aspiration actions worked against professional challenge from inside and outside the school. In addition, the creating intra-actions that arose from documentation worked upon children and families through placing images and narratives derived from observations of playful learning at specific times and places within classroom and familial spaces. As a result, the documentation worked across, between and within spacialities and temporalities where participants explicitly connected this practice with evoking senses of belonging to the school that gave value to children's playful learning. Hence, this practice had implications for children and their families as it promoted a crucial act of being welcomed into the space of the school.

The findings emphasise senses of belonging are a valued knowledge, and this offers a further nuance in understanding what participation looks like in practice (Picchio *et al.* 2014; Rinaldi, 2006) and can also exemplify an important characteristic in nurturing parent-school relationships (Reggio Children and Project Zero, 2011). Crucially, the



findings point to the transformative capacities that arose when creating and resisting intra-actions were bound and conflated with each other. Specifically, the intra-actions appeared to shift the teacher gaze (Kummen, 2014) and this action can be associated with transformative capacities capable of influencing pedagogical work.

Furthermore, the findings provide an example of how spaces can be found to practice ethical pedagogies, that in turn promote a liveable and flourishing space for ECE teachers in a policy climate that can otherwise confine and restrict. Taylor and Ivinson (2013) posit that new materialism can offer new ethical, political and intellectual resources that can operate as a counter-movement to educational policy intensification (p.665) and the conclusion aims to offer some exemplification of such resources. In addition, I aim to problematise how far new materialist conceptualisations of documentation can find a language that speaks to teachers working within contested spaces shaped by intensifying and powerful policyscapes.

In summary, the concluding commentary has three purposes. Firstly, I intend to consider how the findings contribute to a reworked definition of documentation practices within a new materialist frame and through this I address both practical and theoretical implications. By redefining documentation practice, I make my claim to contributing new knowledge within the current field of documentation research. Post-human and new materialist framings are relatively new philosophical movements that have been generally put to work theoretically through research methodologies (Taylor and Hughes, 2016; Weaver and Snaza, 2017). This leads me to consider how far current new materialist theory can or cannot contribute towards a language of practice that is accessible and understandable to teachers. Secondly, I reflect on the methodological limitations of the thesis. For the concluding section, I consider future research directions along with a reflection on my own learning through the thesis journey.

## 6.2. Contribution to knowledge as a reworked definition of documentation practices

I argue that new materialist theorising around documentation practices call for a reviewed definition that captures the agential nature of documentation. In order to do this, figure 11 presents a reviewed definition of documentation practice seen through new materialist theories as a contribution to knowledge.

The redefinition is presented in a question and answer format and consider the what, where, how and why of new materialist readings of documentation practices and what that might mean pedagogically. After the redefinition is presented, I offer a theoretical narrative to demonstrate how the definition is positioned within current research.

In the spirit of methodological invention employed in the data analysis and posthuman theorising (Taylor, 2016), I present a renewed definition of documentation in ECE visualised as a mapping process. To illustrate this, I have employed different colours and symbols to connect the redefinition to existing theory. The rationale for this is to mirror the documentation style I have studied and the documentation I created in order to enact a diffractive analysis.

### 6.2.1. Rationale to support contributions to knowledge

The following narrative presents my contribution to knowledge through a theoretical rationale and offers a definition of documentation through a new materialist theoretical lens. In order to achieve this, the mapping presented in figure 11 has been broken into four sections (figures 12-15) that mirror the question and answer format and inserted into the following text. After each section there follows a theoretical narrative that elucidates how the definition supports or *aligns* with current theory, how the definition *extends* current theory and how the definition presents new ideas to the research field, for this idea I use the term *assert*.

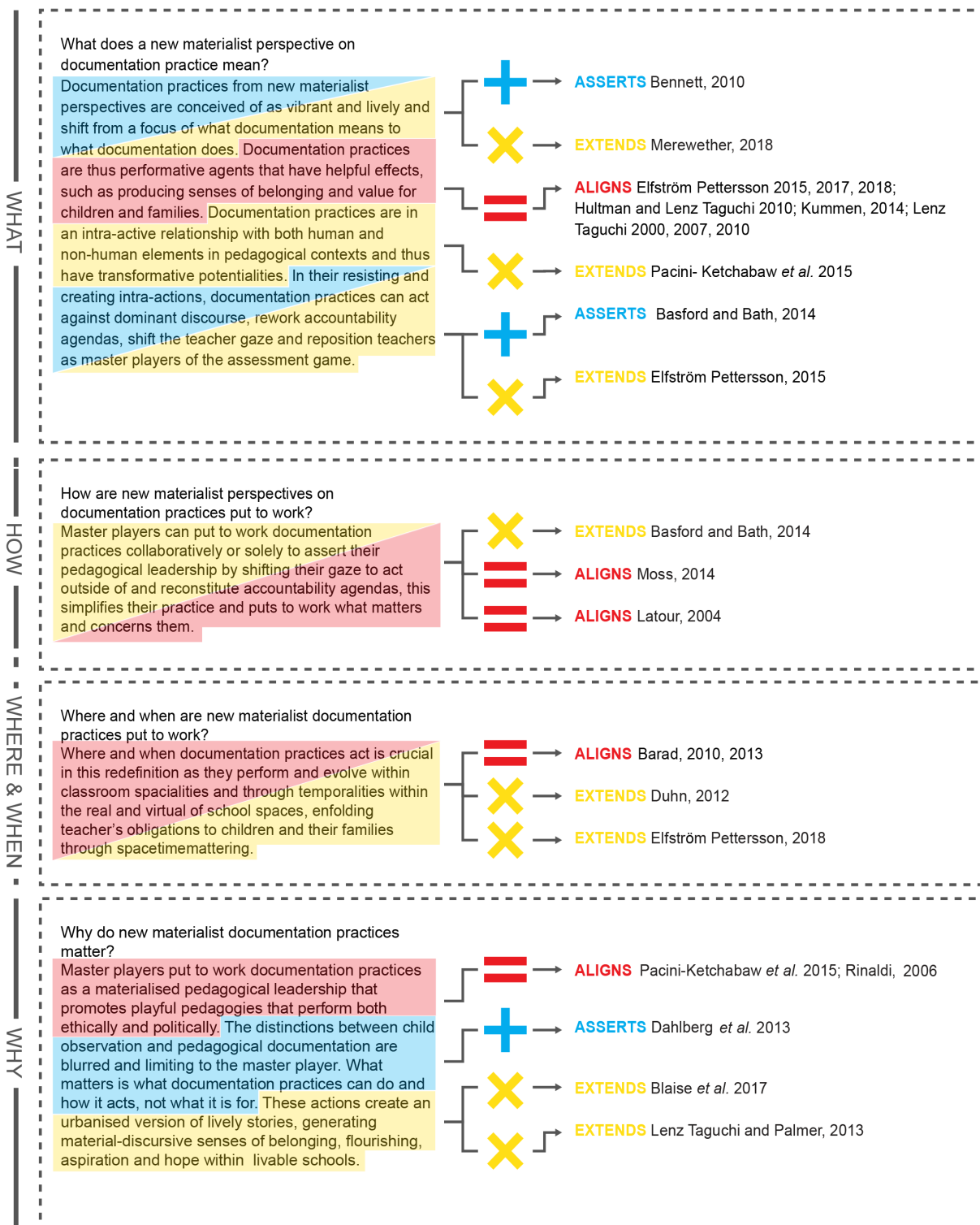


Figure 12 Mapping reworked definition of documentation practices with literature

## 6.2.2. What does a new materialist perspective on documentation practice mean?

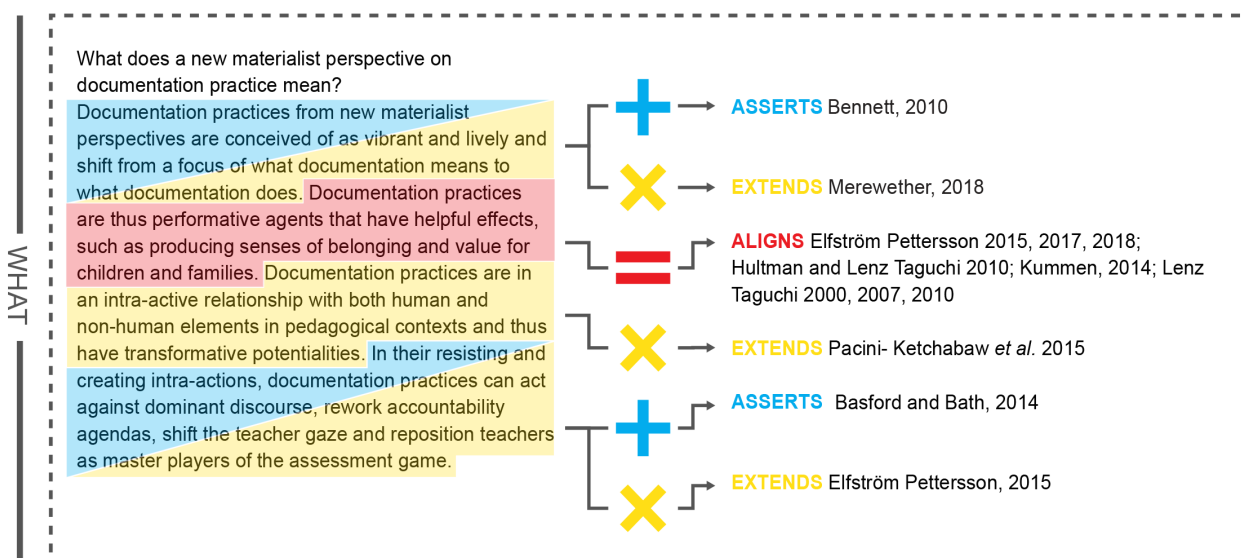


Figure 13 What does a new materialist perspective on documentation mean?

My definition finds that documentation practices are a form of vibrant matter, or a vital materiality (Bennett, 2010) with “trajectories, propensities or tendencies of their own” (p.viii). I have found that documentation practices have a propensity to produce senses of belonging for children and families. This serves as an example in ECE research of how the agency of a material such as documentation can be considered to *produce* helpful affects for humans, which Bennett (2010) theorises as both an ethical and political concern. Thus, I **assert** that this presents new thinking to the field in terms of Bennett’s (2010) ideas, as it demonstrates *what* the vitality of matter produces and *how* it is helpful in the context of ECE. Researchers such as Merewether (2018) connect Bennett’s (2010) concept of vibrant matter to children’s engagement with natural spaces, however I **extend** that connection by considering documentation *itself* as vibrant. In addition, the reworked definition **aligns** with Lenz Taguchi’s (2010) perspective that documentation practices are performative agents within an intra-active pedagogy and through a material-discursive frame can resist dominant discourse.

However, the resistance of discourse operates within a policy landscape with complex sets of drivers at work on ECE teachers. Inevitably, the extent teachers can create

spaces for resistance operates within a navigation of policy. Opening up spaces for disruption through the material-discursive intra-actions of documentation exemplify how “sociopolitical ideologies of their time/space” are at work in the documentation’s intra-actions and are thus influential (Jones *et al.* 2016, p.1153). How the teachers in this research work with and against discourses reveals something of their agency and decision making in action and builds on Jones *et al.* (2016) theorisations by shifting the focus into the domain of an educational context that reveal some powerful dialectic at work.

Additionally, I argue that new materialism can shed light on practices that carve out those spaces for resistance and thus I **align** with researchers who take a performative view of documentation (Hultman and Lenz Taguchi, 2010; Lenz Taguchi, 2007, 2010) and have the potential for transformative capacity (Elfström Pettersson, 2015,2017,2018). The definition also **aligns** with Kummen’s (2014) view that documentation can have transformative capacities through a shifting of the teacher gaze from a concern with documentation as part of the assessment agenda to recognise the powerful actions it performs for children and families within classroom spatialities.

Furthermore, I depart from interpretations in which documentation practices are viewed as a *capturing* of intra-active events (Pacini-Ketchabaw *et al.* 2015). Rather, I **extend** Pacini-Ketchabaw *et al.*’s (2015) view of capturing and instead posit that documentation practices are *creating* intra-active events that ripple out diffractively within, without and beyond the school, particularly in regard to creating senses of belonging. In this frame, the documentation’s actions are creating effects that play with the individual, similar to how an individual can play with material. Hultman and Lenz Taguchi (2010) contends that relational materialist theories open up this way of seeing, as humans are in relation with many other elements and “*non-human forces are equally at play*” (p.525). In the definition, documentation practices are not limited to opening up a dialogue for teachers about “materiality and the sociomaterial intra-action in children’s learning” (Pacini-Ketchabaw *et al.* 2015 p.139). Rather, I **extend** this view to argue that documentation practices can be interpreted *as* materializing

and sociomaterial entities performing beyond the confines of children's learning and curriculum outlines.

In addition, the reworked definition offers new conceptualisations of the influence and subsequent actions resulting from intra-actions that documentation can make that shifts the teacher gaze (Lenz Taguchi, 2010 p.88). Elfström Pettersson (2015) uses similar thinking in her findings that documentation changes teachers focus from the child to preschool practice and also makes the point that matters relating to power relations can be overlooked when multiple elements are considered to be agential. The overlooking of power relations in new materialist research into documentation practices is a significant limitation of this theoretical framework and runs the risk of jeopardising a realistic and pragmatic language of practice emerging for everyday teachers. However, this opens up an opportunity to consider in what ways teachers act back within the polycscape and find spaces to resist and disrupt through their documentation practices. As teachers will have multiple pressures they might want to act against within the assessment agenda, they cannot resist everything. My research illuminates how three teachers went about their documentation and put it to work against discourses and practices that were most pressing to them, and this provides exemplification of how the "assessment game" is expertly played and thus **extends** the research of Basford and Bath (2014 p.119).

Accordingly, I **extend** Elfström Pettersson's (2015) finding by asserting that documentation practices can find a space to resist by shifting the gaze in moving the teachers' focus to a much broader horizon than school practice encompasses. In particular, this is exemplified by how digital enactments of documentation can act outside of the school and perform within and between local communities. The findings reveal how the digital enactments of documentation acted on a national stage that not only raised the status of the school through promoting their playful pedagogies, but also acted against limiting discourses associated with disadvantage. In particular, digital enactments of documentation exemplify how agential and performative frames can illuminate what documentation *does* (rather than what documentation *means*) and present a potential to open up a hopeful practice space for ECE teachers.

### 6.2.3. How are new materialist perspectives on documentation practices put to work?

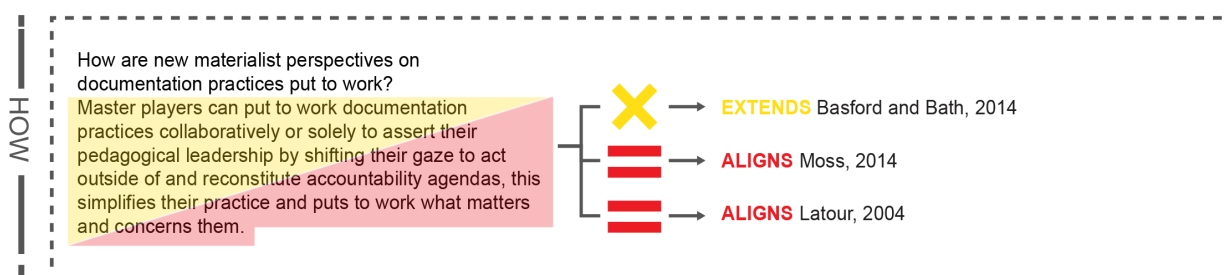


Figure 14 How are new materialist perspectives on documentation practices put to work?

New materialist perspectives on documentation practices are put to work with a conceptualisation of the teacher as an ‘expert player’, building from and **extending** the research of Basford and Bath (2014) who investigated the ways ECE teachers played an “assessment game” (p.119). Assessment games can be expertly played through “theoretical rule bending, breaking and making” (Grieshaber, 2008 p.514 cited in Basford and Bath, 2014 p.128).

Hence, the definition contributes new thinking to the field as it relates documentation practices to a productive and hopeful identity for the ECE teacher, who within the English policy context is often cast as pressurised and helpless within accountability agendas (Basford and Bath, 2014) and thus **aligns** with Moss, (2014) who calls for alternative discourses that emphasise hopeful messages. In addition, the expert player can work collaboratively or equally in sole efforts. Documentation is often characterised to be collaborative in nature as it can provoke dialogue and learning between teachers (Rinaldi, 2006). However, in the findings the participants create documentation mostly as a sole effort, so it follows that the practice can still have value for teachers working in one-form entry schools where a consistent team is not available.

Expert players work within and outside of accountability agendas, reconstituting their role by positioning documentation practices through their pedagogical work with political and ethical intent. Thus, within a material-discursive frame their documentation practices can bring focus to matters of concern, rather than matters

of fact (Latour, 2004 p.225). The findings are an exemplification of documentation as an expression of what concerns teachers and thus **aligns** with Latour's (2004) call to shift the focus.

