Understanding The Contribution Of Visual Methods To Early Childhood Research: A Cross-cultural Investigation

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Research in education has previously been dominated by what Law (2007) terms the “hygienic forms” (p. 33). Hygienic forms apply to positivistic quantitative traditions which claim supremacy over other forms of knowing. In this methodological paper we report on a phenomenon auto-driven visual elicitation approach of an on going research which attempts to make sense of how children (3-5 year olds) in cross-cultural settings understand risk and safety situations in their settings. We reflect on the concern for contextual reflexivity, emanating from the notion that research activity in early childhood education is “in danger of succumbing to political ideology and methodological fashion” (Prosser & Loxley, 2007, p. 1). We argue that research into early childhood education needs to acknowledge the implicit tensions between conventional empirical research and the politics of research methodology and that researchers cannot bring to the fore everything that is there to be known about child development and learning through orthodox mechanistic means. There are quotidian aspects of children's experiences, development and learning which can best be captured by visual methods that combine other approaches like interviews and observations. The paper concludes with some reflections on the ethical dilemmas and validity issues that confront the researcher when the visual and digital are used across cultures with children.

Keywords: Visual Methods, Early Childhood, Cross-Cultural
INTRODUCTION

Twenty first century educational researchers are confronted with various ethical and political dilemmas, and tensions in conducting research outside positivist domains (Law, 2007). In recognition of this post-positivist research becomes a dicey endeavour to the extent that it is critically important for post-positivists to enact strategies that maximize funding, acceptance and benefits without compromising the standards of the research process. There are multiple vested interests in educational research, stemming from plural values. These multiple values and vested interests account for what kinds of knowledge production are valid, accepted and funded. Most government research funding agencies look for hard evidence in the form of figures upon which they make policy decisions, yet not all educational research and problems can yield figures. It is therefore a challenge to educational researchers regarding how to conduct and communicate research findings outside paradigmatic and hegemonic boundaries (Law, 2007).

Research in early childhood for years adopted positivistic perspectives and methodologies to make sense of how children develop and learn. One critical element of positivistic war against qualitative research is the issue of validity (Gay, Mills, & Airasian, 2009). For positivism truth could be seen for what it was and it mattered not where you stood. However, positivism has very little to tell us about what children are really like in relation to their lived experiences in their natural learning environment. The positivistic perspective in research is overriding, and until recently, with the emergence of interpretivism, unquestioned, scientific hegemony (Law, 2007). Interpretivism or post-positivism does not seek to reject positivism or quantitative manipulations but rather consider it as part of the truth (Gay, Mills, & Airasian, 2009).

Scientific endeavours, be it positivist or interpretivist, are not value free. People make science and both the science maker and the science he/she makes is shaped by the culture in which it was made. Dubois (1979) argues, “social scientists are certainly no more able than others to pursue inquiry free of the assumptions and values of their own societies” (p. 105). Arguably, therefore, our beliefs influence our understanding of reality and of children and the way we gather and interpret information about them. Science and scientific production about children tend to serve and reinforce dominant social values and conceptions of reality than they serve to challenge them. The history of social science theory on children tends to ignore theoretical pluralism, yet children's culture and their very nature is pluralistic.

We believe that all researchers whether positivist or interpretivist are story tellers, and in telling our stories we try to present the facts in the story so that others can replicate or reason with us. We may not be able to tell the whole story explicitly and accurately whether we adopt quantitative or qualitative
procedures. The question that follows is: How then do we tell the validity of our research? For Lather (1994), research must attempt to critique, transgress and extend the limits of possibility. And if we want to engage in good research then our research should be aimed at transforming both the researcher and the participant. As researchers, we act like sojourners who carry with us stories of different kinds, and our stories depend on our theoretical and practical territories we are familiar with. Kvale (1996) and Shotter (1994) support this notion that research is more a describing of a traveller's account than the production of absolute truth. Williams (1995) maintained that:

The Storyteller never wholly belongs to himself or herself. The Storyteller is one who sacrifices everything in the telling and retellings of the stories belonging to the tribe...Whether the story gets the “facts” right is really not all that important...(the) Storyteller is much more interested in the “truth” contained in the story. And a great Storyteller always makes that truth in the story fit the needs of the moment (Williams, 1995, XIXII).

