

LISTENING TO YOUNG CHILDREN: A MOSAIC APPROACH - RESEARCH PERSPECTIVES FROM TWO CHILDREN AND DINOSAURS

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Abstract

The inclusion of children's responses in research of educational settings are important and have been described as a pertinent tool to understand and be aware of children's perspectives that adults may not be aware of (Lundqvist, 2014). Sheridan (2011) further expresses that the "evaluation of quality of early childhood education must include the voices of children" and is an essential part of the overall understanding of early childhood education. The responses and voices of young children reflect diverse forms of communicating, representing and interpreting their thoughts and emotions. This paper will present some models that can help guide the researcher to make decisions about how a child can participate in the research activity. Specifically, I will describe the use of an ethnographic combined with Clark and Moss's Mosaic approach to researching with children.

Keywords: Mosaic approach, listening to young children, ethnography, Reggio Emilia, child-conferencing

Research with Children

As a researcher, I have to consider the most appropriate data gathering tools to address my research question, and I must also consider the abilities, emotions, behaviour and developmental age of my participants. Furthermore, the purpose and objective of the research will determine the type of research study that is taken. Johnson and Christensen (2008) elegantly outlined five different kinds of research undertaken with or about children: 1) basic research, 2) applied research, 3) evaluation research, 4) action research, and 5) orientational (critical theory) research. Both basic and applied research can be considered to be two ends of a continuum “as often research projects have elements of both in varying proportions” (Johnson & Christensen, 2008).

Table 1	
Types of research undertaken within the sphere of early childhood research.	
Basic research	<ul style="list-style-type: none"> • Fundamental research to understand brain function and mechanisms • Not immediately applicable to everyday life but applied research is built upon fundamental discoveries leading to advances in practical applications of basic knowledge
Applied research	<ul style="list-style-type: none"> • Answering and finding solutions to “real-life” questions • Early childhood practitioners and those who study early childhood education are most likely to engage in applied research
Evaluation research	<ul style="list-style-type: none"> • A form of applied research often undertaken when a new intervention or project has been implemented • Used to determine if new programs should be rolled out for wider participation
Action research	<ul style="list-style-type: none"> • An example of applied research that occurs in the workplace. • Objective is to arrive at a solution or intervention that can be implemented and evaluated
Oriental research	<ul style="list-style-type: none"> • Collects information to help strengthen the argument of those who wish to promote a particular ideology • Tends to focus on disadvantaged sections of society and focus on social inequalities

Table 1. Types of research most often employed in the field of early childhood research.

Historical Context on Research with Children

Each type of research mentioned above can be applied to understand different aspects of early childhood learning with varied form of methodologies. O'Reilly, Ronzoni, & Dogra (2013) state that the “views of children and childhood, children’s rights and children’s abilities inevitably have an influence on the way research is conducted”. These views dictate and influence the transition between research ‘on’ children (as passive participants) to research ‘with’

children (active and respected participants) (Rengel, 2014). It was only in the early 19th century when children were regarded as a distinct population, as opposed to being portrayed as mini-adults or blank canvasses; passively absorbing information and mindlessly being moulded by adults (Sameroff, 2010). In the twentieth century, there was increased interest regarding children's behaviour, emotional and cognitive stages and when the United Nations adopted Eglantyne Jebb and Janusz Korczak's Declaration of the Rights of the Child (Maynard & Powell, 2014), attitudes about children began to change. The use of children as research participants (as opposed to subjects) became more common and children's responses were included as an important aspect of educational research. Children's responses can enrich adults' understanding of "how children experience educational settings and their sense of well-being in these environments" (Lundqvist, 2014). Thus, for the context of this paper, I will focus on different methodologies and methods used in the field of early childhood learning to understand and gather children's responses in a research setting.

Children's responses in research of educational settings are important and have been described as a pertinent tool to understand and be aware of children's perspective that adults may not be aware of (Lundqvist, 2014). Sheridan (2011) further expresses that "evaluation of quality of early childhood education must include the voices of children" and is an essential part of the overall understanding of early childhood education.

The responses and voices of young children reflects diverse forms of communicating, representing and interpreting their thoughts and emotions. In Loris Malaguzzi's poem "The Hundred Languages of Children", he asserts that young children (especially pre-verbal ones) have a hundred ways of communicating ("a hundred hands, a hundred thoughts, a hundred ways of thinking, of playing, of speaking") with us and thus, we need to listen and allow and provide materials to the children to be able to speak to us beyond the use of language. The poem "The Hundred Languages of Children is in *Appendix 1*.