#### 6.2.4. Where and when are new materialist perspectives on documentation practices put to work?

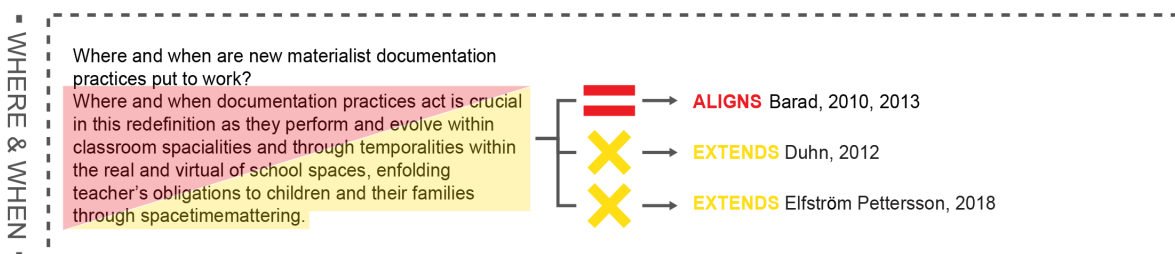


Figure 15 When and where are new materialist perspectives on documentation practices put to work?

Considering how space, time and the matter of documentation are related is distinctive in the findings **aligning** with and contributing to current theorisations around *spacetimemattering* (Barad, 2007, 2013). Additionally, the thesis responds to the call of Duhn (2012) who asks: “What does it mean for early years’ pedagogy to take seriously the agency and vitality of matter that makes up places?” (p.100). *Spacetimemattering* can be understood in ECE documentation practices as relational in nature and adds to the small body of current research that connect these two ideas, such as Elfström Pettersson (2018) who considers how quality is materialized through *spacetimemattering* (Barad, 2007, 2013). Furthermore, the redefinition **extends** Elfström Pettersson’s (2018) findings by suggesting that *spacetimemattering* (Barad, 2007, 2013) intra-acts with documentation practices to materialise senses of belonging for children and families.

Hence, intra-actions can create a valued knowledge of belongingness to the world of schooling. Thus, documentation practices can be thought of as an active mechanism for teachers to create a sense of belonging, as Barad describes it: “making our obligations visible” (cited in Juelsjkaer and Schwennesen 2012 p.20). In addition, I argue that the senses of belonging that are produced through the intra-actions of documentation practices are enfolded through the *spacetimemattering* (Barad, 2007, 2013) of the real and virtual school spaces, which **extends** the work of (Duhn, 2012)



by demonstrating how the concept of *spacetime mattering* can be entangled into the assemblage of place and pedagogy (Duhn, 2012).

### 6.2.5. Why do new materialist perspectives on documentation practices matter?

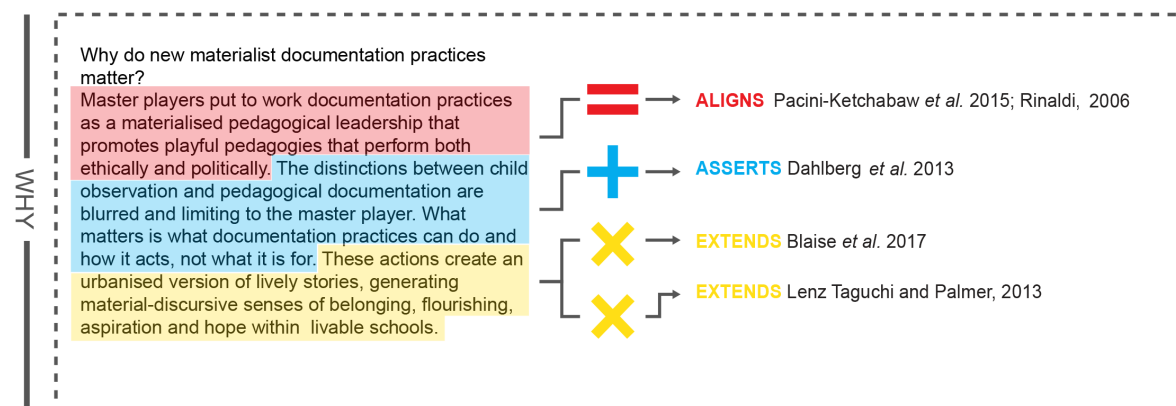


Figure 16 Why do new materialist perspectives on documentation practices matter?

In the redefinition I explore the potential of an urbanised *lively story* (Blaise *et al.* 2017) as a gesture towards what constitutes a liveable school environment (Lenz Taguchi and Palmer, 2013). Liveable environments and liveability are terms more commonly found in geographical and ecological research and are defined as an environment or place that is bearable, easy or worthy to live in (Oxford English Dictionary, 2018). Haraway (2008) considers that it is imperative to attend to our daily, modest relations to the environment we inhabit, being “more worldly” (p.5) with different species, plants and places in efforts to find sustainable and liveable ways of inhabiting a shared world. Haraway’s ideas have inspired the current Common World research collective who explicitly connect the pedagogical significance of place and belonging (Pacini-Ketchabaw *et al.* 2015). In this part of the reworked definition I aim to answer the call of Lenz Taguchi and Palmer (2013), who posit that there are new possibilities for illuminating liveable school environments. In particular their research was influential to the research methodology, as Lenz Taguchi and Palmer (2013) view material-discursive school environments as an entanglement between architecture, discourse and humans that are in turn co-constitutive of pupils’ ill/wellbeing and contribute to the production of a liveable school (p.671).

Moreover, I argue that documentation practices can be conceptualised as an example of how shared and liveable environments are explicitly constituted by promoting belonging to and within the place of school thus **extending** how the concept of 'liveable' is understood from Lenz-Taguchi and Palmer's research (2013). In the findings, a sense of belonging for children and families is promoted by carefully positioning documentation within the classroom space. As a result, this action assigns worth to children's playful learning and value within a school community that promotes a playful pedagogy. Belonging is a term used in the data repeatedly by all three of the participants in relation to their documentation practices. Positioning documentation with care exemplifies how children and teachers draw collective attention to intra-actions between "multiple images and discourses" (p.684), that Lenz-Taguchi and Palmer (2013) claim can contribute towards making a liveable school environment.

The redefinition **aligns** with the view that pedagogical documentation, ethics and political action are closely related (Pacini- Ketchabaw *et al.* 2015; Rinaldi, 2006). Putting documentation to work is a conscious act for Michelle. As an experienced and expert player Michelle makes conscious decisions about where the documentation is positioned and what is documented. The findings illustrate the care and thought involved and here is conceptualised as both an ethical and political act. *Where* the documentation practice takes place is significant in the redefinition, as the case study school is situated on the outskirts of a north west English industrial city within an area of high social disadvantage, where the staff worry that schooling is distrusted and considered low priority to local families. The participants explicitly connect belonging to the place of school as a way of promoting playful learning and the value of education itself to the local community, aligning documentation with implicit hopeful and aspirational gestures.

It follows that the findings suggest that documentation practices are agential in generating intra-actions that create senses of belonging. Subsequently, a material-discursive view of documentation can be seen as a constitution of a liveable space for teachers and families alike, where liveable is understood to enfold ideas related to worth and value into education itself. Documentation practices through this frame

enact ethics addressing matters of concern (Latour, 2004) and are positioned as a form of “political pedagogical documentation” (Pacini-Kerchabaw *et al.* 2015 p.122).

Constituting liveable school environments through material-discursive frames (Lenz Taguchi and Palmer, 2013) has parallels with *lively stories* in the reworked definition. Lively stories emphasise documentation practices as an ethical enactment within environmental humanities (Blaise *et al.* 2017). Conversely, the definition **extends** concepts of *lively stories* to inhabit spaces apart from nature, as matters of concern are less environmental and multispecies, and more entangled with liveliness and relationality within urbanised specialities. Theorising aspects of documentation practice as lively stories can be associated with Lenz Taguchi and Palmer’s (2013) call for new possibilities in understanding what constitutes a liveable school environment that takes account of material-discursive relations (p.671). I **assert** that the findings illuminate practices that gesture towards what constitutes liveable school environments by accounting for the agentic nature of documentation practices as an urbanised lively story that generates intra-actions related with belonging and value.

What is significant within this definition is the requirement for a knowledgeable, trusted and self-assured style of pedagogical leadership and this can be limiting for many teachers in the field, particularly those in the contested policy context in countries such as England (Early Education, 2018). Therefore, this raises the question of how far it is possible for teachers to put their documentation practices to work within an accountability discourse. The coercion of policies and associated inspection regimes suggest that professional decision-making is at least constrained. Assessment practices are ever intensifying, seen in current moves to pilot changes that would alter and potentially further narrow the English ECE curriculum policy that in turn shape what is observed and assessed in classroom practice (DfE, 2018). Moreover, the findings present an example of an expert player of assessment practices who finds spaces for resistance. This is exemplified by documentation practices that manage to navigate policy and yet still retain some ownership by putting them to work to meet self-chosen pedagogical priorities.

What is illuminated is a hopeful and pragmatic picture of policy disruption, as the making and placing of documentation is an everyday act for teachers. Expert players can put to work the placing of documentation to reshape accountability agendas, which mean that the external reporting processes of accountability need not be the only driver. Other drivers can be internally directed towards the local community by putting documentation to work agentially to promote senses of belonging for families and children.

Following on from this, the reworked definition troubles the debate about what constitutes pedagogical documentation and makes it distinct from child observation. Dahlberg *et al.* (2013) make a clear distinction between child observation that is an assessment practice against standardised norms, and pedagogical documentation viewed as an observation of a child's capabilities without any such determiner. In the redefinition, I trouble Dahlberg *et al.* (2013) view that child observation and pedagogical documentation are distinct practices, by **asserting** that this distinction is limiting. The boundaries between them can become blurred when documentation practices are seen as agential and performative. What this infers is that distinguishing what counts as child observation or pedagogical documentation is not what matters. What matters is that many different types of documentation practice can do important and worthwhile pedagogical work that open up further opportunities in creating senses of belonging and value to children and their families. The knowledge that everyday documentation can act in meaningful and worthwhile ways when it is carefully positioned in specific classroom spaces and at specific times has potential. Such a shift in thinking could modestly contribute towards teachers developing more nuanced understandings of their pedagogical roles in assigning value to children's learning.

Pedagogical documentation as the only method that can influence pedagogical work is troubled when agential actions are taken into account. This suggests two possibilities, that the value placed on pedagogical documentation might be overstated and additionally and that the process has to be detailed and time-consuming (Buldu, 2010). Through a new materialist lens, the detail and interpretation of documentation is not what has the agential value, but rather how

the documentation behaves in classroom spacialities and through digital enactments. As a consequence, a dialogue can be opened about how much detail and time needs to be spent on developing documentation, and that other forms of assessment can be put to work pedagogically when the vibrant and spatial potentialities of documentation practices are foregrounded.

## **6.3. Implications**

New materialist perspectives on documentation practices demonstrate that relatively new and abstract theories can bring fresh insights and potentialities. Along with Hultman and Lenz Taguchi (2010), I am inspired by Barad's (1999) view that the endeavours of researchers can have real consequences. I have addressed the practical and conceptual implications of new materialist definitions in the earlier discussion chapter, so this following commentary considers the wider implications to the field.

### **6.3.1. Implication 1: The connection between pedagogical documentation and a pedagogy of listening is limiting**

New materialist perspectives do more than make learning visible in documentation practices. The association between pedagogical documentation and making learning visible is a view consistently made by key researchers in the field (Rinaldi, 2006; Reggio Children and Project Zero 2011; Carr *et al.* 2016). I build on previous research (Elfström Pettersson, 2018; Hultman and Lenz Taguchi, 2010; Kummen, 2014; Pacini-Ketchabaw *et al.* 2015) who concur that documentation practices work within and between human and non-human spaces and temporalities in an assemblage of children, teachers and families, classroom furniture, architectures and pedagogical material and policy drivers that make up and influence everyday practices.

Seeing documentation practices within an intra-active pedagogy (Lenz Taguchi, 2010) enables researchers to look beyond the experience of the child and acknowledge that those experiences are part of a wider vibrant assemblage. Extending the view to the intra-activity between children with a fuller range of non-human elements may well

add richness to what is understood by concepts such as 'listening' and 'voice' because it asks teachers to know and respond to children's voices as enfolded into a more than human dynamic.

### **6.3.2. Implication 2: New materialist theories open up dialogue about the *actions* and *forms* of documentation practices within classroom spaces.**

New materialist theories open up new conversations about the possible actions that documentation can have in classrooms. From this position, the forms and types of documentation become less important. In addition, the amount of detail in documentation is problematised. This is relevant because critiques of how to put pedagogical documentation into practice have centred on the time and effort it requires, particularly within pressurised policy contexts (Basford and Bath, 2014).

What documentation *does* is the dynamic element that is foregrounded, and what moves into the background and is thus less relevant is what assessment or policy agendas it has been created within. Shifting the value to the intra-actions that are generated rather than the interpretations that are made through documentation practices opens up new potentialities for ECE teachers to recognise the agential nature of documentation. Such pedagogical knowledge can be recognised straightforwardly in the classroom context. Documentation has been long recognised as a powerful pedagogical tool (Rinaldi, 2006; Dahlberg and Moss, 2006; Reggio Children and Project Zero, 2011).

Yet the application of pedagogical documentation has been hampered in the case of the English policy context with the pressures that are exerted on teachers to track and report data on a narrowing range of developmental aspects of learning (Roberts-Holmes and Bradbury, 2016). The practice knowledge of the agential nature of documentation underlines the entanglements between what teachers choose to document and how they put that material together (Elfström Pettersson, 2017; Lenz Taguchi, 2010). Consequently, documentation can be considered as an apparatus for creating knowledge and part of that knowledge can encompass the spatial and

temporal influences it can have within classroom spaces, regardless of what form or type of documentation it originated as.

### **6.3.3. Implication 3: Documentation practices act collectively within spaces**

The concept of documentation practices beyond a pedagogy of listening has led to an appreciation of the idea that documentation is not necessarily viewed as operating as an individual or singular entity. Individual pieces of documentation do not work in isolation in the findings. Rather, groupings of related documentation work together agentially with the human and non-human elements within classroom spaces and through temporalities. Michelle's comment that '*my room is a whole documentation of learning*' exemplifies the collective potential of documentation, which turned around and exponentially expanded the research enquiry.

Documentation acts within and between complex intra-actions amongst human and non-human elements in assemblage according to Merewether (2018). Hence, the thesis contributes knowledge as a theorisation of documentation as *spacetime mattering* (Barad, 2007, 2013), but also as a kind of vibrant matter within "groupings of diverse elements of all sorts. Assemblages are living throbbing confederations" (Bennett, 2010 p.23). Thus, *spacetime mattering* (Barad, 2007, 2013) is a valuable concept within new materialist perspectives of ECE practices. Likewise, the time and places that both documentation and groupings of documentation occupy are as significant as the subject and intention.

### **6.3.4. Implication 4: Documentation practices are put to work by expert players**

Seeing documentation practices as performative and agential within a pedagogical *spacetime mattering* (Barad, 2007, 2013) is a compelling way for teachers to put to work their pedagogies and offers the potential to expand the view about what and whose knowledges are valued in ECE. The how, where and what of documentation practices is significant, what is placed where and at which time can have differing intra-actions and influences. Documentation practices are thus doing critical work on behalf of teachers to both internal and external stakeholders.

Performatively, documentation practices act to affirm and give value to selected aspects of knowledge. As a result, the intra-actions can offset criticism of non-specialist school colleagues and resist challenge of formal learning approaches by asserting the value of playful pedagogies and breaking down the dichotomy between formalised and playful learning. In effect, this blurs the distinction between play and learning and aligns with material feminist theorising that disrupts binary thinking (Alaimo and Hekman, 2008; Lenz Taguchi, 2008). The use of hashtags in documentation shared by teachers on social media platforms is a potent actant in this respect, as the words and phrases empower the teacher to evoke what knowledge matters to her pedagogical values. Examples in the data point to how Michelle employs certain phrases and terms (#creative, #unique, #individual) that are attached to visual imagery in her use of social media. For that reason, the terms and phrases point to an accessible means of crystallising the values that Michelle attaches to children's playful learning endeavours.

The agential nature of documentation practices reaches out to children and families enfolding them into the school world with powerful messages of belonging and value. How families attain a sense of belonging and value have been associated with the materiality of place in Somerville's (2013) research, that claims materiality has the potential to be aligned with the raising of aspirations in areas of low socio-economic status. The teachers in this thesis associated their documentation practices with raising aspiration and the longer-term regeneration of their local community. School is positioned here as a hopeful and aspirational space, rather than reinforcing disadvantage and notions of underachievement, although it is important to note that disadvantage has many more complex social, political and economic roots and remedies.