We therefore argue that there is no single research approach that produces absolute reality. Also, there is no endless truth, for what is true today fits only the moment, and could be invalidated by tomorrow's truth. Positivist researchers turn data into numbers by imposing structure of the number system on the data (Punch, 1999). Similarly, interpretivist researchers also impose structure on words using their theoretical or valued positions. The structures that both quantitative and qualitative researchers impose on their data are socially constructed (Onwuogbuzie & Leech, 2006). Therefore, educational researchers need to map out research trajectories that fit to the problem of study. Policy actors and 'theoretical capitalists' must also pay attention to different modes of knowledge production, theory and methodology.

With this in mind, in this paper we report on the potential use of the visual to make sense of children's understanding of risk and safety in two pre-school settings. Our approach is located in interpretivist perspective. The paper reflects concern for contextual reflexivity emanating from the notion that research activity in education should no longer be “succumbing to political ideology and methodological fashion” (Prosser & Loxley, 2007, p. 1) and that research into early childhood education should acknowledge the implicit tensions between conventional empirical research and the politics of research methodology to help them improve upon methods and practice.

As we seek to know about how children perceive safe and unsafe situations it is impossible to bring into presence through orthodox mechanistic means, everything that is there to be discovered about child perception of risk and safety. Children have lived their own lives and experiences, which only those who experience it could, tell the tacit stories. Some aspects of children's
cultures and how they develop and learn about safety are difficult to capture into absolute figures and sometimes, even words and these aspects need to be captured by methods that look untidy and unconventional. This paper maps out a process for how visual approach can be used concurrently with interviews with children and teachers in early childhood settings to make sense of children's understanding of safe and unsafe places and situations. The paper is an outcome of an ongoing research that utilizes visual approaches with other qualitative processes such as interviews and participant observation.

**SETTING THE SCENE**

The main purpose of this research is to make sense of how children in two different (cross-cultural) settings perceive risk and safety situations. Our interest in this research emanated from a course unit on health and safety which we taught in the second semester of 2011 in the Department of Early Childhood, Faculty of Education at Monash University. The course unit covered core areas such as common childhood injuries in care centres and homes, common childhood diseases, nutrition, and health and safety regulatory frameworks. The purpose of the unit is to enable early childhood practitioners develop the necessary skills and dispositions in order to ensure the safety, health and wellbeing of children under their care. It is also to assist children form the necessary habits and concepts and become monitors of their own safety. This is consistent with the Department of Education and Early Childhood Development's commitment to providing safe, secure and stimulating environments for all children. Early learning centres are significant spaces for children to develop and learn, yet can sometimes, pose enormous risk and safety situations if not well managed. It is recognised that safe schools are effective school. In safe schools children enjoy play and various activities without fear and unnecessary interruptions. In unsafe schools, activities children appreciate and enjoy are short-lived as they are disengaged by carers and teachers for fear that the children may be injured.

The constructs of safety, risk and teacher–child social relations (how sensitive and responsive to children in their care even when the children provoke anger and neglect) are important factors for consideration in early childhood practice. Therefore, providing time and space for children and teachers to talk about such issues in the classroom is significant for improving health, safety and development of children. The main objective of this study is to gain sense of young children's notion of safety and risk, welcoming and unwelcoming places in a phenomenon visual photo project.

Participatory visual research methods in schools in which children take the visual images concurs with the notion of closer engagement providing agency and voice to children and bridging the ethical gap. When combined with other
qualitative methods it provides richness and diversity of data. The method for
the study was qualitative, including participant observation of how teachers
are sensitive and responsive to children in their care even when the children
provoke anger and neglect, how they resolve conflict among children, and
manage challenging behaviours. The children took photos of places they
consider safe, unsafe or feel at risk, welcoming/unwelcoming, comfortable or
uncomfortable in and around their school. Unstructured interviews were
conducted with teachers on what they considered as safe, unsafe and risky
places and practices in their centres.

The data sources included the visual images children produced, digitised
voice recordings of children's discussions of the images they produced,
conversation with teachers on safety and risk, and observation notes. The
research process itself was messy but was based on the theoretical notion that
learning is a process “of transformation of participation itself, arguing that how
people develop is a function of their transforming roles and understanding in
the activities in which they participate” (p. 209). This paper reports the
methodological issues of the research. The results will be reported in another
paper.