According to Eisner (2002), employing different forms of representation utilizes different cognitive skills, and if children are provided resource-rich environments, they will have many opportunities to select tools and materials to create forms of representation of their knowledge (Ade & Da Ros-Voseles, 2010). Drawings, interactions with peers, adults, toys and animals, independent play (object manipulation) and naturally occurring talk (babbling or frequent use of nouns) are forms of data most consistently used to understand young children's responses (McKechnie, 2000). In parallel, to further triangulate the data from the children, often the caregiver's responses are also collected through journals and diaries, scripting, photographs and audio visual. The researcher gains access to a group and carries out extensive observation in a natural setting for a period of months or even years. These methods are the basis of ethnographic study.

Ethnography: sustained, holistic and self-corrective.

Ethnographic studies of preschoolers have been the main research method of choice in the field due to the "sustained nature of ethnography" (Eder & Corsaro, 1999) and by entering

the worlds of children to chart significant phases of their lives, allows the ethnographer to document crucial changes that are essential for understanding socialization processes that would contribute to understanding of children's lives. According to Eder and Corsaro (1999), ethnographic studies of preschoolers are 1) sustained and engaged, 2) microscopic and holistic, and 3) flexible and self-corrective. The features of ethnographic studies in the context of studying young children are summarized in Table 2.

Table 2	
Feature:	Summary
Sustained and Engaged	<ul style="list-style-type: none"> • Observations are conducted for months, sometimes years • Ability to return to the group for future intervention programs • Long-term and longitudinal studies allow optimal interpretation and understanding of children's lives • Acceptance into a child's world either from an observer or participant-observer • Participation aligns with developmental histories and thus documentation provides insights to the processes of children's worlds
Microscopic and Holistic	<ul style="list-style-type: none"> • To capture the actions and events as they were understood by the actors (children, educators) themselves, process of interpretation called "thick description" (Geertz, 1973) • Grounded in the specifics of everyday life and participant's reflection on them • Moving beyond "thin description", often from an adult perspective to a more holistic interpretation of interactions between children (Geertz, 1973). For example, at a "thin description" level, a preschooler who resists the access of others into their established play routines may be viewed as having troubling behaviour. However, using "thick description", this behaviour is viewed as a way for the child to protect the play space to avoid disruption with their play. In thick description, the child's behaviour is no longer viewed as troubling.
Ethnography is flexible and Self-corrective	<ul style="list-style-type: none"> • It is dialectical (i.e. feedback method in which initial questions may change the course of inquiry) • Self-correction is built into the processes of ethnographic collection

	<ul style="list-style-type: none"> • Pertinent when studying young children • Recording and analyzing initial methodological errors is a useful way to gain information for revising procedures to better fit a particular field situation. For example, sometimes it is not known about the children's responses to the researcher's questions, especially when the usual method of communication is different from adults (Gaskins, Miller, & Corsaro, 1992)
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Table 2. Features of ethnography as a methodology when studying young children.

Much like young children having “a hundred languages” to communicate, it is important for researchers to understand that listening is a process that is not limited to the spoken word. The phrase ‘voice of a child’ may suggest the “transmission of ideas only through words, but listening to young children, including pre-verbal children, requires a process which is open to the many creative ways young children use to express their views and experiences” (Edwards, Gandini, & Forman, 1993). By adopting ethnography as a medium for studying young children and collecting their views and experiences as data, one is employing a narrative ethnographical research project (Hohti & Karlson, 2014). Narrative ethnography allows the researcher to follow children's voices from the level of classroom observation to an analysis on narrative data produced through storytelling by the children. By listening to the children, it makes it possible to take on a child's perspective of different issues (Crivello, Camfield, & Woodhead, 2009). When one attempts to understand the perspectives of a very young child, his/her abilities “can be made visible or hidden by the lenses adults use to view them and their lives” (Clark, 2007). These lenses are also employed by early childhood researchers who often choose different methods to document their findings. Multi-methods such as observation, child conferencing, photographs, tours (led by children as an exploratory tool), role play, parents' perspectives, practitioner's perspectives and researcher's perspectives (Clark & Moss, 2001). Although there is research which uses one or two of these listening methods to gain an understanding of children, there is a trend towards adopting a more holistic method of data collection by incorporating many of these methods together. Katy Bartlett (1998) uses the phrase a “mosaic of perspectives” for the process of listening to young children used in her early years work. She describes the importance of a multi-method approach which brings together children's own views with those of family members and teachers. Clark and Moss further interpreted Bartlett's work to include a “reflective and interpretative dimension” (Clark & Moss, 2001) and coined this approach the Mosaic approach.

The Mosaic Approach

The Mosaic approach originated from rural development work. It is a participatory learning in action way of “listening which acknowledges children and adults as co-constructors of meaning. It is an integrated approach which combines the visual with the verbal (Clark &

Moss, 2001). A range of imaginative methodologies are used without the written word, a particularly important aspect of researching young children. Inspired by the pedagogical approach of Reggio Emilia in Northern Italy, the approach emphasis is on documentation and children's natural responses.