How far teachers are able to act back against the power accountability agendas exert and the risks that might engender are highly relevant to this argument. For many teachers the idea of challenging their assessment practices is just a risk too far. Nevertheless, the everyday act of positioning documentation and the possible affect that might engender for families and children is a highly accessible idea and exemplifies an intellectual resource that Taylor and Ivinson (2013) posit is possible



through applications of new materialist theory. In addition, the findings provide an example of how a relational study can meaningfully explore the structural connections that underpin assemblages such as within the assessment agenda, that De Freitas (2017) believes have been neglected within relational ontologies. Furthermore, this notion offers a realistic kind of weapon in ECE classroom practice armoury that might counter policy intensification and repositions aspects of the accountability agenda into a discourse shaped by the teacher, rather than something that teachers react to and are constrained by.

In turn, practice could be simplified by disrupting the policy logic of assessment always being associated with the notion that learning and developmental progress are captured in defined steps against prescribed goals. In addition, this model has the potential to provide a hopeful and achievable practice for teachers to feel a sense of control by loosening the concept of assessment shaping them into an instrument of the state, and reconnecting their documentation practices to their own pedagogical values. Documentation that is connected to pedagogical values is very much in keeping with Reggio philosophies (Rinaldi, 2006), however it is always questionable how far Reggio philosophies can transfer across social-political contexts. This seems an important contribution to knowledge in the presentation of a small team of teachers constructing versions of practice that align with their beliefs and taking a joyful glee in that construction. A positive construction of practice has added relevancy in a period where ECE teachers have a compromised professionalism because their accommodation of assessment agendas within the English policy context have forced an embattled identity, who lacks agency and is compliant and cynical (Bradbury, 2012).

## **6.4. Limitations**

In this section I consider the limitations of the thesis and in particular how I gathered and analysed data. My pre-existing professional relationship with Michelle enabled access to the school and flexibility in how the research developed and shifted

direction. Moreover, I had to ensure I did not take advantage of this good will as our planned time elapsed and our conversation spilled over in order to minimise the ethical burden. In the same way, the on-line blog evolved as a second research approach through Michelle's enthusiastic engagement and enabled her to take control of how much and how frequently she contributed.

The control that Michelle had with her contributions as to what constituted pedagogical documentation in her practice also offers a potential weakness to the thesis. Because Michelle led a small team of the Reception teacher, Patrice and a small team of teaching assistants the conception of what pedagogical documentation looked like was led by Michelle's ideas. In the earlier sections of this chapter I have defined documentation in a new materialist frame and this definition is limited to what the generated data in one school and under the leadership of one teacher would allow. Therefore, the data from one case study school leads to a potential weakness. I also found that Michelle's conception of pedagogical documentation was an amalgam of ideas borrowed from Reggio Emilia and New Zealand, alongside her own observation and assessment practices which included how she approached her use of social media. All these documentation practices spilled out into her use of narration and imagery. Also, this was a much more complex practice than Reggio or New Zealand iterations of pedagogical documentation might suggest and was more in line with the view of multi-documentation being the norm (Alasuutari *et al.* 2014).

Therefore, the highly personalised nature of an in-depth study means the data is limited to one school but also one culture, one gender and one social class. A broader piece of work that engaged with a larger population of schools over a wider geographical area would have countered the bias arising from this focus.

An ethical limitation of this research is how it could be positioned as a contribution towards normalising surveillance cultures that enthusiasm for developing documentation can engender (Bath, 2012; Blaiklock, 2010; Matusov *et al.* 2016; Sparrman and Lindgren, 2010). Although this outcome was unintended, on reflection new materialist theoretical frames in foregrounding the non-human can push the human to the background. This may have contributed to silencing and further

objectifying the child participants. Selecting whose stories to tell also risked the silencing of other stories. Other ethical sensitivities appear when I reflect back on what fragments of data were selected for analysis, such as those relating to the experience of bereavement. Choosing which fragments of data to include or exclude can unsettle emotional states in research practice (MacLure, 2006). Selecting the documentation related to bereavement exemplifies the sorts of ethical and methodological uncertainties that new materialist methodologies can open up (Chesworth, 2018).

A significant influence on the research design was the choice I made to explore the theoretical frame of new materialism which brought benefits but also many limitations. A limitation that I have addressed in the discussion chapter was the lack of a roadmap as I sat on the edge of a methodology that slowed down my development of a research plan, as shifting the research focus to the non-human was a constant tension that seemed insurmountable at times. Difficulties were manifested in the need to constantly undo the procedures of familiar qualitative research, as new materialist research methods suggest that interpretative taken-for-granted approaches that focus on language and narrative become less useful when the focus moves to the relations between the human and non-human in the research assemblage (Fox and Alldred, 2017).

However, I found that working with established research methods, rather than against them, made the methodology workable. This is exemplified by the intraview analysis (Kuntz and Presnell, 2012). This generated data would be familiar to a qualitative researcher and included transcriptions and photographs. Nevertheless, in order to layer in a new materialist framing I looked for the action and behaviour of the non-human matter of documentation, as well as taking account of more familiar qualitative lenses related to how participants sought meaning and interpretation. Inevitably, the research was rooted in human interpretations as the research design engaged with three teachers and their documentation practices. On reflection, it might have been fruitful to bypass the teachers' views and find a way to observe the documentation directly within the school spaces.

Seeking teachers' experiences with documentation in order to ponder the intra-actions that are generated still seems like a sensible approach and an example of seeking productive and pragmatic models of posthuman theorising in educational contexts, by "keeping sight of the human" (Bennett, 2016 p.70). In the same way, the methodology is a form of "mild posthumanism" that studies the entanglement between human and non-human (Bennett, 2016 p.63).

On balance, the research design brought rewards in the opening of new ways of thinking about how learning occurs within and through educational spaces. This has led to seeing documentation in a richer and broader landscape, as an intra-active and agential element that reflects a complexity that cannot be separated from the space, time and culture and prevailing discourses in which it is created (Lenz Taguchi, 2010).

## **6.5. Future research directions**

In conclusion, the final section considers possible research directions that have opened up. These directions point to how new materialist theorisations of documentation practices can illuminate how learning processes are shaped by spatiality and temporality.

### **6.5.1. Documentation practices within spaces**

The thesis has led to an understanding that documentation practices are created, act and perform within classroom spaces. Leading from the nature of data coming from one school, one line of enquiry that opens up is how documentation practices perform in differing contexts, and what benefits there might be of opening up a dialogue between teachers with different sorts of classroom spaces and a wider set of contexts and cultural practices. In addition, this might enable a consideration of how far documentation and spatialities relate and intra-act across contexts and also retain a foothold in everyday practice that would make new materialist theorising potentially more accessible and understandable. Working alongside a wider group of teachers and involving the participants from this study would support those endeavours. Within this further enquiry the associations between documentation

practices as a performance and enactment of pedagogical leadership could be explored along with how that operates within material discursive frames. Additionally, this offers the potential for further exploration into what tensions are at play between policy intensification related to assessment processes and how ECE teachers hold onto notions of leading playful pedagogies.

How documentation performs in virtual spaces is another possible line of enquiry. The hashtags and imagery used in social media (#creative, #unique, #individual, #readytowrite, #sensory play, #messy play, #planning #consultingchildren #whatnext) took on particularly intriguing actions as they appeared to manifest concepts in simple and direct forms. Further research enquiries might question what actions and behaviours hashtags make and within what spaces new technologies inhabit in an assemblage that moves beyond classroom walls. Furthermore, an enquiry such as this might enable investigation of how new materialist theories work in virtual spaces and enable a discussion about the matter of virtual concepts.

### **6.5.2. Documentation practices through time**

Time has a role to play in how documentation practices perform and intra-act in the findings (figure 10) as selected documentation about siblings were examined over a time period encompassing a moment of family crisis. In this frame, documentation performs differing actions, such as reassurance that the son of the family is engaging in playful learning in the period between his father's bereavement and the funeral. This suggests that documentation practices act outside of a teacher's world of accountability and assessment frames and can act in family spaces but are particularly relevant and impactful at different times. Consequently, this reveals a range of ethical commitments and responsibilities which teachers navigate, including careful attention to children's wellbeing and how teachers communicate that to families.

A future research enquiry might involve taking one family's experiences of documentation over a period to see what enactments and performances occur with documentation at different times in a familial space. Accordingly, this would need to be countered with the ethical responsibilities of the researcher to take into account what matters would be better suited to private rather than public domains.

## 6.6. Final thoughts

Finally, it is time to consider my reflections at the end of the thesis journey. It is arguable how far new materialist theories can create new ethical, political and intellectual resources within a climate of policy intensification (Taylor and Ivinson, 2013) that can be put to work outside of a theoretical debate.

New materialism is a complex theoretical idea with a technical language that takes time to study and access and is not widely discussed outside of elite scholarship or applied in teacher education. Thus, it has not found traction in the practice language of ECE teachers, except for some examples where researchers have gathered data alongside classroom teachers (Murriss, 2016; Sellers, 2013). Whilst the data proposes that new materialism can be a fruitful lens to apply as it can elucidate practices and spaces that teachers create to act back against assessment practices, it requires an expert player to put to work a pedagogy that operates within accountability agendas.

What this thesis has brought to light is that theories such as new materialism can bring fresh ways to study well-regarded pedagogical practices when the focus shifts to the relationships between material and discourse. A research field such as pedagogical documentation is well ploughed but still can offer up new potentialities. Because new materialism has little in the way of a methodological roadmap, it has brought about opportunities to be playful and inventive with collecting and responding to data, apposite in a playful pedagogy such as ECE.

Conversely, such new approaches also bring new methodological uncertainties (Chesworth, 2018) that need to be considered along with what sorts of focus new materialist lens can take to a broader field of study than education at a time in human history with pressing ecological concerns that need addressing (Kraftl, 2018).

Consequently, new potentialities are illuminated for both theory and practice. Most significantly, it points to the kinds of useable and pragmatic applications of posthuman theory such as new materialism, what has been termed “mild

posthumanism” (Bennett, 2016 p.63). Theories that have been perceived as elitist could have further potentialities and the ECE classroom presents a rich field for finding kinds of accessible and understandable applications. Such foregrounding of more relational and ethical assessment practices (Basford and Wood, 2018) seen through the lens of new materialism points towards more hopeful and flourishing discourses (Moss, 2015) at work.

When I reflect back to the rationale and context of my research enquiry, I can see that I now have a more nuanced view of the role that observation of children’s learning can have for the ECE teacher. My findings seem to point to the role of documentation within but also outside of everyday pedagogical practices to reflect the moral and ethical endeavours at play for teachers. A narrative of confident, ethical and playful teachers at work within the vital matter and materiality of documentation illuminate that ECE classrooms can be constructed as liveable and flourishing professional spaces, a message I can share with my student teachers and most needed in the present policy climate:

we need to think more but think differently and together with other material-discursive agents in the school environment. Children, youth and adults need to collaboratively engage in practices of intra-active engagements of imagination, where multiple images and discourses about the school environment, ill and well-being, are allowed to be expressed, enunciated and actualised. Such enunciations might enhance well-being and make the school environment become a more livable place. (Lenz Taguchi and Palmer, 2013 p.684-685)

## References

- Alaimo, S., and Hekman, S. (2008). *Material feminisms*. Bloomington: Indiana University Press.
- Alasuutari, M., and Kelle, H. (2015). Documentation in childhood. *Children and Society*, 29(3), 169-173. DOI:10.1111/chso.12119
- Alasuutari, M., Markström, A., and Vallberg-Roth, A. (2014). *Assessment and documentation in early childhood education*. Abingdon: Routledge.
- Alasuutari, M., and Karila, K. (2010). Framing the picture of the child. *Children and Society*, 24(2), 100-111. DOI:10.1111/j.1099-0860.2008.00209.x
- Alvestad, T., and Sheridan, S. (2015). Preschool teachers' perspectives on planning and documentation in preschool. *Early Child Development and Care*, 185(3), 377-392. DOI:10.1080/03004430.2014.929861
- Anderson, B., and Albin-Clark, J. (2013). Using creative arts for collaboration. In P McIntosh and D Warren (Eds.), *Creativity in the classroom Bristol, Intellect* (pp. 11-23). Bristol: Intellect.
- Anning, A. (2015). Play and the legislated curriculum. In J. Moyles (Ed.), *The excellence of play* (4th ed., pp. 20-29). Maidenhead: OUP.
- Aslanian, T. (2015). Getting behind discourses of love, care and maternalism in early childhood education. *Contemporary Issues in Early Childhood*, 16(2), 153-165. DOI:10.1177/1463949115585672
- Atkins, L., and Wallace, S. (2012). *Qualitative research in education* London: SAGE.
- Ball, S. 2017, *The education debate* Third edition. Policy Press, Bristol.
- Ball, S. 2013, *The education debate*, Second edition. Policy Press, Bristol.
- Ball, S. and Olmedo, A. 2013, "Care of the self, resistance and subjectivity under neoliberal governmentalities", *Critical Studies in Education*, vol. 54, no. 1, pp. 85-96.
- Barad, K. (2013). Ma(r)king time: Material entanglements and rememberings: Cutting Together - Apart 1. In Carlile, P. Nicolini, D. Langley, A. Tsoukas, H. (Ed.), *How matter matters: Objects, artifacts, and materiality in organization studies* (pp. 17-28). Oxford: Oxford University Press. DOI:9780199671533.001.0001
- Barad, K. (2007). *Meeting the universe halfway: Quantum physics and the entanglement of matter and meaning*. London: Duke University Press.
- Barad, K. (1999). Agential realism. Feminist interventions in understanding scientific practices. In M. Biagioli (Ed.), *The science studies reader* (pp. 1-11). London: Routledge.
- Basford, J., and Bath, C. (2014). Playing the assessment game: An English early childhood education perspective. *Early Years*, 34(2), 119-132. DOI:10.1080/09575146.2014.903386



- Basford, J., and Wood, E. (2018). Assessment in early childhood education in England two readings, many lenses. In J. Roopnarine, J. Johnson, S. Flannery Quinn and M. Patte (Eds.), *Handbook of international perspectives on early childhood education* (pp. 350-364). London: Routledge.
- Bath, C. (2012). 'I can't read it; I don't know': Young children's participation in the pedagogical documentation of English Early Childhood Education and Care settings. *International Journal of Early Years Education*, 20(2), 190-201. DOI:10.1080/09669760.2012.715242
- Beitin, B. (2012). Interview and sampling: How many and whom. In Gubrium, J. F., Holstein, J. A., Marvasti, A. B. and McKinney, K. D. (Ed.), *The SAGE handbook of interview research: The complexity of the craft* (pp. 243-254). Thousand Oaks, CA: DOI:10.4135/9781452218403.n17
- Bennett, J. (2004). The force of things: Steps toward an ecology of matter. *Political Theory*, 32(3), 347-372. DOI:10.1177/0090591703260853
- Bennett, J. (2010). *Vibrant matter: A political ecology of things*. London: Duke University Press.
- Bennett, L. (2016). Thinking like a brick. In Taylor, C. A., and Hughes, C. (Ed.), *Posthuman research practices in education* (pp. 58-74). Hampshire: Palgrave Macmillan.
- Blaiklock, K. (2010). Te Whāriki, the New Zealand early childhood curriculum: Is it effective? *International Journal of Early Years Education*, 18(3), 201-212. DOI:10.1080/09669760.2010.521296
- Blaise, M. (2013). Activating micropolitical practices in the early years: (Re)assembling bodies and participant observations. In R. Coleman and J. Ringrose (Ed.), *Deleuze and research methodologies*. (pp. 184-200). Edinburgh: Edinburgh University Press.
- Blaise, M. (2016). Fabricated childhoods: Uncanny encounters with the more-than-human. *Discourse: Studies in the Cultural Politics of Education*, 37(5), 617-626. DOI:10.1080/01596306.2015.1075697
- Blaise, M., Hamm, C., and Iorio, J. (2017). Modest witness(ing) and lively stories: Paying attention to matters of concern in early childhood. *Pedagogy, Culture and Society*, 25(1), 31-42. DOI:10.1080/14681366.2016.1208265
- Blaise, M., Hamm, C., and Iorio, J. (2017). Modest witness(ing) and lively stories: Paying attention to matters of concern in early childhood. *Pedagogy, Culture and Society*, 25(1), 31-42. DOI:10.1080/14681366.2016.1208265
- Bradbury, A. (2018). Datafied at four: The role of data in the 'schoolification' of early childhood education in England. *Learning, Media and Technology*, , 1-15. doi:10.1080/17439884.2018.1511577
- Bradbury, A. (2014). Learning, assessment and equality in early childhood education (ECE) settings in England. *European Early Childhood Education Research Journal*, 22(3), 347-354. DOI:10.1080/1350293X.2014.912897

