

## **'Beyond Representation: Exploring drawing as part of children's meaning-making'**

### **Abstract**

Drawing is an everyday feature of primary school classrooms. All too often however, its role within the classroom is limited to a 'representational' one, used to demonstrate the accuracy of children's images and representations of the world. Furthermore, drawings, which most closely 'match' objective, dominant perspectives are generally given greater value (Anning, 1999). Reflecting on the role of drawing in the classroom is particularly interesting at a time when there is increasing emphasis on 'evidenced-based' and research informed practice within schools (CERI, 2007). Such a policy context, which is primarily concerned with 'objective' forms of evidence, raises questions about a possible role for drawing to support a more nuanced understanding of learning processes, taking account of the uniquely contextualised experiences of the children. In response to this context, this paper reports on my engagement - as a Primary School teacher in Scotland - with a Participatory Action Research (PAR) project with children aged five to seven. The project enabled us to explore how drawing could support *our* own, collective meaning-making. The process involved employing walking and drawing as methods to open up rich linguistic spaces to enable the children to engage with and reflect on their *lived experiences* (Merleau-Ponty, 1945). The analysis of the drawings that were created surfaced many tensions within the Scottish education system as they were highlighted from the perspectives of the children. Such findings point to the need for more relational interpretation of 'evidence', arising from classroom actions and interactions, which include the perspectives of children.

**Key words:** *children's drawings, meaning-making, evidence, complexity, phenomenology,*

### **Introduction**

This paper, which advocates the use of drawing to support children's meaning-making, is being written at a particularly interesting time within education generally, and specifically within Scotland, where this research took place. This is the time dominated by calls for 'evidence' and 'evidenced-based' practice across education systems (CERI, 2007; SG, 2017). While connecting research and practice is a potentially rich proposition in terms of opening up possibilities for exploration and discussion around the complexities of learning and teaching, caution over: the nature of this 'evidence', the tools used to collect such evidence and the ends that this evidence serves, has to be exercised (Colucci-Gray and Darling-McQuistan, in press). The need for caution arises from the dominance of largely cognitively-orientated measures within educational contexts, which have almost become synonymous with the term 'evidence'. Such measures, however employed to generate numerical or 'big data', are focussed on comparing educational *outcomes* for accountability purposes (for example, TIMMS and PISA), with little or no connection with teachers and classrooms (Kennedy, 1999). Thus, a tension exists between the very nature of measurable outputs of schooling and nuanced, contextually-bound classroom activities.

This tension is further compiled for teachers in Scotland by the current Scottish curriculum, Curriculum for Excellence (CfE) (SE, 2004), which has been heavily critiqued for embodying such tensions within its confused and 'atheoretical' foundations (Priestley, 2011, p.227). CfE simultaneously seeks to embrace more dynamic and expansive approaches to learning and teaching, while also being confined by globalised ideas associated with outcomes, linear progression (Priestley and Humes, 2010) and more recently, 'gaps' in educational attainment (Sosu and Ellis, 2014). As will be discussed, the study presented here will reveal the tensions of these conflicting agendas from the perspectives of children, opening up discussion around how children construct their understandings of the world, starting from their own place in the world (Merleau-Ponty, 1945). In doing so, this research

proposes a way in which insights from visual culture (Kress and Van Leeuwen, 2006) and arts-based approaches (Eisner, 2008) can be used to create spaces which encourage the coming together of diverse perspectives within primary school classrooms in Scotland.

### **Purpose of the study**

Throughout this paper, I propose a role for drawing as part of classroom-based pedagogy as a means of creating rich and varied, contextually-bound ‘evidence’, which embodies and focuses on relationships with children, rather than emphasizing knowledge *gaps*. Challenging well-established representational ideologies, which are ingrained within curricular guidelines that attempt to reduce children’s broad, nuanced and contextualised educational experiences to standardised ‘outcomes’ (Traff-Prats and Woywod, 2013) therefore became the overarching purpose of this study. Critically, moving beyond such representational understandings is dependent upon engaging *with* children as *subjects* holding subjective perspectives, and who are capable of *creating* knowledge, as opposed to children as objects of study (James and Prout, 1997).