SITUATING THE VISUAL METHODOLOGY

Previous research studies, particularly those within the modernist tradition
have discussed children as tabula rasa fragile and immature, negating their
agency. A plethora of early childhood research studies adopt observation,
checklists, and development indexes to rate children's understanding of risk
and safety. Currently, a number of researchers have resorted to the use of the
visual (digital photography, drawings and videos) to gain further
understanding of children's development and their perception of risk and
safety. Visual research involves the production, organisation and making
sense of visual imagery (Prosser, 2007), which is rooted in sociology,
psychology, media studies and ethnography. Although some quantitative
researchers attack qualitative research severely and that they are too subjective
and validity deficient; scholars in the feminist, post-structuralism and queer
thorists' traditions have recognised the subjective nature of all research. In
Chaplin's (1994) view any research methodology whether it involves
photographs or not is constructed. As an iota of subjectivity is present in every
research, researchers argue for reflexive approaches while at the same time
being conscious to identify and account for biases wherever they arise
(Packard, 2008). This new thinking has given rise to methods that have been
criticised by positivists as lacking objectivity and empirical basis.

Stanczak (2007) argues “images are not merely appendages to the research
but rather inseparable components to learning about our social worlds” (p.3).
Several limitations are associated with studies of children. Most studies describe children by providing researcher found opinions and others provide account of children in the aggregate and the effects of independent variables in relation to outcomes of children's experiences. Still, some studies concentrate on motherhood, diversity and multiculturalism, welfare systems and policy issues and ignore children's own experiences. Indeed, to capture the quotidian aspects of children's understanding of risk and safety and to provide multidimensional perspectives of early childhood practice, one needs to adopt a messy research approach (Law, 2007). This requires re-theorising of children as active participants in society who shape, create and constantly negotiate their childhood experiences in early childhood settings. Visual methodology, applying photo elicitation technique (photos are used as discussant) allows researchers to explore and better understand the rhizomatic and textured lives of children. Harper (2002) reiterates that photo elicitation can “mine deeper shafts into a different part of human consciousness than do words-alone interviews” (p. 23).

A variety of approaches are open to be used in photo interviews. The approach in which the researcher takes the photographs allows for selection, organisation, framing and presentation of photographs to participants based on predetermined research questions. Although we found this approach appealing and convenient because it would help us focus on key research questions, we were guided by the notion that:

...photo elicitation in which the researcher makes the images may be limited by the researcher's interests and miss an essential aspect of the research setting that is meaningful to the participants...in addition to intrinsic biases of research questions and ...the tendency to capture the visually arresting images (Stanczak, 2007, p. 171).

In real life situations children do not borrow adult eyes to see or their ears to hear. They make sense of the world with their own senses. Therefore we argue that participatory visual research methods in schools in which children take the visual images concurs with the notion of closer engagement providing agency and voice, allowing them to use their own senses (Moss, Deppeler & Agbenyega, 2008; Prosser & Loxley, 2007). When combined with other qualitative methods photo elicitation provides richness and diversity of data. In this study I asked the child participants (children 3 and 5 year olds) to take their own photos to be used as discussants. This is what referred to as an auto-driven photo elicitation approach. It was conducted without structured complex interviews but rather the photographs provided stimuli for dialectical conversation and sharing of ideas and insights in which the levels of children's cognitive development are matched with the kinds of information they provided through discussion of their photographs. The process led to uncovering of learning and non-learning spaces that the children love to play
or learn while disengaging from other spaces and activities because they considered those spaces unsafe i.e. for bullying, scary, risky, smelly, contagious and unattractive) which adults such as teachers and researchers might have overlooked.

One important realisation for adopting this methodology is that traditional positivistic methodologies certainly, do not give space to children's voices or their individual needs, whereas visual approaches that combine other qualitative approaches, find spaces and invite children to become co-constructors of knowledge. This implies that research should be a process of shared experience to creating realities of our world as Abram (1996) writes:

_The 'real world' in which we find ourselves, then - the very world our science strives to fathom - is not a sheer 'object', not a fixed and finished 'datum' from which all subjects and subjective qualities could be paired away, but is rather an intertwined matrix of sensations and perceptions, collective field of experience lived through many different angles (p. 39)._  

Using photo elicitation research methodology in early childhood settings allows children to demonstrate and talk about aspects of their lives, learning and development that might otherwise be hidden from adult researchers (Clark-Ibanez, 2007). With this in mind we approached the research field with the view that children are active, creative and important contributors to knowledge and not as consumers of processed and packaged knowledge.