- Bradbury, A. (2012). 'I feel absolutely incompetent': Professionalism, policy and early childhood teachers. *Contemporary Issues in Early Childhood*, 13(3), 175-186. DOI:10.2304/ciec.2012.13.3.175
- Bradley, B., Sumsion, J., Stratigos, T., and Elwick, S. (2012). Baby events: Assembling descriptions of infants in family day care. *Contemporary Issues in Early Childhood*, 13(2), 141-153. DOI:10.2304/ciec.2012.13.2.141
- Braidotti, R. (2018). A theoretical framework for the critical posthumanities. *Theory, Culture and Society*, 1(1), 1-31. DOI:org/10.1177/0263276418771486
- Braidotti, R. (2002). *Metamorphoses: Towards a materialist theory of becoming*. Cambridge: Polity Press.
- Braidotti, R. (2011). *Nomadic theory*. New York: Columbia University Press.
- Braidotti, R. (2013). Posthuman humanities. *European Educational Research Journal*, 12(1), 1-19. DOI:10.2304/eeerj.2013.12.1.1
- British Education Research Association. (2018). Ethical guidelines for educational research. Retrieved June 01 2018 from [https://www.bera.ac.uk/wp-content/uploads/2018/06/BERA-Ethical-Guidelines-for-Educational-Research\\_4thEdn\\_2018.pdf?noredirect=1](https://www.bera.ac.uk/wp-content/uploads/2018/06/BERA-Ethical-Guidelines-for-Educational-Research_4thEdn_2018.pdf?noredirect=1)
- Buldu, M. (2010). Making learning visible in kindergarten classrooms: Pedagogical documentation as a formative assessment technique. *Teaching and Teacher Education* 26(7), 1439-1449. DOI:10.1016/j.tate.2010.05.003
- Butler, J. (2011). *Bodies that matter: On the discursive limits of sex* (2nd ed.). London: Routledge.
- Cagliari, P., Castagnetti, M., Giudici, C., Rinaldi, C., Vecchi, V. and Moss, P., (2016). *Loris Malaguzzi and the schools of Reggio Emilia*. London: Routledge
- Carr, M., Cowie, B., and Mitchell, L. (2016). Documentation in early childhood research: Practice and research informing each other. In A. Farrell, S. Kagan and K. Tisdall (Eds.), *The SAGE handbook of early childhood research* (pp. 277-291). London: SAGE.
- Carr, M., and Lee, W. (2012). *Learning stories: Constructing learner identities in early education*. London: SAGE
- Carr, M., Lee, W., Mitchell, L., and Soutar, B. (2013). *Understanding the Te Whāriki approach*. London: Routledge.
- Chan, A., and Ritchie, J. (2016). Parents, participation, partnership: Problematising New Zealand early childhood education. *Contemporary Issues in Early Childhood*, 17(3), 289-303. DOI:10.1177/1463949116660954
- Chesworth, L. (2018). Embracing uncertainty in research with young children. *International Journal of Qualitative Studies in Education*, 1-12. DOI:10.1080/09518398.2018.1499982
- Clark, A. (2010). *Transforming children's spaces: Children's and adults' participation in designing learning environments* London: Routledge.

- Clark, V. (2012). Becoming-nomadic through experimental art making with children. *Contemporary Issues in Early Childhood*, 13(2), 132-140. DOI:10.2304/ciec.2012.13.2.132
- Cohen, L., Manion, L. and Morrison, K. (2011). *Research methods in education* (7th ed.). London: Routledge.
- Cohen, B., Moss, P., Petrie, P. & Wallace, J. (2018), "'A New Deal for Children?' – what happened next: a cross-national study of transferring early childhood services into education", *Early Years*, pp. 1-18.
- Coleman, R., and Ringrose, J. (2013). *Deleuze and research methodologies*. Edinburgh: Edinburgh University Press.
- Connolly, W. (2013). The 'New materialism' and the fragility of things. *Millennium - Journal of International Studies*, 41(3), 399-412. DOI:10.1177/0305829813486849
- Coole, D., and Frost, S. (2010). *New materialisms: Ontology, agency, and politics*. London: Duke University Press.
- Deleuze, G. and Guattari, F. (1998). *A Thousand Plateaus. Capitalism and Schizophrenia* Minneapolis: University of Minnesota Press.
- Dahlberg, G., and Moss, P. (2010). Introduction by the series editors. In H. Lenz Taguchi (Ed.), *Going beyond the theory/practice divide in early childhood education introducing an intra-active pedagogy* (pp. ix-xx). London: Routledge.
- Dahlberg, G., Moss, P., and Pence, A. (2013). *Beyond quality in early childhood education and care; languages of evaluation* (3. ed). London: Routledge.
- Dahlberg, G., and Moss, P. (2006). Our Reggio Emilia. In C. Rinaldi (Ed.), *In dialogue with Reggio Emilia* (pp. 1-17). London: Routledge.
- Dalli, C. (2011). A curriculum of open possibilities: A New Zealand kindergarten teacher's view of professional practice. *Early Years*, 31(3), 229-243. DOI:10.1080/09575146.2011.604841
- Davies, B. (2018). Ethics and the new materialism: A brief genealogy of the 'post' philosophies in the social sciences. *Discourse: Studies in the Cultural Politics of Education*, 39(1), 113-127. DOI:10.1080/01596306.2016.1234682
- Davies, B. (2014). Reading anger in early childhood intra-actions. *Qualitative Inquiry*, 20(6), 734-741. DOI:10.1177/1077800414530256
- de Freitas, E. (2017). Karen Barad's quantum ontology and posthuman ethics: Rethinking the concept of relationality. *Qualitative Inquiry*, 23(9), 741-748. DOI:10.1177/1077800417725359
- de Freitas, E. (2012). The classroom as rhizome. *Qualitative Inquiry*, 18(7), 557-570. DOI:10.1177/1077800412450155
- de Freitas, E., and Palmer, A. (2016). How scientific concepts come to matter in early childhood curriculum: Rethinking the concept of force. *Cultural Studies of Science Education*, 11(4), 1201-1222. DOI:10.1007/s11422-014-9652-6

- Deleuze, G. (1992). Postscripts on the society of control. *October*, 59, 3-7.
- Deleuze, G., and Guattari, F. (1988). *A thousand plateaus: Capitalism and schizophrenia*. Minneapolis: University of Minnesota Press.
- Denzin, N. (2017). Data: The wonder of it all. In Koro-Ljungberg, M. and Tesar, M. (Ed.), *Disrupting data in qualitative inquiry: Entanglements with the post-critical and post-anthropocentric (post-anthropocentric inquiry)*. (pp. 81-93). New York: Peter Lang.
- Denzin, N., and Lincoln, Y. (2011). *The SAGE handbook of qualitative research* (4th ed.). London: SAGE.
- Department for Education. (2013). Early Years Outcomes. Retrieved May 2 2016 from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/237249/Early\\_Years\\_Outcomes.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/237249/Early_Years_Outcomes.pdf)
- Department for Education. (2014). Statutory Framework for the Early Years Foundation Stage (online). Retrieved May 2 2016 from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/335504/EYFS\\_framework\\_from\\_1\\_September\\_2014\\_\\_with\\_clarification\\_note.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/335504/EYFS_framework_from_1_September_2014__with_clarification_note.pdf)
- Department for Education. (2017). Statutory Framework for the Early Years Foundation Stage: Setting the standards for learning, development and care for children from birth to five. Retrieved August 3 2018 from [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/596629/EYFS\\_STATUTORY\\_FRAMEWORK\\_2017.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/596629/EYFS_STATUTORY_FRAMEWORK_2017.pdf)
- Department for Education. (2018). Statutory framework for the Early Years Foundation Stage; setting the standards for learning, development and care for children from birth to five [PILOT VERSION] London: Department for Education. Retrieved July 31 2018 from <https://www.foundationyears.org.uk/wp-content/uploads/2018/06/EYFSP-Pilot-Handbook-2018.pdf>
- Derrida, J. (1996). *Of grammatology*. Baltimore: Johns Hopkins University Press.
- Donaldson, J., and Scheffler, A. (1999). *The Gruffalo*. London: MacMillan.
- Drummond, M. (2008). Assessment and values; a close and necessary relationship. In S. Swaffield (Ed.), *Unlocking assessment: Assessment for reflection and application*, (pp. 3-19). London: Routledge.
- Duhn, I. (2012). Places for pedagogies, pedagogies for places; *Contemporary Issues in Early Childhood*, 13(2), 99-107. DOI:0.2304/ciec.2012.13.2.99
- Early Education. (2012). *Development Matters in the Early Years Foundation Stage (EYFS)*. London: Early Education.
- Early Education. (2018). *Commentary on the draft revised Early Years Foundation Stage Statutory Framework, including the early learning goals and areas of learning*. London: Early Education. Retrieved July 31 2018 from <https://www.early->

education.org.uk/sites/default/files/Early%20Education%20commentary%20on%20the%20draft%20revised%20ELGs%2023.7.18.pdf

- Early Excellence. (2016). Early excellence assessment tracker (EExAT). Retrieved 30 April 2018 from <http://earlyexcellence.com/eexat/>
- Edwards, C., Gandini, L., Forman, G., and Reggio Children (2012). *The hundred languages of children: The Reggio Emilia experience in transformation* (3rd ed. ed.). Oxford: Praeger Publishers.
- Edwards, E., Blaise, M., and Hammer, M. (2009). Beyond developmentalism? Early childhood teachers' understandings of multiage grouping in early childhood education and care. *Australasian Journal of Early Childhood*, 34(4), 55-63.
- Elfström Pettersson, K. (2013). Children's participation in preschool documentation practices. *Childhood*, 22(2), 231-247. DOI:10.1177/0907568213513480
- Elfström Pettersson, K. (2015). Sticky dots and lion adventures playing a part in preschool documentation practices. *International Journal of Early Childhood*, 47(3), 443-460. DOI:10.1007/s13158-015-0146-9
- Elfström Pettersson, K. (2017). Teachers' actions and children's interests. quality becomings in preschool documentation. *Tidsskrift for Nordisk Barnehageforskning*, 14(2), 1-17. DOI:10.7577/nbf.1756
- Elfström Pettersson, K. (2018). How a template for documentation in Swedish preschool systematic quality work produces qualities. *Contemporary Issues in Early Childhood*, 146394911875871. DOI:10.1177/1463949118758714
- Emilson, A., and Pramling Samuelsson, I. (2014). Documentation and communication in Swedish preschools. *Early Years: Journal of International Research and Development*, 34(2), 175-187. DOI:10.1080/09575146.2014.880664
- Fairchild, N. (2016). Plugging into the umbra: Creative experimentation (in)(on) the boundaries of knowledge production in ECEC research. *Reconceptualizing Educational Research Methodology*, 7(1), 16-30. DOI:10.7577/term.1823
- Fairchild, N. (2017). *Earthworm disturbances: The reimagining of relations in early childhood education and care*. Doctoral thesis; Retrieved December 01 2017 from <https://search.proquest.com/docview/1560011393>
- Ferrando, F. (2013). Posthumanism, transhumanism, antihumanism, metahumanism, and new materialisms. *Existenz*, 8(2), 26-32.
- Ferraris, M. (2012). *Documentality: Why is it necessary to leave traces*. New York: Fordham University Press.
- Fielding, N. (1994). Varieties of research interviews. *Nurse Researcher*, 1(3), 4-13. DOI:10.7748/nr.1.3.4.s2
- Fleet, A., Patterson, C., and Robertson, J. (2017). *Pedagogical documentation in early years practice : Seeing through multiple perspectives*. London: SAGE Publications.

- Fletcher, K., Comer, S., and Dunlap, A. (2014). Getting connected: The virtual holding environment. *Psychoanalytic Social Work*, 21(1-2), 90-106.  
DOI:10.1080/15228878.2013.865246
- Foucault, M. (2002), *The archaeology of knowledge*, Routledge, London
- Fox, N., and Alldred, P. (2017). *Sociology and the new materialism: Theory, research, action* London: SAGE
- Gandini, L. (2011). Play and the hundred languages of children: An interview with Lella Gandini. *American Journal of Play*, 4(1), 1-18.
- Gannan, S., and Davies, B. (2012). Postmodern, post-structural, and critical theories. In S. N. Hesse-Biber (Ed.), *Handbook of feminist research: Theory and praxis* (2. ed. ed., pp. 65-91). Thousand Oaks: SAGE.
- Garrick, R., Bath, C., Dunn, K., Maconochie, H., Willis, B. and Wolstenholme, C. (2010). Children's experiences of the Early Years Foundation Stage. Retrieved July 31 2014 from [http://dera.ioe.ac.uk/11582/7/DFE-RR071\\_Redacted.pdf](http://dera.ioe.ac.uk/11582/7/DFE-RR071_Redacted.pdf)
- Geerts, E. (2016). Ethico-onto-epistem-ology. Retrieved June 3 2018 from <http://newmaterialism.eu/almanac/e/ethico-onto-epistem-ology>
- Gibson, J. (2008). *The ecological approach to visual perception*. Hillsdale, N.J; London: Lawrence Erlbaum.
- Ginn, F. (2015). Post-humanism. In Susan Mayhew (Ed.), *A Dictionary of Geography* (5th ed., pp. 1-10). Hoboken, New Jersey: Wiley Blackwell.
- Given, H., Kuh, L., LeeKeenan, D., Mardell, B., Redditt, S., and Twombly, S. (2009). Changing school culture: Using documentation to support collaborative inquiry. *Theory into Practice*, 49(1), 36-46. DOI:10.1080/00405840903435733
- Goodley, D., Lawthorn, R., and Runswick Cole, K. (2014). Posthuman disability studies. *Subjectivity*, 7(4) 342-361. DOI: 10.1057/sub.2014.15
- Gray, J., Sandvoss, C., and Harrington, C. (2017). *Fandom*, (2nd ed.). *Identities and communities in a mediated world*. New York: NYU Press.
- Grieshaber, S., and Hatch, J. (2003). Child observation and pedagogical documentation as effects of globalisation. *Journal of Curriculum Theorizing*, 19(1), 89-102.
- Grosz, E. (1994). *Volatile bodies: Toward a corporeal feminism*. Bloomington, Indiana: Indiana University Press.
- Handforth, R., and Taylor, C. (2016). Doing academic writing differently: A feminist bricolage. *Gender and Education*, 28(5), 627-643.  
DOI:10.1080/09540253.2015.1115470
- Haraway, D. (1991). *A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the late Twentieth Century. Simians, Cyborgs, and Women: The Reinvention of Nature* (2nd ed.). New York: Routledge.