I will outline how the research emerged by first establishing the theoretical framework that enabled me to use walking and drawing as methods within a Participatory Action Research (PAR) approach, which I introduced and incited as both a class teacher and researcher, *with* five to seven year old children in my Primary 1/2 class in Scotland. The theoretical framework, which builds upon insights from complexity theory and phenomenology, establishes the central role languages, as embodied expressions of human relationships, play within relational and complex classroom systems. I will then elaborate on how I interpreted language, as a means of engaging with the diverse perspectives and factors that impacted on our collective meaning-making, to encompass ‘drawing’ and walking, with corresponding social, emotional and physical dimensions. Finally, I share the analysis of the empirical data

collected throughout the PAR process to add detail to this discussion and to sketch out an alternative view of ‘evidence’: a view which connects, rather than divides.

### **Complexity and phenomenology: developing a relational understanding**

It can be argued that both the current context of ‘evidence-informed’ practice, arising from large scale studies (Mullis *et al*, 2011), and the long standing ‘representational’ role of drawing in the classroom (Anning, 1999) have developed from positivist traditions due to the shared emphasis given to ‘objective’ truths. The limitations and critiques of this epistemological position, which seeks to ‘fill’ children with pre-established knowledge, are well-established, both in terms of educational research (Guba and Lincoln, 1994; Denzin and Giardina, 2009), as omitting the unique, subjective experience of children, and classroom practices (Dewey, 1938; Freire, 1996; Apple, 2006). Such insights motivated and guided me to explore a different paradigm of thought, turning away from the ‘representational’ to embrace a ‘relational’ view of knowing, from which to construct alternative understandings and possibilities for both research *and* classroom practice. This view would allow myself and the children to create ‘evidence’ that was deeply connected to our actions and interactions within a specific time and place. As I outline the theoretical framework that underpinned this study, I will make explicit and purposeful connections to the methods I used, to move from questions of knowledge (the ‘what’ of learning) to questions of value and methods (the ‘how’ and ‘is it worthy?’), blurring the lines between theory, research and practice.

In the first instance, developing the theoretical framework began by exploring complexity theory which, as originally outlined by Davis and Sumara (2008) is beginning to support *insights* within the social sciences, including education. The very nature of these ‘insights’, as opposed to ‘facts’ or ‘prescriptive’ approaches to teaching, are important as these insights

were not taken as hypothesis to test, but rather, as ideas for thinking with, supporting our collective inquiry and the development of this study. There are several key, interrelated insights from complexity theory, which enabled me to respond to my critiques of the systems and structures which were affecting my teaching practice. Firstly, complexity theory focuses on the inseparable relationship between our subjective human understandings and the objective world (Davis and Sumara, 2008). In this view, the very nature of purely ‘objective’ knowledge is being questioned, and in doing so, it disrupts authoritative forms of objective knowledge, which can dominate thinking (Jasanoff, 2004). In addition, a significant aspect of complexity theory is the possibility it offers to overcome objective/subjective dichotomies, by expanding the well-established acknowledgement of social and cultural contextual influences on learning as advocated by Vygotsky (1978) to include: physical, biological, and ecological influences (Cilliers, 2005). Such contextual factors are not only disregarded when discrete data sets are extracted and disseminated across education systems, but they are also limited by curricular guidelines which are focused upon standardised sets of outcomes (Ross and Mannion, 2012). As I will elaborate further through this study, I opened up the opportunity for the children to engage with their local context by walking with them in our local community. Becoming part of these rich and dynamic contextual factors impacted on our experiences and the nature of *meaningful* knowledge (Jananoff, 2010) we created. These inseparable contextual factors, which were reflected in the children’s drawings (as I will detail), allowed a new ‘text’ to emerge as part of rich interactions (Darling, 2015).