**How We Approached The Study**

We conducted this study in one Melbourne childcare and one Ghanaian preschool. To begin with, formal letters accompanied with explanatory statements and consent forms were sent through the childcare directors to parents. In all, parents signed consent forms for 24 children (mean age= 4.5 years) from the Australian centre and 30 children from the Ghanaian centre (Mean age= 4.8 years) who participated in the study. The children in each site were asked to select a partner thus there were 12 groups and 15 groups from the Australian site and the Ghanaian site respectively. Each group was briefed on how to handle the cameras and asked to take situational photos that represent places they feel safe or unsafe, welcoming or unwelcoming activities, risky but interesting places and places they liked or disliked. The activities take five learning days for children to complete in both centres at different times. The child researchers in the Australian centre produced 150 photos while their Ghanaian counterparts produced 96 photos. While the children took the photographs each shot was numbered and assigned to the photographers who took them. As the children took the photographs in pairs they talked to their partners and a member of staff recorded their conversations on a digital voice recorder. At the end of photographing the images were printed out. The
children were then divided into two and three groups for the Australian and the Ghanaian setting respectively to engage in visual elicitation. The photos serve as prompts for discussion for children during which time their views and dialogues were digitised on a voice recorder and later transcribed.

**CONFRONTING ISSUES OF VALIDITY**

To ensure validity we ensured that the qualitative data accurately gauge what we were trying to find out (Gay, Mills, & Airasian, 2009) and also by developing a sound empirical validity argument to support the intended interpretation and proposed use of the images. It is argued that the “camera and positivism emerged together” (Berger & Mohr, 1982 in Stanczak, 2007, p. 4) and visual images and theoretical epistemology are inextricably link. What counts as the truth can be determined empirically from objective facts observed in the world, and that the attainment of certain social processes and outcomes results from organized documentation of these facts. If research is a creative work undertaken on a systematic basis in order to increase the stock of knowledge (Gay, Mills, & Airasian, 2009) then organised documentation and analysis of visual images underpinned by theory validates this research.

Further, the camera occupies a very strategic position in Western science, such as medical imaging, forensic science and legal advances and claims. Similarly, visual research holds promise for studies in poverty and homelessness, disability and equity issues, child maltreatment, educational practice and child development and learning. Therefore the validity of visual approach is implicit in its closeness to the lived experiences of a particular phenomenon. Again, concerning validity issues in this research, we treated the image data as exactly the way we would treat quantitative data. That is, we did not assume infallibility status for data or taken the images children produced as the absolute truth or reality. They were representations at critical moments with varying contextual interpretations. Our intension was not to discover the objective truth but to problematize child development and learning and to provide space and voice, to enact textured meaning into how children experience life in their centres as they engage with teachers, play ground and culturally constructed spaces. It was not easy to quantify error in the images that children produced like in quantitative approaches. To narrow the error margin we approached the images as representations of the children's technical ability and aesthetic appreciation, which have multiple meanings. We also conducted 'visual cross examination' in which children were engaged to talk about the same images on different days. The transcribed conversations were compared to the initial conversations that occurred while they took the photos, for themes to emerge.
Other strategies employed to ensure validity was prolonged use of participation at the study site, establishment of referential adequacy; that is ensuring that data analysis and interpretation accurately reflect the photographs and children and teachers' voices, as well as reflexivity. We also established an audit trail in which the research assistant and a member of the child care teaching staff were actively involved in examining the process of data collection, analysis and interpretation (Gay, Mills & Airasian, 2009).

**Concerns And Ethical Dilemmas**

We were confronted with various concerns and ethical issues in the production of this research knowledge. Research should not be conducted for academic purposes only. Sometimes researchers collect data just to find out that the data they have collected are redundant and not useful. Such data are discarded. Such an activity is unethical because it wastes the time participants were involved in the research process. It is therefore important that researchers become aware of this and to make conscious efforts to determine what data they will collect and what use they will make of those data. We were confronted with the issue of what the photographs to be taken by children can provide in this research space. Could the same information we were seeking not be provided or sourced through observation, questionnaire to teachers and interviews? We were also bothered by the following issues. How would the children distinguish between good (ethical) and bad (unethical) photos? How would we prevent children for whom consent has not been granted from appearing in the photos that are taken? How would we prevent others who did not give consent from viewing the photographs during photo elicitation interviews? The same issues were raised at a meeting with Monash University Ethics Committee for Research Involving Humans.