- Haraway, D. (1997). *Modest\_Witness@second\_Millennium. female-Man@\_meets\_OncoMouse*. New York: Routledge.
- Haraway, D. (2008). *When species meet*. Minneapolis: University of Minnesota Press.
- Haraway, D. (2016). *Staying with the trouble: Making kin in the chthulucene*. North Carolina: Duke University Press.
- Haraway, H. (1988). Situated knowledges: The science question in feminism and the privilege of partial perspective. *Feminist Studies*, 14(3), 575-599.
- Harwood, D., and Collier, D. (2017). The matter of the stick: Storying/(re)storying children's literacies in the forest. *Journal of Early Childhood Literacy*, 17(3), 336-352. DOI:10.1177/1468798417712340
- Hekman, S. (2007). Feminist methodology In W. Outhwaite, and S. Turner (Eds.), *The SAGE handbook of social science methodology* (pp. 534-546). London: SAGE. DOI:10.4135/9781848607958
- Hesse-Biber, S. (2012). Feminist research: Exploring, interrogating, and transforming the interconnections of epistemology, methodology, and method. In S. N. Hesse-Biber (Ed.), *Handbook of feminist research: Theory and praxis* (pp. 2-26). Thousand Oaks, CA: SAGE.
- Hodgins, B. (2012). Pedagogical narrations' potentiality as a methodology for child studies research. *Canadian Children*, 37(1), 4-11
- Hodgins, B., Thompson, D., and Kummen, K. (2017). Weavings, walks, and wonderings: Stories of the liveliness of pedagogical narration. In A. Fleet, C. Patterson, and J. Robertson (Ed.), *Pedagogical documentation in early years practice: Seeing through multiple perspectives*. (pp. 193-207). London: SAGE
- Højgaard, L., and Søndergaard, D. M. (2011). Theorizing the complexities of discursive and material subjectivity: Agential realism and poststructural analyses. *Theory and Psychology*, 21(3), 338-354. DOI:10.1177/0959354309359965
- Holbrook, T., and Pourchier, N. (2012). The exquisite corpse as A/r/t: Bodied troublings of qualitative research-as-usual. *Visual Arts Research*, 38(2), 41-55. DOI:10.5406/visuartsrese.38.2.0041
- Hultman, K., and Lenz Taguchi, H. (2010). Challenging anthropocentric analysis of visual data: A relational materialist methodological approach to educational research. *International Journal of Qualitative Studies in Education*, 23(5), 525-542. DOI:10.1080/09518398.2010.500628
- Jackson, A. Y., and Mazzei, L. (2012). *Thinking with theory in qualitative research: Viewing data across multiple perspectives*. London: Routledge.
- Johnson, J. and Rowlands, T. (2012). The interpersonal dynamics of in-depth interviewing. In Gubrium, J. F., Holstein, J. A., Marvasti, A. B. and McKinney, K. D. (Ed.), *The SAGE handbook of interview research: The complexity of the craft* (pp. 99-114). Thousand Oaks, CA: SAGE

- Johnson, R. (2000). Colonialism and cargo cults in early childhood education: Does Reggio Emilia really exist? *Contemporary Issues in Early Childhood*, 1(1), 61-71. DOI:10.2304/ciec.2000.1.1.8
- Jones, S., Thiel, J., Dávila, D., Pittard, E., Woglom, J. F., Zhou, X., Brown, T. and Snow, M. (2016). Childhood geographies and spatial justice. *American Educational Research Journal*, 53(4), 1126-1158. DOI:10.3102/0002831216655221
- Juelskær, M., and Schwennesen, N. (2012). Intra-active entanglements – an interview with Karen Barad. *Kvinder, Køn and Forskning*, 1(2), 10-23.
- Kalliala, M., and Pramling Samuelsson, I. (2014). Pedagogical documentation. *Early Years: Journal of International Research and Development*, 34(2), 116-118. DOI:10.1080/09575146.2014.906135
- Kay, L. (2018), "Bold Beginnings and the Rhetoric of 'School Readiness'", *FORUM*, vol. 60, no. 3, pp. 327-336.
- Kincheloe, J. (2001). Describing the bricolage: Conceptualizing a new rigor in qualitative research. *Qualitative Inquiry*, 7(6), 679-692. DOI:10.1177/107780040100700601
- Kind, S. (2013). Lively entanglements: The doings, movements and enactments of photography. *Global Studies of Childhood*, 3(4), 427-441. DOI:10.2304/gsch.2013.3.4.427
- Kline, L. (2008). Documentation panel: The "making learning visible" project. *Journal of Early Childhood Teacher Education*, 29(1), 70-80. DOI:10.1080/10901020701878685
- Knauf, H. (2015). Styles of documentation in German early childhood education. *Early Years*, 35(3), 232-17. DOI:10.1080/09575146.2015.1011066
- Kocher, L., and Pacini-Ketchabaw, V. (2011). Destabilising binaries in early childhood education; the possibilities of pedagogical documentation. In W. Midgley, M. Tyler, P. Danaher, A. Mander (Ed.), *Beyond binaries in education research* (pp. 46-59). New York: Routledge.
- Koro-Ljungberg, M., and MacLure, M. (2013). Provocations, re-un-visions, death, and other possibilities of "Data". *Cultural Studies ↔ Critical Methodologies*, 13(4), 219-222. DOI:10.1177/1532708613487861
- Koro-Ljungberg, M. (2016). *Reconceptualizing qualitative research and methodologies without methodology*. London: SAGE.
- Kraftl, P. (2018). A double-bind? taking new materialisms elsewhere in studies of education and childhood. *Research in Education*, 101(1), 30-38. DOI:10.1177/0034523718791880
- Kraftl, P., Horton, J., and Tucker, F. (2012). *Critical geographies of childhood and youth: Contemporary policy and practice*. Bristol: The Policy Press.
- Kuby, C. (2017). Why a paradigm shift of 'more than human ontologies' is needed: Putting to work poststructural and posthuman theories in writers'



- studio. *International Journal of Qualitative Studies in Education*, 30(9), 877-896. doi:10.1080/09518398.2017.1336803
- Kuby, C., Gutshall Rucker, T., and Kirchhofer, J. (2015). 'Go be a writer': Intra-activity with materials, time and space in literacy learning. *Journal of Early Childhood Literacy*, 15(3), 394-419. DOI:10.1177/1468798414566702
- Kuby, C., and Gutshall Rucker, T. (2016). *Go be a writer! : Expanding the curricular boundaries of literacy learning with children*. New York, NY: Teachers College Press.
- Kummen, K. (2014). When matter in the classroom matters: Encounters with race in pedagogical conversations. *International Journal of Child, Youth, and Family Studies*, 5(4), 808-825. DOI:10.18357/ijcyfs.kummenk.5422014
- Name of local authority Online. (2015). School poppy display is stunning tribute. Retrieved February 01 2018 from <http://about.nameoflocalauthority.typepad.com/news/2015/11/school-poppy-display-is-stunning-tribute.html>
- Kuntz, A., and Presnall, M. (2012). Wandering the tactical: From interview to intraview. *Qualitative Inquiry*, 18(9), 732-744. DOI:10.1177/1077800412453016
- Lareau, A. (2011), *Unequal childhoods: class, race, and family life*, Univ. of California Press, Berkeley.
- Latour, B. (2005). *Reassembling the social: An introduction to actor-network theory*. Oxford: Oxford University Press.
- Latour, B., and Porter, C. (2009). *Politics of nature : How to bring the sciences into democracy*. Cambridge: Harvard University Press.
- Latour, B. (2004). Why has critique run out of steam? From matters of fact to matters of concern. *Critical Inquiry*, 30(2), 225-248. DOI:10.1086/421123
- Lazzari, A. (2012). The public good. Historical and political roots of municipal preschools in Emilia Romagna. *European Journal of Education*, 47(4), 556-568. DOI:10.1111/ejed.12005
- Leander, K., and Sheehy, M. (2004). *Spatializing literacy research and practice*. New York: Lang.
- Lenz Taguchi, H. (2016). Deleuzo-Guattarian rhizomatics: Mapping the desiring forces and connections between educational practices and the neurosciences. In C. Taylor and C. Hughes (Ed.), *Posthuman research practices in education* (pp. 37-57). New York: Palgrave Macmillan.
- Lenz Taguchi, H. (2006). Reconceptualising early childhood education: Challenging taken for granted ideas. In J. Einarsdottir, and J. Wagner (Eds.), *Nordic childhoods and early education: Philosophy, research, policy and practice in Denmark, Finland, Iceland, Norway, and Sweden* (pp. 257-288). Greenwich: Information Age.

- Lenz Taguchi, H. (2009). Writing practices in Swedish teacher education and the inclusion/exclusion of subjectivities. *Critical Studies in Education*, 50(2), 145-158. DOI:10.1080/17508480802072921
- Lenz Taguchi, H., and Palmer, A. (2013). A more 'livable' school? A diffractive analysis of the performative enactments of girls' ill-/well-being with(in) school environments. *Gender and Education*, 25(6), 671-687. DOI: 10.1080/09540253.2013.829909
- Lenz Taguchi, H. (2008). An 'Ethics of resistance' challenges taken-for-granted ideas in Swedish early childhood education. *International Journal of Educational Research*, 47(5), 270-282. DOI:10.1016/j.ijer.2008.12.006
- Lenz Taguchi, H. (2010). *Going beyond the theory/practice divide in early childhood education: Introducing an intra-active pedagogy*. London: Routledge.
- Lenz Taguchi, H. (2012). A diffractive and Deleuzian approach to analysing interview data. *Feminist Theory*, 13(3), 265-281. DOI:10.1177/1464700112456001
- Leonardi, P. (2013). Theoretical foundations for the study of sociomateriality. *Information and Organization*, 23(2), 59-76. DOI:10.1016/j.infoandorg.2013.02.002
- Levy, G., Halse, C., and Wright, J. (2016). Down the methodological rabbit hole: Thinking diffractively with resistant data. *Qualitative Research*, 16(2), 183-197. DOI:10.1177/1468794115571434
- Lewis, J. & West, A. (2017), "Early Childhood Education and Care in England under Austerity: Continuity or Change in Political Ideas, Policy Goals, Availability, Affordability and Quality in a Childcare Market?", *Journal of Social Policy*, vol. 46, no. 2, pp. 331-348.
- Liljestrand, J., and Hammarberg, A. (2017). The social construction of the competent, self-governed child in documentation: Panels in the Swedish preschool. *Contemporary Issues in Early Childhood*, 18(1), 39-54. DOI:10.1177/1463949117692270
- MacLure, M. (2006). The bone in the throat: Some uncertain thoughts on baroque method. *International Journal of Qualitative Studies in Education*, 19(6), 729-745. DOI:10.1080/09518390600975958
- MacLure, M. (2015). The 'new materialisms': A thorn in the flesh of critical qualitative inquiry? In G. Cannella, M. Perez and P. Pasque (Ed.), *Critical qualitative inquiry: Foundations and futures*. (pp. 93-112). Walnut Creek, CA: Left Coast Press.
- MacLure, M. (2010). The offence of theory. *Journal of Education Policy*, 25(2), 277-286. DOI:10.1080/02680930903462316
- MacLure, M. (2013). The wonder of data. *Cultural Studies ↔ Critical Methodologies*, 13(4), 228-232. DOI:10.1177/1532708613487863
- MacRae, B., Hackett, A., Holmes, R., and Jones, L. (2017). Vibrancy, repetition, movement: Posthuman theories for reconceptualising young children in museums. *Children's Geographies*, 1-13. DOI: 10.1080/14733285.2017.1409884

- Mann, C., and Stewart, F. (2011). *Internet communication and qualitative research*. London: SAGE
- Marchesini, R. (2016). Nonhuman alterities. *Angelaki*, 21(1), 161-172. DOI:10.1080/0969725X.2016.1163839
- Markström, A. (2015). Children's views of documentation in the relations between home and school. *Children and Society*, 29(3), 231-241. DOI:10.1111/chso.12114
- Massey, D. (2005). *For space*. London: SAGE.
- Massumi, B. (2002). *Parables for the virtual*. Durham, NC: Duke University Press.
- Matusov, E., Marjanovic-Shane, A., and Meacham, S. (2016). Pedagogical voyeurism: Dialogic critique of documentation and assessment of learning. *International Journal of Educational Psychology*, 5(1), 1-26. DOI:10.17583/ijep.2016.1886
- May, T. (2003). When is a Deleuzian becoming ? *Continental Philosophy Review*, 36(2), 139-153. DOI:1026036516963
- Mazzei, L. (2014). Beyond an easy sense. *Qualitative Inquiry*, 20(6), 742-746. DOI:10.1177/1077800414530257
- Mazzei, L., and Jackson, A. Y. (2017). Voice in the agentic assemblage. *Educational Philosophy and Theory*, 49(11), 1090-9. DOI:10.1080/00131857.2016.1159176
- McNamara, O., and McNicholl, J. (2016). Poverty discourses in teacher education: Understanding policies, effects and attitudes. *Journal of Education for Teaching*, 42(4), 374-377. DOI:10.1080/02607476.2016.1215545
- Merewether, J. (2018). Listening to young children outdoors with pedagogical documentation. *International Journal of Early Years Education* 26 (3), 259-277. DOI 10.1080/09669760.2017.1421525
- Miller, M. (2014). Productive and inclusive? How documentation concealed racialising practices in a diversity project. *Early Years: An International Research Journal*, 2(14), 146-160 DOI:10.1080/09575146.2014.899998
- Ministry of Education. (2017). *Te Whāriki*. Wellington: New Zealand Government. Retrieved August 5 2017 from <http://www.education.govt.nz/assets/Documents/Early-Childhood/ELS-Te-Whariki-Early-Childhood-Curriculum-ENG-Web.pdf>
- Moss, P. (2014). *Transformative change and real utopias in early childhood education*. London: Routledge.
- Moss, P. (2015). There are alternatives! Contestation and hope in early childhood education. *Global Studies of Childhood*, 5(3), 226-238. DOI:10.1177/2043610615597130
- Moss, P. (2017), "Power and resistance in early childhood education: From dominant discourse to democratic experimentalism", *Journal of Pedagogy*, vol. 8, no. 1, pp. 11-32.
- Moss, P. (2018), *Alternative Narratives in Early Childhood*, Routledge, London.

- Murris, K. (2016). *The posthuman child: Educational transformation through philosophy with picturebooks*. London: Routledge.
- Name of Primary School (2018) *Name of Primary School Teaching and Learning Policy*  
Retrieved June 7 2019
- Niemi, R., Kumpulainen, K., and Lipponen, L. (2015). Pupils' documentation enlightening teachers' practical theory and pedagogical actions. *Educational Action Research*, 23(4), 599-16. DOI:10.1080/09650792.2014.942334
- Office for Standards in Education (2017) *Name of School Inspection Report*, Ofsted, London.
- Olsson, L. (2015). Deleuze and Guattari in early childhood education. In M. Peters (Ed.), *Encyclopedia of educational philosophy and theory* (pp. 1-6). Singapore: Springer. DOI:10.1007/978-981-287-532-7\_62-1
- Olsson, L. M. (2012). Eventicizing curriculum. *Journal of Curriculum Theorizing*, 28(1), 88-107.
- Olsson, M. (2009). *Movement and experimentation in young children's learning* London: Routledge
- Osgood, J. (2010), "Reconstructing professionalism in ECEC: the case for the 'critically reflective emotional professional'", *Early Years*, vol. 30, no. 2, pp. 119-133.
- Osgood, J. (2006), "Rethinking 'professionalism' in the early years: English perspectives", *Contemporary Issues in Early Childhood*, vol. 7, no. 1, pp. 1-4.
- Osgood, J., and Giugni, M. (2015). Putting posthumanist theory to work to reconfigure gender in early childhood: When theory becomes method becomes art. *Global Studies of Childhood*, 5(3), 346-360. DOI:10.1177/2043610615597160
- Oxford English Dictionary. (2018). Liveable; Retrieved July 27 2018  
from <https://en.oxforddictionaries.com/definition/liveable>
- Pacini-Ketchabaw, V., Nxumalo, F., Kocher, L., and Sanchez, A. (2015). *Journeys : Reconceptualizing early childhood practices through pedagogical narration* (2nd ed.). Toronto: University of Toronto Press Higher Education.
- Pacini-Ketchabaw, V., Kind, S., and Kocher, L. (2016). *Encounters with materials in early childhood education*. London: Routledge.
- Page, J. and Elfer, P. (2013). The emotional complexity of attachment interactions in nursery. *European Early Childhood Education Research Journal*, 21(4), 553-567. DOI:10.1080/1350293X.2013.766032
- Page, J. (2011). Do mothers want professional carers to love their babies? *Journal of Early Childhood Research*, 9(3), 310-323. DOI:10.1177/1476718X11407980
- Palmer, A. (2010). 'Let's dance!' theorising alternative mathematical practices in early childhood teacher education. *Contemporary Issues in Early Childhood*, 11(2), 130-143. DOI:10.2304/ciec.2010.11.2.130

- Palmer, A. (2016). 'Is this the tallest building in the world?' A posthuman approach to ethical dilemmas in young children's learning projects. *Global Studies of Childhood*, 6(3), 283-298. DOI:10.1177/2043610616665035
- Papatheodorou, T. (2009). Exploring relational pedagogy. In Papatheodorou, I. Moyles, J. (Ed.), *Learning together in the early years: Exploring relational pedagogy* (pp. 3-19). London: Routledge.
- Pedersen, H. (2010). Is 'the posthuman' educable? on the convergence of educational philosophy, animal studies, and posthumanist theory. *Discourse: Studies in the Cultural Politics of Education*, 31(2), 237-250. DOI:10.1080/01596301003679750
- Pedersen, H., and Pini, B. (2017). Educational epistemologies and methods in a more-than-human world. *Educational Philosophy and Theory*, 49(11), 1051-1054. DOI:10.1080/00131857.2016.1199925
- Pence, A., and Hix-Small, H. (2009). Global children in the shadow of the global child. *International Critical Childhood Policy Studies*, 6(1), 83-100.
- Pepperell, R. (2009). *The posthuman condition: Consciousness beyond the brain* (2nd ed.). Bristol: Intellect Books.
- Petersen, K. (2014). Interviews as intraviews: A hand puppet approach to studying processes of inclusion and exclusion among children in kindergarten. *Reconceptualizing Educational Research Methodology*, 5(1), 32-45. DOI:10.7577/term.995
- Picchio, M., Giandomenico, I., and Musatti, T. (2014). The use of documentation in a participatory system of evaluation. *Early Years: Journal of International Research and Development*, 34(2), 133-145. DOI:10.1080/09575146.2014.897308
- Pink, S. (2006). Visual methods. In V. Jupp (Ed.), *The SAGE dictionary of social research methods* (pp. 320-322). London: SAGE.
- Pink, S. (2009). *Doing sensory ethnography* (1. ed.). London: SAGE.
- Pink, S. (2015). *Doing sensory ethnography* (2. ed.). Los Angeles, California: SAGE.
- Primo, A., Zago, G., Oikawa, E., and Consoni, G. (2013). The post as an utterance: Analysis of themes, compositional forms and styles in blog genre studies. *Discourse and Communication*, 7(3), 341-358. DOI:10.1177/1750481313487623
- Quinn, J. (2013). Theorising learning and nature: Post-human possibilities and problems. *Gender and Education*, 25(6), 738-753. DOI:10.1080/09540253.2013.831811
- Rautio, P. (2014). Mingling and imitating in producing spaces for knowing and being: Insights from a Finnish study of child-matter intra-action. *Childhood*, 21(4), 461-474. DOI /10.1177/0907568213496653
- Reggio Children, and Project Zero. (2001). *Making learning visible: Children as individual and group learners*. Reggio Emilia: Reggio Children.