A further, important dimension derived from an understanding of complexity was the recognition of the increasingly active role of the children in their learning, which marked a significant shift in power relations during the course of study (Darling, 2015). Dislodging, or ‘*de-centralis[ing] control*’ (Davis and Sumatra, 2008, p.41) is a key aspect of complexity

theory, which is primarily concerned with engendering shared participation in decision making processes. The need for shared participation within complex systems is not only key to enabling more democratic and reciprocal relationships to unfold, but to the process of *collective* meaning-making, which is central to the on-going functioning and emergence of practice (Davis and Sumara, 2008).

Enacting the notions of de-centralised control and collective meaning making required further reflection on my own epistemological understandings and assumptions, moving from an idea of knowledge situated ‘inside the head’ to a view of knowledge as ‘distributed across human, spatial and embodied relationships’. Merleau-Ponty’s phenomenology played a fundamental role in supporting such reflection. As Anderson (2003) states, phenomenology places *experience*, rather than abstract logic, at the heart of thinking. Indeed, it is through its concern with our *embodied* experiences of the world and the phenomenon we encounter, that phenomenology gives value to our subjective understandings. This shift towards contextually-bound subjective experiences, not only links complexity theory and phenomenology, but values children’s *perceptions* of the world as a legitimate form of knowing, which is rooted in human experience.

Our perceptions of the world are composed of our ideas, experiences to date, interpretations and values (Alvesson and Sköldbberg, 2009). Furthermore, such perceptions are inherently relational, that is, changing and responding in response to our interactions and *reflections*. Matthews (2002) explains that from a phenomenological perspective, *reflection* is an active process concerned with inviting descriptions of the world as perceived by people (who are part of the reality they perceive), as a starting point for understanding the world in which we live. From such a perspective, the emphasis in the classroom moves from assessing the

accuracy of an individual child's acquisition of 'authoritative' knowledge, to engaging with children's lived and varied reflections as part of the world, in order to negotiate and create meanings.

These rich and complex theoretical insights, which legitimise children's perspectives, starting from their own place in the world, required a methodological approach, which would encourage the participation of all and the coming together of our rich and varied perspectives. Participatory Action Research (PAR), as an overarching methodological approach, within which we explored walking and drawing as methods, allowed me to respond to this theoretical shift. As Kincheloe (2009) explains PAR methodology actively seeks to engage children, as competent social actors, in the processes of reflection and action. Employing a PAR methodology therefore allowed me to engage with the children's reflections, alongside my own critical observations, in order to engender change based on the evidence we created.

In this process, relationships and the role of language came to the fore, as a means of connecting us and our unique and shared perceptions of the world. This conception of language, however felt strangely unfamiliar to me as a teacher: up until this point, language was primarily a tool to convey knowledge, instructions, and expectations (Darling, 2015).

### **Engaging with perceptions: the role of languages in complex systems**

Exploring language, as both a meaning-making tool and a means of supporting shared participation within our classroom, was critical to the unfolding research process. Camino, Dodman and Benessia (2009) explain that language is central to our knowledge construction and is therefore intrinsically linked to our 'being' and 'action'. The idea that language is linked to being and action, is derived from the influential work of Michael Halliday, who

created a framework of language functions (*ideational, interpersonal and textual*) to reflect the multiple-purposes language serves within society.

Halliday (1973) describes the *ideational* function as ‘*representational*’ (ibid, p.105). It is important to clarify, however that the term ‘representational’ is not used by Halliday to describe fixed internal views of an external world. Conversely, the *ideational function* allows us to communicate our ‘current’ understandings of the world and crucially, through the process of articulating understandings, new understandings and languages can arise (Camino, Dodman and Benessia, 2009). Meanwhile, the related *interpersonal function* is concerned with the relationship between speaker and listener. Halliday (1973) believes that language connects us as human beings, supporting our emerging identities (our being) and informing our actions. Both the interpersonal and ideational functions are dependent upon the *textual function*. Halliday (1973) states that it is through the internal *textual function* of language that language connects to the context within which it is used.

