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Waiata/Song

Hutia Te Rito

Hutia te rito
Hutia te rito o te harakeke
Kei hea te kōmako e kō
Ki mai ki ahau
He aha te mea nui
He aha te mea nui o te ao
Māku e kī atu
He Tangata, He Tangata
He Tangata Hi

Pluck the Baby (of a flax bush)

Pluck the baby
Pluck the baby of the flax bush
Where will the bellbird sing
You ask me
What is the greatest thing
What is the greatest thing in the world
I will tell you
Tis People! Tis People
Tis People

Adapted by Rose Pere
"Observation alone is not enough. We have to understand the significance of what we see, hear, and touch. This significance consists of the consequences that will result when what is seen is acted upon.” (Dewey, 1938, p. 68.)

Introduction

Increasing numbers of infants are being placed in group-based early childhood services, often for longer periods of time than previously. In New Zealand, for example, enrolments of infants below one year of age in licensed early childhood services have, over the last five years, increased more than for any other age group (Mintrone, 2011). The United Nations Convention on the Rights of the Child highlights the need to respect the agency and perspectives of even the youngest children (United Nations, 2006; United Nations Committee on the Rights of the Child, 2006). It is timely, therefore, to consider its implications for infant early childhood education and care. In this article, we describe a research project in which we are seeking to understand what life is like for infants in group-based care from the infants’ perspectives. We focus on the methods we have used to generate data. We begin by explaining our motivation for undertaking the project.

Provision, protection and participation

The 54 articles in the United Nations Convention on the Rights of the Child are often grouped within three broad categories: provision (e.g., adequate food, shelter and access to education); protection (e.g., freedom from abuse, neglect and exploitation); and participation (e.g., the right to have a voice) (Lester & Russell, 2010). In Australia and New Zealand, contemporary government policy relating to infants in early childhood services is most often concerned with ensuring a specified level of provision and protection by establishing measurable regulatory standards for aspects such as space, adult to child ratios and group size.

Factors such as small group size and higher numbers of staff to children enable more responsive caregiving, greater individual attention and stronger relationship building, at a time in life when responsiveness appears critical for healthy development (Lally, Torres & Phelps, 1994). For instance, a recent New Zealand report recommends that “Early childhood settings for under-two-year-olds should be places where children experience sensitive responsive caregiving that is attuned to their subtle cues, including their temperamental and age characteristics” (Dalli et al., 2011, p. 3). The authors argue that such “intersubjective attunement ... enables emotion regulation in infants and toddlers and wires up the brain for learning” (p. 3). Minimum group sizes and staff to child ratios in New Zealand and Australia, however, exceed those recommended for infants (Press, 2006). What, then, is the experience of infants like?

The right to participation encompasses children’s rights to have a voice, to express their ideas and opinions, to be taken seriously and to have their perspective considered in decision making. Since infants do not yet have expressive verbal language, how can we find ways to understand their perspectives, to tune into their ways of ‘being’, of experiencing and of making meaning? Sommers, Parnell, Samuelsson and Hundeide (2010) suggest that infants’ perspectives are portrayed through their expression of meaning in preverbal forms — such as body language, gesture and emotional expressions. What do these preverbal forms tell us about what the infants themselves are ‘saying’ about their experiences? What are the challenges faced in gathering and drawing meaning from infants’ communicative cues? It is important that we find ways to address these questions because the more we are receptive to the lived experiences of infants, the more likely we are to provide infant friendly environments in which we engage respectfully and appropriately with them and support their developing relationships.
The Infants' Lives in Childcare Project

Infants' rights to adequate provision, protection and especially participation, as identified in the UNCRC (United Nations, 2006) were a key motivation for the Infants' Lives in Childcare (ILC) project. The project involves a series of case studies of infants in Australian family day care homes across a number of family day care schemes and in three long day care centres operated by a large not-for-profit organisation. The case studies provide a rich source of data that enables insights into how infants participate as social actors within a group environment (described in Sumison et al., 2011).

In this article, we describe the mosaic we are crafting as we try to capture infants' expressions of meaning. Mindful of the quote from Dewey (1938) at the beginning of the article, we then reflect on the significance of what we are gleanings from our observations and other data, and the consequences for our practice as researchers as we try to understand infants' perspectives.

The Methodological Mosaic

Our approach involves crafting a mosaic of a diverse range of interpretative and theoretical perspectives and, as astute observers and data recorders, using these to inform our inquiry into the relational processes of infant group care. A mosaic approach provides opportunities to look and listen with different eyes and different theoretical lenses; to use different ways of gathering data; and to engage in meaning making using data gathered by and from different people and in different contexts (Clark & Moss, 2001).