- Renold, E., and Mellor, D. (2013). Deleuze and Guattari in the nursery: Towards and ethnographic, multi-sensory mapping of gendered bodies and becomings. In R. Coleman (Ed.), *Deleuze and research methodologies* (pp. 23–41). Edinburgh: Edinburgh University Press.
- Reynolds, B., and Duff, K. (2016). Families' perceptions of early childhood educators' fostering conversations and connections by sharing children's learning through pedagogical documentation. *Education 3-13*, 44(1), 93-100.  
DOI:10.1080/03004279.2015.1092457
- Riley, M., and Holton, M. (2016). *Place-based interviewing: Creating and conducting walking interviews*. London: SAGE
- Rinaldi, C. (2006). *In dialogue with Reggio Emilia: Listening, researching and learning*. London: Routledge.
- Rintakorpi, K., and Reunamo, J. (2016). Pedagogical documentation and its relation to everyday activities in Early Years. *Early Child Development and Care*, , 1-12.  
DOI:10.1080/03004430.2016.1178637
- Rintakorpi, K., Lipponen, L., and Reunamo, J. (2014). Documenting with parents and toddlers: A Finnish case study. *Early Years*, 34(2), 188-197.  
DOI:10.1080/09575146.2014.903233
- Ritchie, J., and Buzzelli, C. (2012). Te Whāriki: The early childhood curriculum of Aotearoa New Zealand; In N. File, J. Mueller and B. Wisnecki (Eds.), *Curriculum in early childhood education: Re-examined, rediscovered, renewed* (pp. 146-159). Abingdon: Routledge. DOI:10.4324/9780203804360
- Roberts-Holmes, G. (2012). 'It's the bread and butter of our practice': Experiencing the early years foundation stage. *International Journal of Early Years Education*, 20(1), 30. DOI:10.1080/09669760.2012.664473
- Roberts-Holmes, G., and Bradbury, A. (2016). The datafication of early years education and its impact upon pedagogy. *Improving Schools*, 19(2), 119-128.  
DOI:10.1177/1365480216651519
- Roberts-Holmes, G. and Bradbury, A. (2016), "Governance, accountability and the datafication of early years education in England", *British Educational Research Journal*, vol. 42, no. 4, pp. 600-613.
- Roder, J. (2011). Beyond technicism: Towards 'Being' and 'knowing in an intra- active pedagogy. *He Kupu 'The Word'*, 2(5), 61-72.
- Rose, G. (2016). *Visual methodologies* (4th ed.). London: SAGE.
- Schiller, W., and Einarsdottir, J. (2009). Special issue: Listening to young children's voices in research - changing perspectives/changing relationships. *Early Child Development and Care*, 179(2), 125-130. DOI:10.1080/03004430802666932
- Scott, J., and Marshall, G. (2009). Humanism. Retrieved January 23 2017 from <http://www.oxfordreference.com.edgehill.idm.oclc.org/view/10.1093/acref/9780199533008.001.0001/acref-9780199533008-e-1045>

- Sellers, M. (2010). Re(con)ceiving young children's curricular performativity. *International Journal of Qualitative Studies in Education*, 23(5), 557-577. DOI:10.1080/09518398.2010.500629
- Sellers, M. (2015). "Working with (a) rhizoanalysis" and working (with) a rhizoanalysis. *Complicity*, 12(1), 6-31.
- Sellers, M. (2013). *Young children becoming the curriculum: Deleuze, Te Whāriki and curricular understandings (Contesting early childhood)*. London: Routledge.
- Seymour, J., Hackett, A., and Procter, L. (2015). *Children's spatialities : Embodiment, emotion and agency*. London: Springer Nature. DOI:10.1057/9781137464989
- Shotter, J. (2013). Agential realism, social constructionism, and our living relations to our surroundings: Sensing similarities rather than seeing patterns. *Theory and Psychology*, 24(3), 305–325. DOI:10.1177/0959354313514144
- Sightlines. (2010). Sightlines Initiative. Retrieved November 27 2018 from [www.sightlines-initiative.com](http://www.sightlines-initiative.com)
- Snaza, N., Appelbaum, P., Bayne, S., Carlson, D., Morris, M., Rotas, N., Sandlin, J., Wallin, J., and Weaver, J. (2014). Toward a posthumanist education. *JCT (Online)*, 30(2), 39-55.
- Somerville, M. (2013). The 'placetimemattering' of aspiration in the Blacktown learning community. *Critical Studies in Education*, 54(3), 231-244. DOI:10.1080/17508487.2013.831365
- Sparman, A., and Lindgren, A. (2010). Visual documentation as a normalizing practice. *Surveillance and Society*, 7(3/4), 248-261 DOI: 10.24908/ss.v7i3/4.4154
- Springgay, S., and Zaliwska, Z. (2015). Diagrams and cuts. *Cultural Studies ↔ Critical Methodologies*, 15(2), 136-144. DOI:10.1177/1532708614562881
- St Pierre, E. (2011). Post qualitative research; the critique and the coming. In N. Denzin, and Y. Lincoln (Eds.), *The SAGE handbook of qualitative research* (pp. 611-625). Thousand Oaks: SAGE
- St Pierre, E. (2016). Rethinking the empirical in the posthuman; In C. Taylor, and C. Hughes (Eds.), *Posthuman research practices in education* (pp. 25-36). London: Palgrave Macmillan.
- St. Pierre, E., Jackson, A., and Mazzei, L. (2016). New empiricisms and new materialism: Conditions for new inquiry. *Cultural Studies ↔ Critical Methodologies*, 16(2), 124. DOI:10.1177/1532708616638694
- St. Pierre, E. (2013). The posts continue: Becoming. *International Journal of Qualitative Studies in Education*, 26(6), 646-657. DOI:10.1080/09518398.2013.788754
- St. Pierre, J. (2015). Crippling communication: Speech, disability, and exclusion in liberal humanist and posthumanist discourse. *Communication Theory*, 25(3), 330-348. DOI:10.1111/comt.12054

- Stobbs, N., Harvell, J., and Reed, M. (2017). Developing pedagogical documentation within the EYFS curriculum framework. In A. Fleet, C. Patterson and J. Robertson (Eds.), *Pedagogical documentation in early years practice : Seeing through multiple perspectives* (pp. 41-54). London: SAGE.
- Taggart, G. (2016). Compassionate pedagogy: The ethics of care in early childhood professionalism. *European Early Childhood Education Research Journal*, 24(2), 173-185. DOI:10.1080/1350293X.2014.970847
- Taylor, A. (2013). *Reconfiguring the natures of childhood*. London: Routledge.
- Taylor, A., and Pacini-Ketchabaw, V. (2015). Learning with children, ants, and worms in the anthropocene: Towards a Common World pedagogy of multispecies vulnerability. *Pedagogy, Culture and Society*, 23(4), 507-529. DOI:10.1080/14681366.2015.1039050
- Taylor, A., Pacini-Ketchabaw, V., and Blaise, M. (2012). Children's relations to the more-than-human world. *Contemporary Issues in Early Childhood*, 13(2), 81-85. DOI:10.2304/ciec.2012.13.2.81
- Taylor, C. (2013). Objects, bodies and space: Gender and embodied practices of mattering in the classroom. *Gender and Education*, 25(6), 688-703. DOI:10.1080/09540253.2013.834864
- Taylor, C. (2016). Edu-crafting a cacophonous ecology: Posthumanist research practices for education. In Taylor, C., Hughes, C., (Ed.), *Posthuman research practices in education* (pp. 5-24). London: Palgrave Macmillan.
- Taylor, C., and Hughes, C. (2016). *Posthuman research practices in education*. London: Springer Nature.
- Taylor, C., and Ivinson, G. (2013). Material feminisms: New directions for education. *Gender and Education*, 25(6), 665-670. DOI:10.1080/09540253.2013.834617
- Taylor, J. (2011). The intimate insider: Negotiating the ethics of friendship when DOIing insider research. *Qualitative Research*, 11(1), 3-22. DOI:10.1177/1468794110384447
- Urban, M. (2016). At sea: What direction for critical early childhood research? *Journal of Pedagogy*, 7(1), 107-121. DOI:10.1515/jped-2016-0007
- Urban, M. (2018), "(D)evaluation of early childhood education and care? A critique of the OECDs International Early Learning Study" in *Improving the Quality of Childhood in Europe*, ed. Michiel Matthes, Lea Pulkkinen, Christopher Clouder, Belinda Heys, Alliance for Childhood, Brussels, pp. 91-99.
- Urban, M., and Dalli, C. (2012), "A profession speaking - and thinking - for itself" in *Early childhood grows up: towards a critical ecology of the profession* Springer, Dordrecht and London.
- Vallberg-Roth, A. (2012). Different forms of assessment and documentation in swedish preschools. *Nordic Early Childhood Education Research*, 5(23), 1-18. DOI:10.7577/nbf.479



- van der Tuin, I., and Dolphijn, R. (2010). The transversality of new materialism. *Women: A Cultural Review*, 21(2), 153-171. DOI:10.1080/09574042.2010.488377
- Vasterling, V. (1999). Butler's sophisticated constructivism: A critical assessment. *Hypatia*, 14(3), 17-38. DOI:10.1353/hyp.1999.0014
- Walkerdine, V.(1993). Beyond developmentalism? *Theory and Psychology* 3(4), 451-469. DOI: 10.1177/0959354393034004
- Warden, C. (2012). *Talking and thinking floorbooks: Using 'big book planners' to consult children* (2nd ed.). Auchterarder: Mindstretchers.
- Warren, A. (2014). 'Relationships for me are the key for everything': Early childhood teachers' subjectivities as relational professionals. *Contemporary Issues in Early Childhood*, 15(3), 262-271. DOI:10.2304/ciec.2014.15.3.262
- Weaver, J. and Snaza, N. (2017). Against methodocentrism in educational research. *Educational Philosophy and Theory*, 49(11), 1055-1065. DOI:10.1080/00131857.2016.1140015
- Wien, C., Guyevskey, V., and Berdoussis, N. (2011). Learning to document in Reggio-inspired education. *Early Childhood Research and Practice*, 13(2), 1-11.
- Winnicott, D. (2009). *Winnicott on the child*. Boston: Da Capo Press.
- Winter, C. (2017), "Curriculum policy reform in an era of technical accountability", *Journal of curriculum studies*, vol. 49, no. 1, pp. 55-74.
- Wolfe, C. (2010). *What is posthumanism?* Minneapolis: University of Minnesota Press.
- Wood, E., and Hedges, H. (2016). Curriculum in early childhood education: Critical questions about content, coherence, and control. *The Curriculum Journal*, 27(3), 387-405. DOI:10.1080/09585176.2015.1129981
- Wood, E. (2019). "Unbalanced and unbalancing acts in the Early Years Foundation Stage: a critical discourse analysis of policy-led evidence on teaching and play from the office for standards in education in England (Ofsted)", *Education 3-13 International Journal of Primary, Elementary and Early Years Education*, pp. 1-13.
- Zhang, Q. (2017). Emergent literacy as sociocultural practice: How well do new zealand parents fit with Te Whāriki? *Journal of Early Childhood Literacy*, 17(1), 69-91. DOI:10.1177/1468798415607939

# Appendices

## Appendix A Participant Details

Name *	Role	Involvement	Short biography
Michelle	Nursery Teacher	Main participant	Twenty five plus years teaching experience mainly with 3-5 year olds, past EY advisor for local authority.
Margaret	Head teacher	Secondary participant	Twenty five plus years teaching experience, Headteacher experience ten years plus.
Patrice	Reception teacher	Secondary participant	Three years plus teaching experience with 3-5 year olds.

\*Participant's names were changed to pseudonyms that they chose themselves.

## Appendix B Interview/Intraview and blog on-line discussion site schedule

Intraview	Pedagogical documentation focus (visual prompt)	On-line discussion site
1 (primary participant, Nursery teacher)	Big books (Large scrap books with photographs and dialogue made in small groups and teacher-led)	Communication in between face-to-face using images of documentation and related narratives between primary participant and researcher.
2 (primary participant Nursery teacher)	Learning Stories (Narrative observations with series of related photographs written to parent)	Communication in between face to fact using images of documentation and related narrative between primary participant and researcher.
3 (primary participant Nursery teacher)	Tapestry (Proprietary on-line system that creates observations using photographs/video, also tracks curricula developmental milestones and can be shared with parents)	Communication in between face to fact using images of documentation and related narrative between primary participant and researcher

4 (primary participant Nursery teacher) (Reception teacher)	Twitter (on-line micro-blogging about children's learning using photographs and text)	Communication in between face to face using images of documentation and related narrative between primary participant and researcher
5 (Reception teacher)	One child observed through all the pedagogical documentation examples	
6 (Headteacher)	Walking intraview around school space	
7 (Reception teacher)	Walking intraview around classroom space	

## Appendix C University of Sheffield Ethics Approval



Downloaded: 30/01/2017  
Approved: 30/01/2017

Joanne Albin-Clark  
Registration number: 140217926  
School of Education  
Programme: EdD Doctorate in Education

Dear Joanne

**PROJECT TITLE:** A case study of how one school uses pedagogical documentation to understand childrens lives and learning.

**APPLICATION:** Reference Number 011577

On behalf of the University ethics reviewers who reviewed your project, I am pleased to inform you that on 30/01/2017 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 011577 (dated 23/01/2017).
- Participant information sheet 1025587 version 4 (23/01/2017).
- Participant consent form 1025588 version 2 (12/12/2016).

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.

Yours sincerely

David Hyatt  
Ethics Administrator  
School of Education



# Application 011577

Section A: Applicant details	
Created:	Sun 9 October 2016 at 09:34
First name:	Joanne
Last name:	Albin-Clark
Email:	jmalbin-clark1@sheffield.ac.uk
Programme name:	EdD Doctorate in Education
Module name:	Ethical proposal
Last updated:	30/01/2017
Department:	School of Education
Date application started:	Sun 9 October 2016 at 09:34
Applying as:	Postgraduate research
Research project title:	A case study of how one school uses pedagogical documentation to understand children's lives and learning.

## Appendix D Participant Information Sheet

### Participant Information Sheet

#### 1. Research Project Title

How do teachers use pedagogical documentation to understand children's lives and learning within the context of an English Nursery classroom?

#### 2. Invitation paragraph

You are being invited to take part in a research project. Before you decide 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 me 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.

### **3. What is the project's purpose?**

The overall purpose of my proposed research is to consider how a teacher uses pedagogical documentation to understand children's lives and learning within the context of an English Nursery classroom. Within early childhood education pedagogical documentation has been shown to support teachers in developing their professional knowledge and can play a role in communicating the complex ways in which young children learn with parents and the wider school community. My research enquiry considers how a teacher perceives the potential of pedagogical documentation to provide rich interpretations of children's learning and their lived experiences.

### **4. Why have I been chosen?**

You have been chosen as you have already developed pedagogical documentation as part of your practice. This research is planned as a singular case study, so this means there are no other participants involved. If after reading this information you feel unable to proceed then another research participant will be approached.

### **5. 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 without it affecting any benefits that you are entitled to in any way. You do not have to give a reason.

### **6. What will happen to me if I take part?**

This research is planned to take place over a 12-16 week period. It will involve 6-8 research conversations at two weekly intervals, lasting between 45 – 60 minutes each. These research conversations will be at a time convenient to yourself and can be re-negotiated at regular intervals and will take place at your place of work.

The research conversations will involve an open ended approach to questions based on what significant pedagogical documentation you have gathered in the proceeding days or weeks. The documentation will then provide the stimulus for the research conversation.

The first research method I plan to use is a research conversation, which means there are no planned questions, so it takes the form of an open-ended interview. It is planned that the documentation will provide the stimulus for our conversation and involve us both exchanging comments and views that we feel are pertinent. This conversation may be recorded with your permission by either audio or video.

The second research method I plan to use is an on line closed blog between yourself and me. No one will be privy to this blog except my research supervisors at Sheffield University. This blog takes the form of a journal and will be based on my own written reflections from our research conversations. I am inviting you to contribute to these

reflections if you wish you. This blog will be available through the data collection and analysis phase of my research.

### **7. What do I have to do?**

There are no lifestyle restrictions involved to you participation in this study.