So, understanding language as an intrinsic part of a complex system which, both informs and is informed by evolving ideas, actions and events has significant connotations for the teaching profession. Developing awareness of the ways in which children *use* and *create* language as part of their on-going learning, and in turn, understanding how language supports that learning process, is critical to informing pedagogical insights, particularly as children negotiate and build meaning together at a collective level (Camino, Dodman and Benessia, 2009).

This understanding of the complexity of language and its role in meaning-making, coupled with my determination to support the children in my class in taking on an active role in our

research and their learning through our PAR, encouraged me to explore how I might engage with a more complex view of language within my classroom practice. From this perspective, I started exploring conceptions of ‘pupil voice’, a classroom-based method designed to empower learners through their participation in decision-making processes (Whitty and Wisby, 2007). However, in light of the insights gained from complexity theory and Halliday’s layered account of language, such initial approaches soon proved to have limited scope within the context of this study. Critiques of pupil voice methodology and their restricted focus on verbal communication in formal contexts supported me in strengthening my design and expanding my own perceptions of pupil voice to embrace a more complex view. Michael Fielding (2004), for example, strongly critiques the practice of speaking on behalf of children as a dangerous activity, which has the potential to perpetuate ‘...*historically located structures and relations of power.*’ (ibid, p.30).

In addition, considering historically constructed ideas of the position of children in society and relative value of their voices, Jackson and Mazzei (2009) cautioned the use of ‘voice’ from a methodological perspective. They challenge the assumption that: ‘*voice is present, stable – there to be searched for*’ (ibid, p.2). In line with complex thought, Mazzei (2009) takes the perspective that voice is as a continually changing, incomplete phenomenon. Such critical insights only heighten the need to ensure that contextual factors, including the negotiations between varied and multiple voices (Golafshani, 2003), are kept intact at stages of the research process, aligning this interpretation of ‘voice’ methodology with key insights from complexity theory (Cilliers, 2005).

Adding to the need to ensure that the context in which voices are spoken and heard is reflected as part of what is said, Hart (2002) and Mazzei (2009) both recognise that voices can be expressed through other forms of communication, such as the arts. Lewis and Porter (2007) concur, stating that too much focus is given to the verbal ‘voice’ and ask how children

who have limited or no verbal communication might participate in research processes and classroom practices: children require multiple modes of communication and expression (Kress, 2000).

### **From oral to visual literacies**

Drawing, as an art form and form of visual culture, offers one embodied tool through which children's phenomenological reflections can be explored. As I articulate the role drawing can play in research, I aim to capture the richness of this approach, which has been receiving increased attention in recent years.

Eisner (2008) suggests that through the arts, it is not only possible to communicate feelings and emotions, but knowledge: knowledge(s), which cannot always be reduced into words and sentences for logical communication to others. Through art, ways of knowing and feeling can be expressed, provoking understanding in those who share in the art. Thus, the arts can be employed as a rich and evocative research tool: a major shift from broad, generalisable data.

In terms of the technicalities involved in creating an art piece through a chosen medium, McNiff (2008) explains that limited artistic experience, which may be true for some children as it is adults, can impact positively on the research practice. Mistakes and lack of technical accuracy can add to the richness of a drawing. In this vein, Eisner (2008) suggests that the arts do not provide clear, unquestionable answers, but create opportunities for rich, intricate conversations that centre round the '*complex subtleties*' (ibid, p.7) of people's subjective perceptions of the world.

The justification for employing drawing in this study was also strengthened by its embodied nature: further building on phenomenological insights. Drawing offers a way through which, thinking and bodily action become interwoven in a dynamic moment of expression.