The Mosaic approach is divided into two stages:

- *Stage 1:* Adults gathering documentation about the children through a collaborative process
- *Stage 2:* Piecing together information for dialogue, reflection and interpretation

Stage 1 incorporates each method and tool used to listen to young children to give the researcher an insight into the child's views and experiences. The strength of this approach is reinforced through the process of dialogue, reflection and interpretation. There are several commonly used tools associated with gathering documentation from a child which include: observations, child-conferencing, photography, drawing, role-play and tours. These are the foundational tools, however, one is encouraged to explore other types of tools to complement each child's interests. It is important to note that applying a single method only gives the researcher one listening tool, and thus, integrating methods from both Stage 1 and Stage 2 gives a complete "pictured" documentation of the child's response and representation of his/her voice. A summarized description of the approach is outlined in Table 3 and based on descriptions as outlined in Clark and Moss (2001).

Table 3	
Method	
Observation	Observations of pre-verbal children requires the researcher to "listen" to the child's body language, movements, interactions with the activity, peers and adult and impression of the learning environment
Child-conferencing	Formal structure for talking to young children about an activity or about their learning environment. The setting has to be chosen carefully to consider the comfort level of the child. This method is flexible and can be conducted in a stationary or moving position and can take time, as repeated child-conferencing is conducted as a reflexive tool.
Photographs	Preschool children are provided with cameras to capture their favourite scenes and activities. This gives control to the child as a researcher and allows the researcher to view the world from the child's perspective. It is possible that "taking photographs may be one way of enabling children, who are preschoolers to tell adults more about the important things in their learning environment" (Clark & Moss, 2001). Cameras also offer opportunities for young children to participate and complete a project that they can take pride in. When children chose which photographs they wanted to present to the researcher, the documentation is more authentically child-originated.

Drawing	Semiotic interpretation of the learning environment or activity represented through a child's drawing, often seen as swirls, scribbles and lines. This is an effective method to collect responses from children with speech as they can provide narration through the symbols they have used.
Tours	This is an extension of young children's work with cameras and is used as an explorative tool for them. Tours are led by children and include documentation through children's drawings, recording of their conversations and photographs. This is a child-led way of thinking, beyond the traditional interview room. This can be viewed as a way of moving towards a child agenda for change (Clark & Moss, 2001).
Role play	Play figures and play equipment allowed the children to tell their own narratives about their learning environment. A "story stem" can be introduced to young children where play figures can be used to re-enact a story and complete a narrative (Robinson, 2007).

Table 3. Tools of Communication and Listening from the Mosaic approach.

Each tool is a tile that makes up one's structure to listening. The "voice" of the child can be interpreted through a number of methods of expression. In addition to the children's voices, parents', practitioners' and the researchers' perspectives also build on the understanding of children's feedback in an educational research setting. A parent's perspective puts emphasis on how a caregiver perceives a child's learning and experiences within a learning environment. Parents' voices provide another piece of the Mosaic approach to understanding children's lives, particularly for pre-verbal children. It is also important to include the practitioner's voice because preschool children often spend many hours in their care. Gaining the perspective of the educator will provide another piece to the Mosaic about the daily life of the child. Finally, it is pertinent to acknowledge the researcher as a visible part of the process (Clark & Moss, 2001). Observation notes, field notes and photographs form the basis of the reflection and contribute significantly when combining the narratives from the children and the perspectives of the parents and educators with the views of the researcher.

The Mosaic approach is designed based on a practitioner's approach to teaching in the early childhood classroom, however, its approach is a framework which can be modified to understand and appreciate children's voices from a researcher's perspective. The methods proposed by this approach are sound ways to gather documentation when researching the learning outcomes of young children. Figure 1 illustrates the different "tiles" associated with the Mosaic model and each tile is modular and thus, a combination of tiles are designed based on the mode of communication each child (e.g. A, B, C) uses to communicate and respond to the research activity, in combination with an immersed ethnographic study of the daily routine of that child.