We set about gathering and skilfully weaving together, or crafting, an evidence base for practice (Isitt & Kyriacou, 2003) by juxtaposing different types of data and different viewpoints (Symonds & Gorard, 2010). Our methodological mosaic, as illustrated in Figure 1, encompassed an array of data sources. Each source was chosen because of its potential to contribute to our developing understanding of what life is like for infants in group care. The data sources fall within four main groups - written documentation (unstructured observations, reflective field notes, time use diaries; visual records ('regular' video recording, 'baby cam', digital photography); standardised measures (temperament and language assessment scales); and the perspectives of educators and parents. We now describe each of these sources and reflect on their contributions.

![Figure 1: A mosaic of methodological data sources used in crafting understandings of what life is like for infants in child care](image)

Written documentation

Unstructured observations

Observations were the initial form of data gathering. By spending the first few visits writing observations, the site-based researcher was able to become familiar with the infant, the educator and other children, and routines. These visits also assisted in developing reciprocal and trusting relationships with each educator.

Reflective field notes

Field notes comprised descriptive and reflective writing. Information gathered included detailed descriptions of the social and physical aspects of each setting, for example, children's ages and attendance patterns; the educator's professional experience, and the physical environment and facilities. Summaries were completed after each visit to supplement video footage. They included information that was useful in putting the video footage into context, for example, details of special visitors on the day, changes to routine, and interesting conversations that took place.

Reflective comments by the site-based researcher as she looked at the data and wrote the summary were recorded separately. The comments proved to be particularly useful for developing contextual and theoretical insights when data were re-visited at a later date. They were also useful when sharing the data with other team members who were not as familiar with the infant or the care setting and when interpreting the data through a range of theoretical frames.

Time use diaries

Infants' activities as they naturally and sequentially occur in daily life were recorded in time use diaries (TUDs). TUDs have been used to report children's activities at home and at school (e.g., Bianchi & Robinson, 1997; Brown, Broom,
"The use of the digital video as a method for recording infants’ experiences required us to think carefully about how the recording would occur in each context, and the ethical implications of our recording decisions. Because the aim of the study was to understand infants’ lives in group-based care, we purposely set out to have as little impact on their daily experiences as possible."

Nicholson, & Bittman, 2010); however, no previous study has focused on children’s use of time in childcare. Therefore, we developed a list of activities typically occurring within an infant’s childcare day which were grouped within three broad categories: ‘what the child was doing’, ‘where the child was’, and ‘who the child was with’. Examples of ‘what’ included ‘quiet play/manipulative (crawling, puzzles, mat toys, dress up)’, ‘moving around/purposeful wandering’, ‘sharing a book; being read to/told a story’, ‘being held, cuddled, comforted, on lap’, of ‘where’ included ‘indoor’, ‘covered outdoor space/verandah’; and ‘with whom’ included ‘alone, independent, not with others’, ‘caregiver/teacher’, ‘other children’. Diaries were compiled during early visits to the infants’ childcare setting by the site-based researcher who observed and recorded each infant’s activities for every 5-minutes of the childcare day. Information gathered through the time use diary has been used to calculate the relative amounts of time infants spend in different types of activities, as well as time spent alone or with others and how infants’ activities change over the sequence of the day.

Visual Records

Visual records consisting of video and digital photographs were a further source of data. They were also used as a resource to share with educators and parents to elicit their perspectives.

Standard digital video data

Footage from a standard digital video camera provided a precise record of moments in each infant’s day. Decisions regarding the focus of the videocam were made in consultation with the educator and in response to initial analysis of observational data. The use of the digital video as a method for recording infants’ experiences required us to think carefully about how the recording would occur in each context, and the ethical implications of our recording decisions. Because the aim of the study was to understand infants’ lives in group-based care, we purposely set out to have as little impact on their daily experiences as possible. This meant that when videocam we tried to be non-obtrusive by carefully positioning the camera, and adopting a non-interested demeanour. There were a number of times, however, when the site-based researcher had to decide whether to step out of this ‘non-participant’ role and intervene in what was happening, or not, for safety or ethical reasons. In several instances, the researcher chose to stop filming because she felt it was intruding on very personal conversations between educators and infants.