Schneckloth (2008) explains that drawing brings together the physical impulsive gesture of the body, with the conscious intentionality of making meaning within this act:

*'In a drawing, I express a moment marked by a polyvalent connection between seeing, moving and making....a conversation of marks unfolds more over time.'* (ibid, p.278).

Recognition of the interactive, connected and time-bound nature of drawing, further aligns it with complex theoretical position, from which this study has emerged.

### **Enacting theory in practice**

Throughout the discussion conducted so far, I have purposefully made explicit links between theory and practice, in order to outline the ways in which I enacted rich theoretical insights, engaging with questions of methods, value and purpose. At this juncture it is thus useful to outline the methodological approach in more detail.

As I have suggested, the children and I employed PAR as an overarching methodology. PAR invites participants into a process of critical reflection, with the central aim of empowering participants by acting upon and responding to communal perceptions and experiences (Kincheloe, 2009). PAR methodology also offers flexibility in relation to the range of methods that can be employed as part of the process (McIntyre, 2008). As I have detailed, in order to engage with the children's *lived experiences* (Merleau-Ponty, 1945), I employed walking to allow the children to physically interact with their world and the layers of social, cultural, historical and physical meaning that shape their world (Davis and Sumara, 2006). Alongside walking, I also employed drawing as a language and knowledge creation tool to

support the children in expressing their phenomenological reflections as part of the world, starting from their particular position in the world. Along with the drawings, I also collected audio data from our walks and discussions and kept a reflective diary, which captured my own personal perceptions and experiences. All the data collected as part of the study was analysed as a whole (Darling, 2015), in order to ensure the unfolding narrative and emerging themes were contextually bound (Riessman, 2008). For the purposes of this paper, I will direct my focus to the distinct contribution that drawing made to the study, by first outlining how I analysed the drawings, then by identifying the role they played in enabling our on-going meaning-making as part of the PAR.

### **Exploring an analytical framework for meaning-making**

For Eisner (2008), the role of the researcher is to ‘*qualify qualities*’ (ibid, p.7) of drawings and as such I had to explore how I was going to engage in this process. Traditionally, drawings have been analysed as isolated and disconnected ‘objects’ for psychoanalysis. Anning and Ring (2004) however, mark the shift towards understanding children’s drawings in relation to their social and cultural contexts. In line with the shift, Kress and Van Leeuwen (2006) applied Halliday’s (1973) linguistic framework, which not only forefronts the role of context within visual semiotics, but provides a vocabulary to understand visual images as part of wider social actions and interactions.

Within the context of this study, specific aspects of Kress and Van Leeuwen’s (2006) interpretation of Halliday’s framework were particularly relevant. Firstly, in terms of the *ideational* function, they suggest that power relations can be communicated through the relational position and status of figures within a drawing (see Figure 1). Analysing this drawing, which was created in response to the question ‘What is learning?’ asked at the

beginning of the PAR process to encourage the children to reflect critically on the nature of learning within our classroom, in turn enabled me to reflect critically on my role and position as ‘teacher’:

*“The drawing...represents me, the teacher, sitting on my turquoise chair ‘learning’ the three figures...sitting on the blue carpet, in a lower subordinated position (Kress and Van Leeuwen, 2006). Despite conscious attempts not to use the ‘teacher chair’, my position on it is very significant within this drawing. I am disconnected from the children, suggesting that we have separate and distinct roles.” (Darling, 2015, p.186).*

<<FIGURE 1>>

In this instance, the *interpersonal* function of language was leveraged to reveal how communication and relationships with children were mediated through bodily and ‘architectural’ factors (such as the height and colour of the chair). The analysis of the drawing was thus pointing to my concern with the relationships between myself and the children (Kress and Van Leeuwen, 2006). In relation to Figure 1, this particular analytical lens opened up many questions relating to this particular child’s relationship with me as her teacher, including questions around the type of drawing she might have anticipated that I would have liked to have seen, or not. While I will never know the answer to these questions, what can be said that her drawing had a profound impact on me as her teacher and my own perceptions of the relationships I had with the children in my class: did the children feel their place was on the mat, sitting, waiting to be ‘*learn*’ed? And how did I come to assume this natural position and role?