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

There are not foreseeable discomforts or risk to your involvement. The disadvantage maybe that being involved in the data collection may impinge on your PPA time (Planning, Preparation and Assessment Activity). If this becomes burdensome and affects your time unduly, the data collection schedule can be reviewed and re-negotiated to take this into account. If there are any unexpected discomforts, disadvantages and risks to you that arises during the research, please bring this immediately to my attention.

### **9. What are the possible benefits of taking part?**

Whilst there are no immediate benefits for you participating in the project, it is hoped that this work will support your review and reflection on the purposes and role that documentation plays in your everyday practice.

### **10. What happens if the research study stops earlier than expected?**

The study may stop at an earlier stage than originally intended. An example of why this may be the case would be that sufficient data has been collected. If the research does stop earlier than expected then you will be informed when this will happen and the reasons why this was the case.

### **11. What if something goes wrong?**

You are able to complain if something goes wrong. If you have any complaints about the treatment by myself as the researcher then you are advised to contact the main supervisor to the study who is Dr Liz Chesworth ([e.a.chesworth@sheffield.ac.uk](mailto:e.a.chesworth@sheffield.ac.uk)). If the nature of the complaint is more serious and occurs during or following your participation then this is termed a reportable adverse event. In this case you should contact the main supervisor in the first instance (as above). However if you feel your complaint has not been dealt with to your satisfaction then please contact the University's Registrar and Secretary Dr Andrew West. You can contact Dr West through his Personal Assistant Mrs Sandra Ibbotson. Telephone 0114 222 1051 Email [s.ibbotson@sheffield.ac.uk](mailto:s.ibbotson@sheffield.ac.uk)

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

All the information that I collect from and about you during the course of the research will be kept strictly confidential. This includes any information that may identify you, the children in your class or the identity of your school. You will not be able to be identified in any reports or publications.

### **13. What will happen to the results of the research project?**

The results of the research project will form part of my Education Doctoral thesis. The final thesis will be made available to you. You will not be identified in any report or publication. Data that is collected as part of this study may be used in future

conference papers and peer reviewed journal papers. If this is the case then you will be sent any future publications.

**14. Who is organising and funding the research?**

My employer, Edge Hill University pays my fees for my doctoral study at Sheffield University. No other funding or sponsorship is involved.

**15. Who has ethically reviewed the project?**

This study has been ethically approved by Sheffield University School of Education. The University's Research Ethics Committee monitors the application and delivery of the University's Ethics Review Procedure across the University.

**16. Contact for further information**

If you require further information in regard to this study please contact myself in the first instance. You can also contact my supervisor point for further information.

Jo Albin-Clark  
Edge Hill University  
School of Education  
St Helens Road  
Ormskirk, Lancashire L39 4QP  
jmalbin-clark1@sheffield.ac.uk  
01695 575171

Dr Liz Chesworth  
School of Education  
The University of Sheffield  
Western Bank  
Sheffield S10 2TN  
[e.a.chesworth@sheffield.ac.uk](mailto:e.a.chesworth@sheffield.ac.uk)  
0114 222 36

**Appendix E Consent form**

**Title of Project:** *How do teachers use pedagogical documentation to understand children's lives and learning within the context of an English Nursery classroom?*

**Name of Researcher:** Jo Albin-Clark

**Participant Identification Number for this project:**

**Please initial box**

**1. I confirm that I have read and understand the information sheet/letter (delete as applicable) dated [insert date] for the above project and have had the opportunity to ask questions.**

**2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason. Insert contact number here of lead researcher/member of research team (as appropriate).**

**3. I understand that my responses will be anonymised before analysis.  
I give permission for members of the research team to have access to my anonymised responses.**

**4. I agree to take part in the above research project.**

-----	-----	-----
<b>Name of Participant (or legal representative)</b>	<b>Date</b>	<b>Signature</b>
-----	-----	-----
<b>Name of person taking consent (if different from lead researcher)</b>	<b>Date</b>	<b>Signature</b>
-----	-----	-----
<b>Lead Researcher</b>	<b>Date</b>	<b>Signature</b>

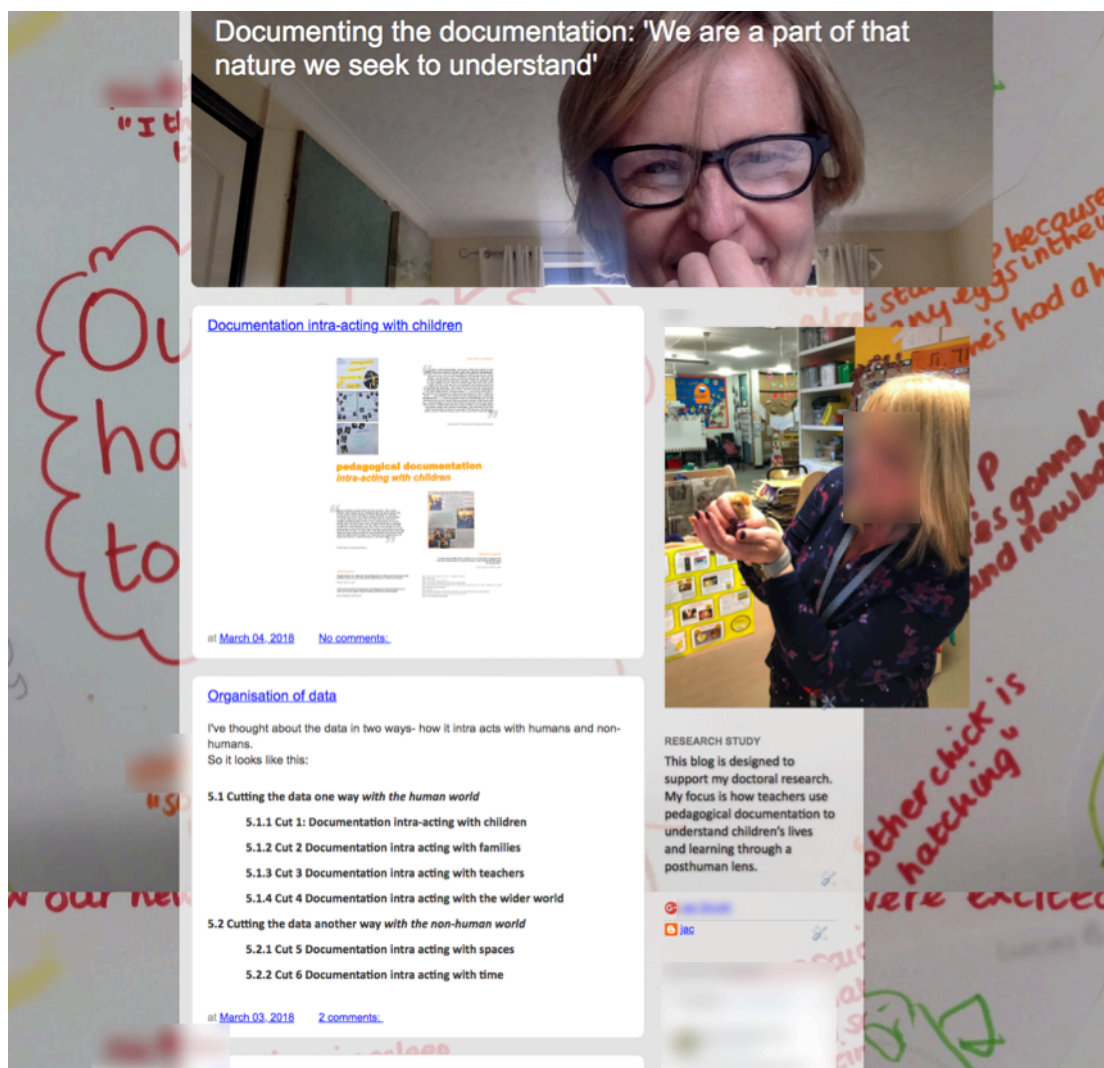
***To be signed and dated in presence of the participant***

**Copies:**

**Once this has been signed by all parties the participant should receive a copy of the signed and dated participant consent form, the letter/pre-written script/information sheet and any other written information provided to the participants. A copy for the signed and dated consent form should be placed in the project's main record (e.g. a site file), which must be kept in a secure location.**



## Appendix F Blog, on-line discussion site transcript visual and text extracts



Michelle 10 May 2017 at 2:17 Maybe I'm getting carried away Jo- tell me to hush if so

***New thread 6 comments 14 views***

Maybe I'm getting carried away Jo - and tell me to hush if so!

But the more I think about your research and consider my practice the more I think that I view my entire room is one huge documentation of learning - if its ok with you I'm going to take some photos of the provision to show you what I mean?

I want the space to feel like it belongs to my children so it grows and develops as they do - from being quite bare at the start of the year to being jam packed full of lots of stuff now - if its ok with you I will take some photos tomorrow to show you what I mean ....

also I am LOVING this blogging Michelle x



**Jo 9 May 2017 at 23:16 Comment 1**

Oh Michelle, I am saying the opposite, unshush! get carried away! Go with whatever direction feels right. That is really interesting about viewing the whole environment as a form of documentation. We could do our next interview walking around your provision if you like and you can talk me through your thinking. It looks like we'll need to look at the agency of the blog now as this is becoming something that is acting upon us....layers upon layers!



**Jo 9 May 2017 at 23:18 Comment 2**

Meant to say use the blog however you feel, it is both our spaces for thinking:)



**Michelle 10 May 2017 at 14:07 Comment 3**

I have photographed the stuff I mean but happy to wait and do the walk around if you prefer?



**Michelle 10 May 2017 at 14:22 Comment 4**

couldn't wait but was restrained and just added one little bit about key person walls !



**Jo 11 May at 00:02 Comment 5**

GO FOR IT! use this exactly as you want to bud!

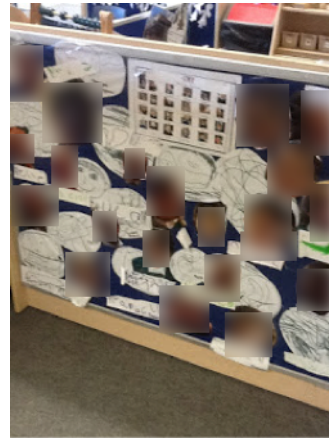


**Michelle 15 May 2017 at 04:14 Comment 6**

reflecting on this thread with a little sadness as I prepare to strip everything back ready for the new children (and their new teacher :( ) x



**Michelle 10 May 2017 at 2:17 Key Person Walls**  
***New thread 3 comments 11 views***



I start the year with quite a blank canvas sort of room - I don't believe that stuff on walls has any impact or meaning unless children are part of it. The first thing we do is to make our KEY PERSON walls - three reasons - because we want children to feel immediately part of their environment (these walls are on our carpet space where we welcome children and gather for a story before hometime) / I want children to feel part of a designated group and to have a way of checking if they aren't sure - so the walls act as a teaching point "lets check who is in miss Evans group " before they go off together etc / and we have a good time doing funny face selfies and printing them off - at first I encourage children to draw themselves also and add their drawings , then later in the year we encourage having a go at name writing and add these on too. I suppose a 4th aspect is that of assessment and progress as we can see at a glance how much children have grown in confidence and skills in mark making.



**Jo 10 May 2017 at 23:53 Comment 1**

It is absolutely useful Michelle because this is you making sense of what documentation is your practice, so to hear you thinking this through is really useful. I came across this definition of documentation from a Te Whariki perspective:

‘...material communication tools appropriated or developed by teachers/practitioners or researchers for the purpose of recalling, reflecting on, re-thinking and re-shaping learning, teaching, knowledge and understanding’ Carr, Cowie, & Mitchell 2016 p.277

I can see you are thinking about this sort of classroom documentation as having multiple purposes, for you and for the children. It is interesting that this also has a temporal aspect, in that it changes over the year. So different documentation is operating within different time spans- that's interesting I think. I like the labels here too, so documentation acting as a means of creating belonging to the group and to yourself but also to the room? Would it be right to think that?



**Michelle 11 May 2017 at 10:57 Comment 2**

that's exactly what I meant - I hoped I was using them correctly :)

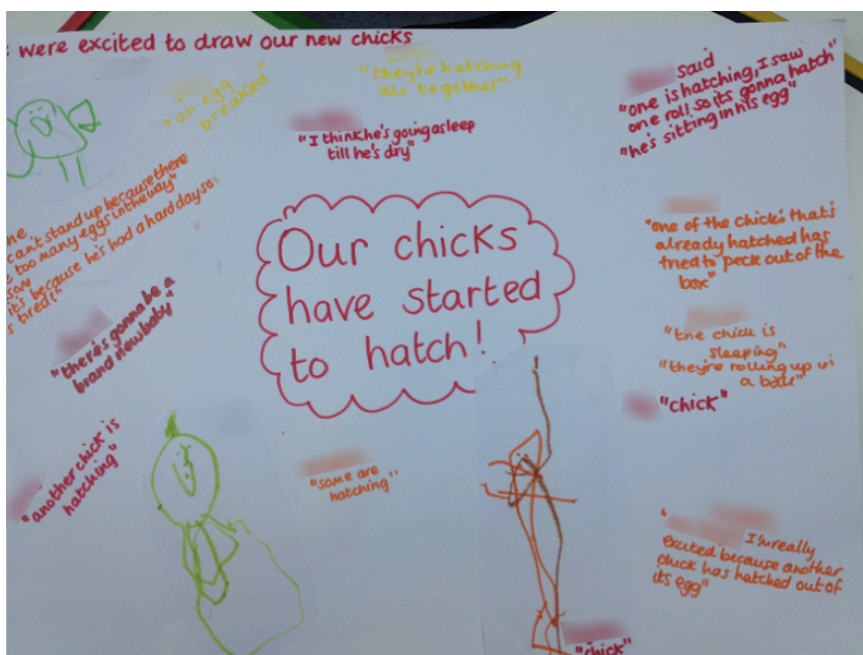


Jo 11 May 2017 at 23:55 Comment 3

It is like CHRISTMAS opening this blog! ☺

## Appendix F Intraview/interview transcript extracts with samples of documentation

### Transcript 1 Big books



JO: Do you want to talk to me about this, shall we start off with this one?

MICHELLE: Okay, as you know we are using the floorbook approach to developing children's thinking, making them aware of their own thinking. So we have things like 'planting and growing' coming up we decided to do 'things that grow' floorbook obviously.

JO: what is it about.....

MICHELLE: It hasn't got a great deal on the cover, we do that as we go along, in an assessmenty kind of way.

JO: Tell me more about that

MICHELLE: The idea being that as you reach the end of the book, or the end of the journey, the children would decide what would go on the cover....I would say to them this is about things that grow, what things do you know that grow.

JO: Like a little evaluation..

MICHELLE: Yes that will be completed in some way in the future.

JO: What appeals to you Michelle about this, it is fairly recent for you.

MICHELLE: Yes since about November we've been using this approach. Children are more in control of their own learning, certainly they feel as if they are. Pretty much the things that come out of it we would have done anyway, but at least they feel it comes from them. It also gives them an opportunity to do more talking. So we have established talking times now, the big black circle mat.... So when the big black circle mat comes out they know it is thinking time, talking time. I'm using things like the talking thinking tree, so they put their ideas on.

JO: So that is like a structure that they hang things on?

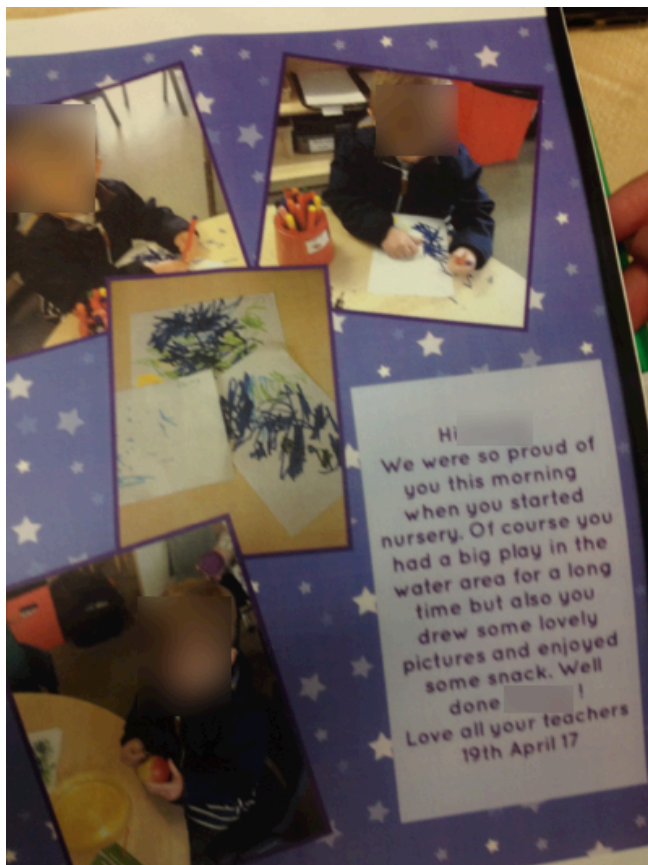
MICHELLE: Yes. We haven't got the official one, it's just one I found in the cast offs from the Christmas decorations in Asda [laughs].....It is about children being aware of their own thought processes and we're modelling to them what their thoughts have resulted in. That type of metacognition approach really [laughs].....we've done things like 3D mind maps. That's our starting point and we've found out what sorts of things the children were interested in.