Baby cam

Baby cam provided an opportunity for infants to generate video data from their own bodily position. For short periods of time, infants wore a micro video camera system consisting of a lipstick style camera worn at the side of the head on a headband or hat and a recording device held in a pocket at the back of a customised top or simply placed nearby in the case of immobile infants. Baby cam was used simultaneously with a standard digital video camera which provided the wider context for the baby cam video footage. The two views were then placed side by side using video analysis software allowing for simultaneous viewing of both an approximation of what the infant was seeing and attending to, and the overall physical and social context (see Figure 2).

One limitation of a standard digital video camera is that it provides a “third-person view” that is not representative of the “body scale” of the infant (Yoshida & Smith, 2008). Baby cam addressed this issue and the results were thought provoking: we all understand that: infants are small in relation to their physical and social environment, but baby cam provided an intimate view of differences in the scale of the environment for infants and adults.

The use of baby cam involved some ethical and technical challenges. Some infants wore the camera for periods of time without obvious signs of discomfort or concern and, in some instances, became involved in the preparation of the camera for the videocam session. Other infants, however, removed the camera during filming. Because it was impossible to ascertain with any certainty why the infant removed the camera we always erred on the side of...
"Data captured by means of video has not only enabled us to run two perspectives side-by-side, as was the case with using the baby cam, but to undertake frame by frame analysis and explore in minute detail the interactions in which the infant engages (Sumzion & Goodfellow, in press)."

cautions, assumed their behaviour to be an indication of non-consent and removed the baby cam equipment. Also, because the camera was positioned on a headband or hat, and the infant was often mobile during this positioning, it was difficult to ensure that the camera correctly aligned with the infant's visual field. Thus, rather than providing a definitive account of the infant's visual field, baby cam provided insights into what the infant might see from their bodily position, thereby providing another piece of the mosaic in our attempts at understanding the infant's experience. Data captured by means of video has not only enabled us to run two perspectives side-by-side, as was the case with using the baby cam, but to undertake frame by frame analysis and explore in minute detail the interactions in which the infant engages (Sumzion & Goodfellow, in press).

Digital photography

Photography has been used successfully to enhance understandings of children's lives in various settings (e.g., Barker & Weller, 2003; Pramling Samuelsson, 2004). Photographs taken by very young children have been used to provide opportunities for children to represent views that they might not be easily articulate (Clark & Moss, 2001; Malaguzzi, 1998); for highlighting the visual perspectives and horizons of the child; and for gainin an appreciation of the relationship between a small child's view and the relative dimensions of other things in their environment.

Older children were invited to use small digital cameras to photograph the aspects of the care context they felt were important (or not) to the infant. These photographs were then discussed with the child and their comments recorded in the form of field notes. The digital photographs were then compiled into a small book along with the child's and educator's comments, the field notes, and the researcher's own personal reflections. Although this is not the same as listening to the infant about their experience, the older children's experiences and knowledge of the infant provided a perspective that was not that of an adult (Clark & Moss, 2001).

Standardised measures

Standardised measures have been validated to ensure reliability. They present a predetermined set of questions in a uniform format that are designed to be read and interpreted in a consistent manner. The use of standardised measures has provided a means of gathering information about the infants in the ILC study that could be compared to the larger population. Two instruments were used: one to describe temperament characteristics; the other to record spoken and understood vocabulary.

Infant temperament questionnaire

In seeking to understand what group-based care is like for infants, it was important to describe and consider the individual characteristics of each infant that shape and influence their experiences. Parents were invited to complete a 30-item infant temperament questionnaire developed by Sanson, Prior, Oberklaid, Garino, and Sewell (1987) for the Australian Temperament Project. These items rated how the infant typically responds in certain everyday situations (from almost never to almost always); for example, 'my child plays actively (bangs, throws, runs) with toys indoors', 'my child is pleasant (smiles, laughs) when first arriving in unfamiliar places', 'my child stops crying and looks when he/she hears a sudden noise (telephone, doorbell)! The questionnaire generates a higher or lower score on broad dimensions of temperament: approachability to new people and situations; adaptability to new experiences and challenges; irritability or mood; reactivity or intensity of responses, such as crying or protesting, to stimuli or events; distractibility versus persistence when focusing on an activity or a task; and regularity or predictability of the infant's eating and sleeping patterns (Prior, Sanson, Smart, & Oberklaid, 2000). Thus we can consider the significance of each infant's temperament upon their experiences of group-based care.

The MacArthur-Bates Communicative Development Inventory: words and gestures

Young children's first words are eagerly anticipated and celebrated by their parents and others in their lives. Their first words typically capture the context in which children live, words that are heard frequently, and things that are important to children (Hart, 1991).