As a result of the cross-cultural (Australia and Ghana) nature of the research site, we were confronted with the issue where sending a digital camera across space exemplifies colonial artefact, as well as the complex social and intercultural unequal relationships in visual research with children. For instance, none of the children in the Ghanaian setting the second site of this study could tell the names of the gadgets as cameras and rather referred to them as 'pictures' when we first entered into this space. Does this mean that they are less intelligent than their Australian counterparts? Certainly not! After all, they were able to mention the product that the camera produces. A plausible reason could be that the majority of Ghanaian families do not own digital cameras compared to what the Australian children had told us that they have seen and used cameras owned by their parents. The children in the Australian setting did have familiarity advantage over their Ghanaian counterparts. For the children in the Australian setting, there was no fear of
damaging the camera, and how to operate it, came with ease after few minutes without orientation compared to their Ghanaian counterparts who have difficulty operating the cameras (see the next publication for details of the findings). What was important to us and interesting were that both groups of children were given opportunity and voice to research their own development and learning and to come out with what they considered safe and unsafe situations in their centres.

We also recognised that in the Ghanaian setting one of the researchers the leading author was not a colonial personality, yet a “halfie” researcher (Subedi, 2006) because of his double education and acculturation in Ghana and Australia. By virtue of migration, and overseas education, he has a mixed cultural and national identity (Abu-Lughod, 1991). Abu-Lughod explains the dilemmas faced by halfie researchers thus:

As anthropologists, they write for other anthropologists, mostly western. Identified also with communities outside the West or subcultures within it, they are called to account by educated members of those communities. More importantly, not just because they positioned themselves with reference to two communities but because when they present the Other they are presenting themselves, they speak with a complex awareness of and investment in reception. Both halfie and feminist anthropologists are forced to confront squarely the politics and ethics of their representations. There are no easy solutions to their dilemmas (1991, p. 142).

Thus we were faced with the task of how to conduct an ethical research in both settings and how to write multiple representations to answer to the Australian and the Ghanaian communities. In particular, in the Australian setting we were a total stranger, however our frequent visits to the Australian centre prior to the commencement of the research have helped us establish an equal relationship with the children, which helped the children to feel at home when we finally appeared to work on this project. Consequently, the children did not display tendencies that suggest we were unwelcome visitors to the centre.

Since this work is post-positivist in nature, we addressed the major ethical issues with rigorous reflexivity. Rigorous reflexivity implores researchers to be open-minded and accountable to the research and knowledge production process (Subedi, 2006). This enables the researcher also to re-examine subjectivities and the ethical processes adopted to involve the participants in the research process. Although rigorous reflexivity is attacked and that it is egocentric, narcissistic and lacks scientific value (Facio, 1993; Motzafi-Haller, 1997; Mutua & Swadner, 2004), rigorous reflexivity ensures accountability for the research process, knowledge production and ethics of representations.
To address some of these ethical issues children for whom consent had not been given were organised into groups for excursion on the days the photographs were taken to prevent them from appearing in the photos. This process also resolved the issue of overt exclusion of children from the research process as the centres allowed for multiple activities for children, which resulted in non-participants attending excursions. The retaining and continuing use or the destruction of the photographs also drew much concern. The authority to retain, continuing use or the destruction of the photos was given to parents who granted consent for their children. The complex images produced in both contexts endangered a dialogical struggle as we interrogated the images. The rigorous research process enabled and opened up possibilities to reflect on and to rethink early childhood research that involves the local and the international. Yet we recognised that both the Australian and the Ghanaian sites are constitutive of the global and therefore provide spaces for dialectical engagement with health and safety issues that confront early childhood practices globally but with context specific solutions. We cannot ignore the fact that global interpretations of early childhood health and safety issues influenced the way we interpreted what prevails in the early childhood centre in the first author's traditional home country.

**Conclusions**

This research methodology paper has raised many topical issues. It can be argued that visual knowing in which children engage in a communities of learners' relationship (Rogoff, 1994) constitutes network forms that open out possibilities in a way that the image taken simply as the illustration of the text is unable to generate (Deppeler, Moss & Agbenyega, 2008). Visual representations of social phenomena and its context are inextricably linked. This had featured prominently in the way children from the two research sites read the images that they produced and how the researcher, read them. Although it was not possible to eliminate power relationships completely in the research process the communities of learning approach evident in this research minimised the effects of adult researchers dominating the research field and also eliminated intimidation and fear suffered by children when they are engaged in traditional interviews or when being observed overtly. The visual methodology employed in the study has also demonstrated the capacity to probe children's insight into how they perceive physical dimensions of their interaction with the spatial ground that give rise to social phenomena; say welcoming and unwelcoming spaces, safe and unsafe palaces where children interact, learn and develop. As in every research methodology there exist fallibility, the auto-driven visual elicitation approach used in this investigation is also a subject for further verification. But the key issue is that auto-driven photo elicitation assists the researcher and children to interrogate communally
areas of child development and learning that texts alone cannot effectively explain.

REFERENCES