Engagement with such questions was supported by giving consideration to the *textual* function, which is concerned with the meaning of the visual image within a specific context, mirroring Halliday’s original use of the term (Kress and Van Leeuwen, 2006). While the composition of Figure 1 made for uncomfortable viewing in terms of how I would have liked my role to be perceived by children, when I reflected on it in relation to the themes that had

emerged within my diary, the distinct roles and relationship captured in this drawing were in alignment with my own perceptions. So yes, the children did most likely feel that their ‘place’ was the carpet, where they sat, waiting to be *‘learn’ed*, as Mazzei (2009) would have argued in relation to the historical positioning of children as ‘knower’ with lower status.

### **A role for drawing: analysis and discussion**

By briefly illustrating the analysis I undertook, the role the drawings played within the context of the PAR begins to become apparent. ‘Drawing’ was not employed as a way to fulfil ‘representational’ ideologies, which would provide an insight into individual children’s conceptual understandings of different phenomena. Instead, drawing was employed to support on-going meaning-making and critical reflection, with the overarching aim of supporting change in practice.

The drawings created a result of our initial ‘What is learning?’ dialogue, revealed the prevalence of abstract disembodied learning as expressed in Figure 1 and many of the other children’s drawings (Darling, 2015). Walking therefore became a pivotal methodology within the context of our PAR. By introducing walking, the children had the opportunity become entangled in an embodied exploration of rust: a naturally occurring phenomenon that was prevalent in our local community (Darling, 2015). Within this context, drawing played a critical role in allowing the children to communicate the richness of their experiences and phenomenological reflections on their experiences of rust.

As I will elaborate, both the process of drawing and the drawings themselves brought key insights to the fore: the place and value of drawing in our classroom; the need to engage with perspectives that do not match ‘dominant’ world views and the spatial and non-sequential

affordances of drawing. Each of these insights is underpinned by the role of drawing played in fuelling our on-going, meaning-making activities.

The lack of authority drawing possesses within classrooms, in comparison to writing and other literacies is discussed by Anning (1999), as well as Kress and Van Leeuwen (2006). Interestingly, this theme also emerged as part of our research, particularly at the start of the process (See Figure. 1). Although the child who created Figure.1 included a drawn element on the page (which was more than many other children, who chose to respond to this question using only numerical notations), an analysis of this drawing through a *textual* lens suggests that much greater precedence is given to the written component of her response. This analysis caused me to reflect on how I value drawing within the classroom: an afterthought, something to fill time, once the ‘learning’ is done.

This reflection was compounded further when, at the same point in the research process, another child stated: ‘*You don’t need colours you only need writing pencils*’ (Darling, 2015, p.187) when discussing what to do with a friend. This statement suggests that colouring pencils were not a valued part of our everyday classroom culture. This insight brought many questions to the fore regarding the extent to which the children were allowed to bring their colourful worlds and cultures into the classroom. Was the prevalence of ‘writing pencils’ over ‘colours’ limiting the children’s avenues for participation and richness of their voices within our classroom context?

As the PAR process unfolded and we began to address some of the practices that seemed to separate our classroom culture from the children’s lived experiences, the role of drawings began to take on a new and more nuanced role. Figure 2, for example, was created when we

as a class were engaged in reflecting on the nature and properties of the rust we had encountered while walking.

<<Figure 2>>

This drawing, which may appear to be a simple brown box, is actually a very rusty van, drawn from an aerial perspective. This drawing gave a rich insight into the creator's perception of rust within the context of our PAR activity. This child made a connection between the exposed roof of the van and its likeliness to rust. It could have been very easy for me, as an adult, with expectations about the appearance of vans (Anning, 1999), to disregard the drawing as a 'lazy' engagement with my invitation to reflect on his experience of rust at this point of the PAR. However the unique perspective communicated within this drawing, encouraged me to reflect on the '*affordances*' (Kress, 2000, p.339) of drawings. Critically, as Kress (2000) suggests, through the act of drawing children do not simply 'reproduce' what they have seen, but *transform* it, allowing them to represent something of themselves, which is exactly what the creator of Figure 2 did.