The Australian adaptation of The MacArthur Communicative Development Inventory: Words and Gestures (MCDI) (Fenson et al., 2007) was used to identify the vocabulary used by a number of infants in the project. The infants' parents and educators were invited to complete a checklist by ticking words that they had heard their infant say or those that they knew their infant understood in everyday life. If they believed that words were learned in the home environment, they placed an H (home) next to the word, and C (childcare) if they learned it from the childcare environment, or both H and C if they believed the words were learned in both environments. These early words most often reflect both the general and the individual contexts of the infants' lives.
Educator and parent perspectives

Once the data collection using the approaches outlined above was complete, focussed conversational interviews were held with educators and at least one parent of each infant. The purpose was to further enable us to understand the infant’s experience by eliciting the perspective of parents and educators, as people who knew the infant intimately. At these interviews, the educator, parent(s) and at least one member of the research team viewed edited videos of key segments of data that seemed to the research team in their initial discussions of the video footage, particularly interesting, meaningful or perhaps difficult to interpret. The educator and parent(s) were invited to comment on, interpret and reflect on what they saw. The discussions were open-ended. They provided an opportunity for collaborative interpretation by the researcher, educator and parents and the transcripts of the discussions provided a further source of data.

While conversations that emerged spontaneously between the educator and the site-based researcher provided a useful starting point (Patton, 1990), a ‘formal’ interview time allowed for focussed sharing and discussion. It also ensured that the voice of the parent, who was often absent at the time of data collection, was heard. Co-constructing insights into infants’ experiences in this way enabled access to educators’ practical wisdom (Goodfellow, 2003) and parents’ deep familiarity with their infants. These data sharing sessions were generally much anticipated and appreciated by educators and parents. Parents, in particular, enjoyed the opportunity to learn more about their infant’s experience in care, something that on a daily basis is often hidden from their view. These data sharing sessions were in turn videoed and added to the data.

Reflecting on significance and consequences

The ILC project is a work-in-progress. The quote from Dewey at the beginning of this article reminds us of the importance of reflecting on the significance of the methodological mosaic we are crafting and of the consequences of our ongoing data gathering. We believe that one of the most important aspects of the project is the metaphor of the mosaic because it has enabled us to garner information from diverse theoretical, philosophical and disciplinary bases as well as from researcher, educator and child perspectives. Dialogue between these diverse perspectives has helped dislodge us from the lenses of our own expertise and adult views and we believe, enable us to become more receptive to infants’ own perspectives (Sumson et al., 2011).

The more traditional forms of data gathering within our mosaic were standardised measures as well as written documentation including observation and field notes. Capturing infants’ engagement in activities through video recording is also a common procedure. Our project differs from many other projects in that we have tried to focus on including infants as participants in the research process. At a minimum, this means we need to find ways of eliciting and analysing materials that allow us space to become more receptive to infants and to allow them opportunities to convey to us aspects of their lives in the hope that we might gain insight into how infants themselves experience their worlds.

This requirement presents us with many ongoing challenges. For example, analyses of videos of infant behaviour often use adult categories that have been defined beforehand. Yet, if we wish to understand infants’ experiences as unique to their contexts, non-adult and hence genuinely ‘other’ (Elwick, Bradley & Sumson, under review), we need to find alternatives to pre-established categories.

Another challenge has been to find ways in which infants can genuinely participate in the research. Some infants occasionally demonstrated their agency by showing an interest in the camera equipment and/or what could be seen through the view finder. Their interest made us think closely about infants’ abilities to “participate on their own terms” (Gallacher & Gallagher, 2008, p. 503), rather than in the ways that we expected.

We anticipated that the baby cam would enable infants to ‘participate’ in the data gathering process by wearing the camera and generating data from their own body position. Our pre-established ideas about ‘participation’, however, meant that when infants acted in unexpected ways we were uncertain about how to respond. We became acutely aware of how our assumptions limited possibilities for the infants to engage legitimately in the research. How to include this unexpected ‘data’ is the focus of ongoing discussion amongst the research team.

Conversations amongst our research team about our different interpretations of the data, and conversations with those who know particular infants well are important for developing pictures about, and a receptivity towards infants’ lives in non-parental care. However, we are mindful that they are not the same as a conversation with the infant in which they can verbally confirm or challenge our interpretations of how they are experiencing their lives in group-based early childhood services.

Overall, what we have learnt is how important it is to take time to really ‘listen’ (metaphorically) to infants. We have been very fortunate in having the luxury of exploring moments in time during infants’ lives within group-based care. However, we need to remain respectful of infants’ experiences by acknowledging the impossibility of knowing with certainty what meaning they may be making of those experiences (Elwick et al., under review).

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