JO So we've got [looks at book] phrases, images

MICHELLE This was the first talking time where we had a tub filled with things that might suggest things that grow. So babies, animals, food, plants....they could select the thing they liked the look of the most and from that we did a 3D mind map which led us down various different directions.



## Transcript 2 Learning Stories



MICHELLE: Well I brought this folder call learning stories to show you today. Some of them I've written and some of them other members of staff have written. I thought they were interesting because this is one of our ways of linking with home.

JO: Is that what you see is the primary thing?

MICHELLE: Yes I think, so it's about links with home, it's about children's own self initiated play, being valued, it's those sorts of messages really. In the past these would have been individual learning journeys but because we don't do individual learning journeys for individual children anymore we keep them in a book in the book area so the children can read and see themselves.

JO: Do they do that?

MICHELLE: Not really, infrequently. It's like anything isn't it? When you draw their attention to it there's like a little spate. There are probably more interesting books in the book area for them.

JO: It's interesting to see what the children make of it

MICHELLE: I like to think they are there though, and we've got a record of things that have gone home in one place. The other thing I do with a learning story is use them within the provision and that's more effective for the children engaging with them.

JO: What do you mean by using them in the provision?

MICHELLE: Well let's find Tyler, Tyler is probably the best example. I think I've probably mentioned this one to you before but Tyler is a new child who came after Christmas. Lovely little fella but quite shy, he loved the water so I did a nice learning story. The water's lovely for when they first come in, we always have the water right by the door because the ones who find it hard to settle like the water, so it's 'hello' take you right off your mum and right to the water.

JO: What do you think it's about that?

MICHELLE: Therapeutic maybe, and it's so in tune with what young children like to do.

JO: So kinaesthetic?

MICHELLE: They like the touchy stuff

JO: I found Playdough did the same thing- I had that by the door.

MICHELLE: Playdough goes down our other end. So this is literally right by the door so here Tyler is, straight in the water.

## Transcript 3 Tapestry

[← Previous Obs](#) [Next Obs →](#)

### Meeting our new friend the Word Wizard

Authored by [redacted] added 27 Mar 2017 09:42 AM  
Approved by [redacted] on 27 Mar 2017 09:42 AM

[Edit](#) [Share](#)


[Redacted]

[Export](#)

Like · 2 Likes

Liked by

- [redacted]



Users with the "Download media" permission can download these photos and videos

#### Notes

In our key group time today we met the word wizard, he is very clever and can use his magic sounding out ability to make objects appear from his magic bag. word wizard started by casting a magic spell that went "Abracadabra auraboo I'm going to make a spell for you!" Then he would sound out words like c-s-t or sh-ee-p, then if we could work out what the word was the object appeared! Then we played a game where [redacted] sounded out the object and we had to find it from the selection that had appeared from the bag. Finally as we put them back in the bag we practiced using our arms like robots to sound out the words again before saying the name of the item. Great work everyone! 🌟

#### Early Years Foundation Stage

Communication and Language

Listening and attention

40-60+ No Refinement

- ✓ Maintains attention, concentrates and sits quietly during appropriate activity.

Literacy

Reading

40-60+ No Refinement

- ✓ Hears and says the initial sound in words.
- ✓ Can segment the sounds in simple words and blend them together and knows which letters represent some of them.

Comments

MICHELLE: No it's a Xylophone. We have the xylophone now and I remember from the darkest recesses of my mind from my teacher training if you don't mind that if you only use the pentatonic scale which is d, e, g, a, b

JO: Oh my god

MICHELLE: That all the notes would sound lovely together. And it wouldn't matter what order be played in. It would always sound lovely. So I took all this evening though it's off and just had a, d, e, g, a, b. I put one sharp on because it was supposed to be spooky music



JO: So a bit of jarring

MICHELLE: Yeah a bit jarring. We had a selection of other instruments, there for them to choose. And we had a basket full of these little cards. With pictures of the instruments that are all velcroed, and the idea was that they chose the pictures to compose their own music, and they play the instruments in the order that they put the pictures up.

JO: Oh I see

MICHELLE: So basically they were composers

JO: Do a screenshot of that for me Michelle [interruption]

JO It's the real world Michelle.

MICHELLE: [laughing] There we go so that was a really lovely example. So our music coordinator was delighted because she actually had some evidence of children composing their own music. Even though it was from only from down our end.

JO: But still yeah.

MICHELLE: So you can see there we tagged in both music and early years . I also have one call challenging provision. That's not tagged as anybody that's just for me. For the purpose if anyone asks me how do you challenge your children I can say let me show you.

JO: [laughing] Some thinking about what this is doing this. So with you using tapestry to talk to music coordinators. Tell me your motivation again in doing that.

MICHELLE: Your motivation towards out with to stop people coming up to me before Ofsted and asking what did you do in geography in early years and what are you doing in art in early years. So look don't ask me you can see it whatever time you want.

## Transcript 4 Twitter



Follow



Independent symmetrical patterns in our challenge area #maths #pattern #symmetry



8:47 PM - 26 Jun 2017

MICHELLE: Well our Twitter account came about, I'm just trying to think of what it was...it was about two and a half maybe three years ago. And it was a conversation with Margaret during my Performance Management. Really trying to get information out to parents. It was before we had Tapestry. It was my first sort of dabble in electronic information. So really the original idea behind our early years Twitter is that it would be a private Twitter for myself between us in school and the parents.

JO: So that's where it started off?

MICHELLE: That's where it started off. People had to ask at that point if they could follow us. And I used to say make sure it's clear from your name who you are It's no good you being called 'doctor vodka' [laughing]

MICHELLE: Because that's me [laughing] As I won't accept you. [laughing]

MICHELLE: Anyway so that's how it started and it worked very nicely like that for quite a while where people would send us pictures on Twitter. Things like our Beat Baby; he takes home Beat Baby. In those days they would tweet us pictures back as we didn't have Tapestry. So that's how it started off. Then we got Tapestry which kind of did that job, much better. So Tapestry took over that kind of information bit. So then it was a bit kind of defunct really [talking about the Twitter account]. So I said to Margaret, our School Twitter wasn't a private Twitter. So I said why don't we change it ['it' meaning the early years twitter previously discussed] and make it a public Twitter and use it in a different way. She was like, 'Yeah that's fine'. So we told parents it's going to be a public Twitter now. So if you want to get out then get out. But parents all signed for publicity anyway so that was fine there was no problem with that. So we started using it in a different way really because we were trying to get back on here to the days where it was just a private one.

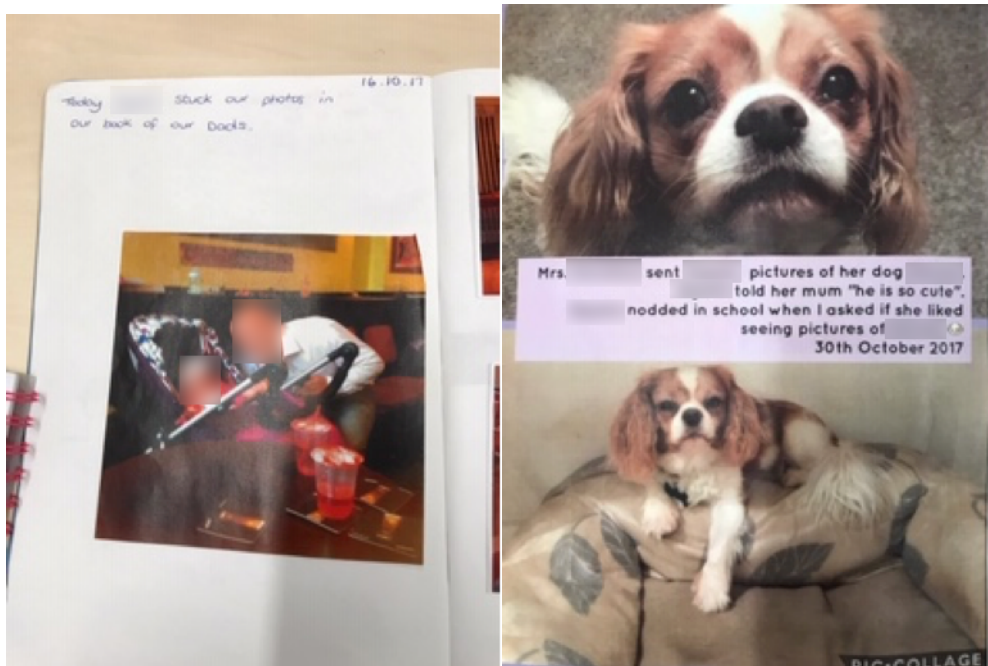
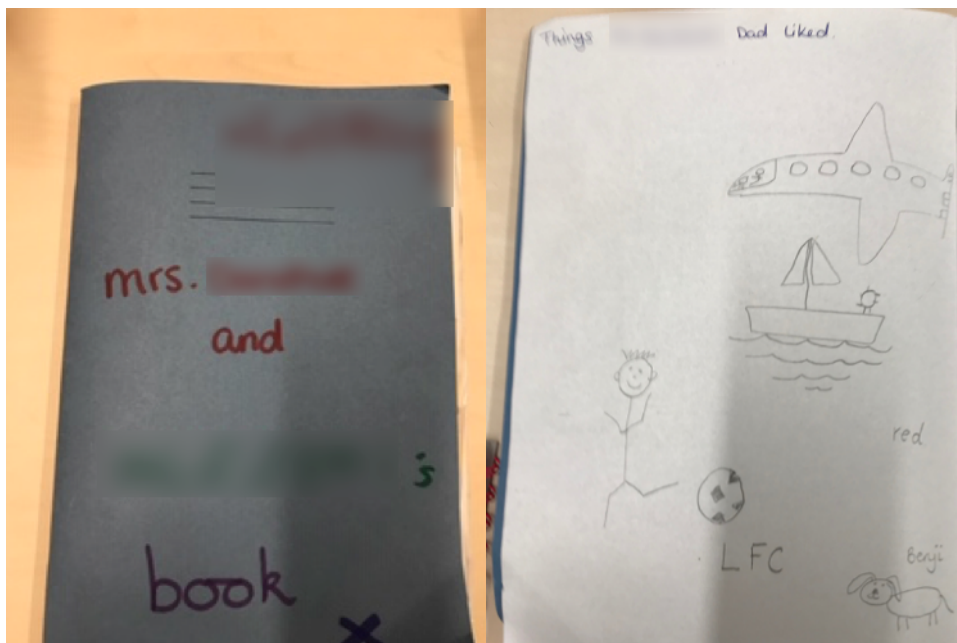
JO: Yeah that's alright.

MICHELLE: So by the time we got to this point we'd already started using it in that way. So I've printed off a little variety.

JO: So talk me through some ones that you think are particularly relevant.

MICHELLE: So this isn't like a standard one really with where I would tweet about what we had done in school that day. And I always try to get a little bit of learning into it a little hashtag to indicate what I think the important things that are going on here. So this isn't a particularly inspirational one it's just about the children making symmetrical patterns in a challenge area. But just as an example so here is some photographs of the children. We talked about it in a focus group, we talked about butterflies and patterns and this was just left out to let them make their own symmetrical patterns. So the tweet just says 'Independent symmetrical patterns in our challenge area #maths #pattern #symmetry'

## Transcript 5 One family's documentation over time



PATRICE: Okay so Isabella came to us in September from being in the nursery with Michelle...

JO: I remember.

PATRICE: ... found out that, obviously, her dad had passed away and she's had bereavement. She was quite a nervous, anxious child to begin with anyway but she went even more so, sort of, in herself

JO: When she came to you?

PATRICE: This is when she was with Michelle. So, we noticed that, and when she came up to me...

JO: So, you knew before she came, didn't you?

PATRICE: I only sort of knew the fact that she didn't communicate with adults and she just started – I think she spoke a word to one of the ladies who's a bit of a *nan figure* in the school to be fair. I think she felt comfortable with her, because it was once she slipped up and it was a bit of an *oh, what are you going to think about this?*

JO: I think I remember that, I think it was when, erm, she was looking at photographs of a – I can't remember what it was, now – but I think Michelle told me about that. It was unusual though, wasn't it, at the time I remember.

PATRICE: It was, yeah. She'd started to talk to her friends, very very quietly but without adults seeing. It was the friends that were telling us. So, she came up to me in September; no sort of eye contact, didn't really – kept in her own circle of friends, her own social group she had made friends with...

JO: So, she had a social group?

PATRICE: Two twins and a little girl who was very confident and, sort of, the mum of the group.

Jo: [laughing] yeah.

Patrice: The four of them have come together. We did notice straight away that the twins and the little girl who had this little *mum role* – sort of – left Isabella a little bit. Not intentionally, I think it was a case of the learning was developing, the language was developing, there was more to do, more challenges, and naturally she just sort of went without taking them with her. Because she wasn't speaking up, she felt a bit left out. So, straight away I wanted to address it with her. I didn't really know how to, sort of, break that, sort of, wall with adults, and she didn't want it to come down. I thought, obviously, I knew her dad had passed away and I wondered whether the fact that I had lost my dad might be an opener for her. So, I thought, *I'm going to give it a go*, and just see.



## Transcript 6 Walking around school space



JO: I'm interested in your thinking.

MARGARET: Okay so...[louder muffle returns] Originally it was designed as an assembly space.

JO: So a hall? Really that was going to be your hall?

MARGARET: [muffled talking as beginning to walk] But it just screamed out at me as an art space, a public area. I wanted it to have a special wow factor [walking down

stairs] And what we try to do is mirror whatever cultural events happen in the [names closest city] area. What it has developed into is this art exhibition type area. [walking down stairs]

JO: So a local city response?

MARGARET: [muffle continues] This is our Comic-Con. So when that exhibition was going on in our area, in [names closest city], the children came in in their own comic costumes we had our own day Comic-Con for the day. We did the same for the Remembrance Day stuff and made the red glass poppies. [children's voices]

JO: Oh yeah I think I saw that, I think I saw that when you had it up.

MARGARET: We then took the children to see the real one and then we created our own back in school. We used in that way to mirror those cultural events, to make them more aware. [muffle, childrens voices, staple gun] The other way we used it is [muffle]. We had things like whole school projects on immediate school locality, city region and then London. [muffle] so EYFS and Reception did the local community, KS2 went to London, so they did where they live.

JO: So you go, micro to macro. [laughs] I get ya.

MARGARET: [muffle,] The school sent to [names closest city], and KS2 went to London as well and they researched as buildings in their locality [children's voices] And from that staff were able to discover all these cultural things that children just didn't know. Children from Y3 and 4 didn't know you could get a ferry from [names closest city], and didn't know where it went [speaking very low] [children's voices, staplegun]

JO: Something so iconic.

MARGARET: So we took them all on the ferry.

JO: Of course you did.

MARGARET: So it makes that link which again I think is quite early years.

## Transcript 7 Walking around classroom space



JO: And also is there a bit of a rationale here for getting stuff for the display? [Walking towards wall pointing] Yeah that's part of the story.



PATRICE Yeah [muffles, walking] I want to show some of the work that the children had done and I wanted it up. You can look at this [pointing at work on wall] we can see what xxx had said [muffles, gestures around the room] When adults come in and have a talking point for the children straight away.

JO: I know what xxx has said now

PATRICE: If you saw them doing anything at a later date to this...and obviously it would be nice for when parents come in as they can [points to door, points to wall] they can see what they have said and done.

JO: It's a simple idea I love it's so simple. Simple and effective that's what it's all about.

PATRICE: This can get transferred to the rest of the school to see as well obviously we're proud of things that they say, as its getting staff upstairs to understand how much children do understand at this age.

JO: How important is it to you the other teachers appreciate that?

PATRICE: Extremely because I think sometimes in people's minds is this idea what early, they are only 3 they are only 4

JO: It's all played off [laughs]

PATRICE But it's fantastic with some of the things that they come out with. I remember when xxx, he's in year 2 now, we had a little maths enhancement area. And it was challenging for him just to do the number cards And putting them together to make addition and I had 50 too and he had to add 5 and straight away he was like 'Well hang on we're going to get the same answer' And I said 'how, how are we going to get the same answer?' And he said 'it's the same sum, but it's just different' And I agreed and I was like yeah but after that I was telling that maths teachers upstairs and they couldn't believe that he knew that at his age.

JO: A lot of older children haven't got that, And if you can do that I can do subtraction and that's a hard concept isn't it?