Kress (2000) also suggests that drawings need to be understood as '*spatial and non-sequential*', and are fundamentally different from oral and written literacies which are '*temporal and sequential*' (ibid, p.339). The '*spatial*' nature of drawings removes the demand to organise thinking in a logical, objective sequence. The experience being reflected on can therefore be communicated as a rich whole. This affordance allowed the spatial and relational nature of the children's engagement with rust to be communicated through their drawings (see Figure 3).

<<Figure 3>>

This child has not simply drawn a rusty railing, but has captured the railing in relation to physical elements, including people and precipitation, which all come together in a singular moment. And as the child stated when I asked him to share his thoughts on rust with me verbally, prior to starting his drawing:

*“Mines is like...*

*(3 second pause)*

*I’ll need to draw it first.”*

alluring to the connection between drawing and meaning-making processes, as well as the shift in culture that was taking place in our classroom (Darling, 2015, p.253).

The analysis of Figures 2 and 3, together with the other children’s drawings, inspired a dynamic conversation centring on the question ‘what is rust?’. The interaction of the children’s drawings and our continually evolving perceptions, as our drawings, reflections and texts came together, resulted in us planning further explorations that would allow us to collectively build further understandings of the connection between precipitation, metal and the rusting process (Darling, 2015). Within this conversation, the children’s drawings played a pivotal role in supporting our on-going meaning-making by bringing together our individual reflections (Davis and Sumara, 2006) and providing a stimulus for our discussion. Kress (2000) describes this as a process of ‘*making new*’, emphasising the transformative possibilities of drawing enabled through the coming together of the ‘objective’ (the rust) with personal ideas, insights and reflections (Merleau-Ponty, 1945).

## **Conclusion**

Within the context of this study, drawing played a key role in enabling shared and ongoing meaning making. Contrary to more traditional classroom pedagogies, the drawings were not individually ‘assessed’ as a way to ‘judge’ each child’s conceptual understandings (i.e. of rust), but instead they were utilized to move our collective thinking forward (Davis and Sumara, 2008) and *create* evidence together, that would directly impact on classroom pedagogies. Both the embodied and spatial quality of drawing allowed the children to actively create and communicate their phenomenological reflections. Furthermore, through the numerous possibilities afforded by the paper and pencils (of all colours), children were given space to bring themselves into the drawing process, revealing their perceptions: their relationships with, and experiences of place from which they approached rust and the rusting process that we had come to know. This process of knowing through drawing, not only transformed the blank pages we drew upon, but the children themselves (Kress, 2000) as we made meaning together.

Throughout this process I, as teacher and researcher was engaged in a meaning-making research process *with* the children, connected to their experiences and sharing in their horizons. This is why each drawing, each piece of evidence created, had (and has) meaning for me and played a key role in our collective learning and critical reflections on classroom practice. It is important to state that the nature of the evidence created throughout this study did not provide me with clear, unambiguous ‘truths’ (Mazzei, 2009), which clearly directed my practice, instead the evidence - the drawings, which I was deeply connected to - raised questions by creating a rich and meaningful avenue through which the children could also pose questions. Questions about our relationships, the nature of their classroom experiences, curricular content and the very essence of knowledge. The rich, textured quality of each drawing created impacted on my role as the class teacher and my relationship with the

children in the class. Within the context of this study, the drawings therefore played a pivotal role in transforming practice.

Naturally, this experience has in turn encouraged me to ask questions of the nature of evidence being sought within educational systems and has led me to suggest that more contextually-bound interpretation of evidence, created with children, may inspire more transformative classroom practices.

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