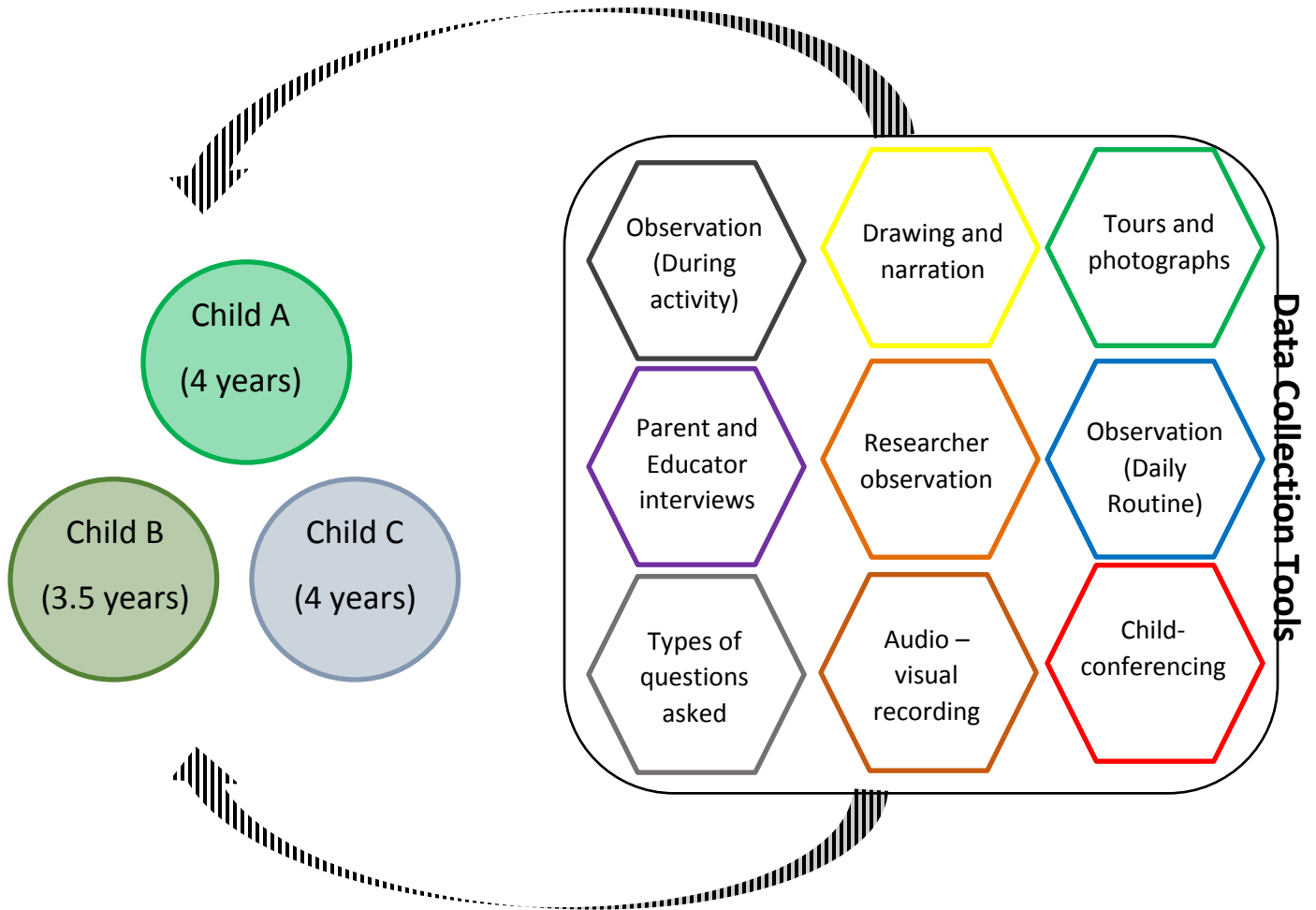


Figure 1. An adapted model of the Mosaic approach for research purposes. Each child (A, B, C) is observed through an immersed ethnographic study by the researcher to establish an appropriate set of methods to gather responses for the research activity.

Application of the Mosaic Approach

As poetically described in the “One Hundred Languages of Children” by Loris Malaguzzi, each child communicates and responds in many ways and the researcher is assured that the responses are captured through the different methods described above. For example, Figure 2 illustrates two different children of the same age who were given the same research activity to experience and evaluate. Both boys were fascinated with dinosaurs and to complement the educator’s curriculum on living things, the researcher brought different activities into the classroom once a week to extend from the teacher’s lessons about dinosaurs. Examples of some activities include, circle reading on different types of dinosaurs, using our bodies to become dinosaurs (e.g. moving our arms to imitate the jaws of a *T. rex*, stomping our feet to walk like a four-legged dinosaur, placing our bodies close to move in herds), using materials from the kitchen to learn about the process of fossilization, tasting different types of food to learn about the diversity of dinosaur teeth (e.g. using mirrors, we observed which teeth we used to eat

carrots, chicken, bread and other types of food), and simulations of meteor impacts on earth with sand. In addition to the researcher's activities, the teacher continued each exploration and extended into other activities in her program (e.g. writing, singing, language learning) in her classroom between the researcher's sessions to stay authentic to continuously listen to the children. Listening for children's reflections does not occur at specified or convenient times and instead, tend to happen organically when the child chooses to make their implicit learning and reflections, explicit. These brief glimpses occur through different interactions to allow "listening" for reflections to become explicit.

Thus, it is important to allow each child choices to communicate about their learning environment in a different way. It is pertinent for the researcher to observe and be "involved" in the child's daily routines to appropriately select the method that would best capture the child's response to the research activity.

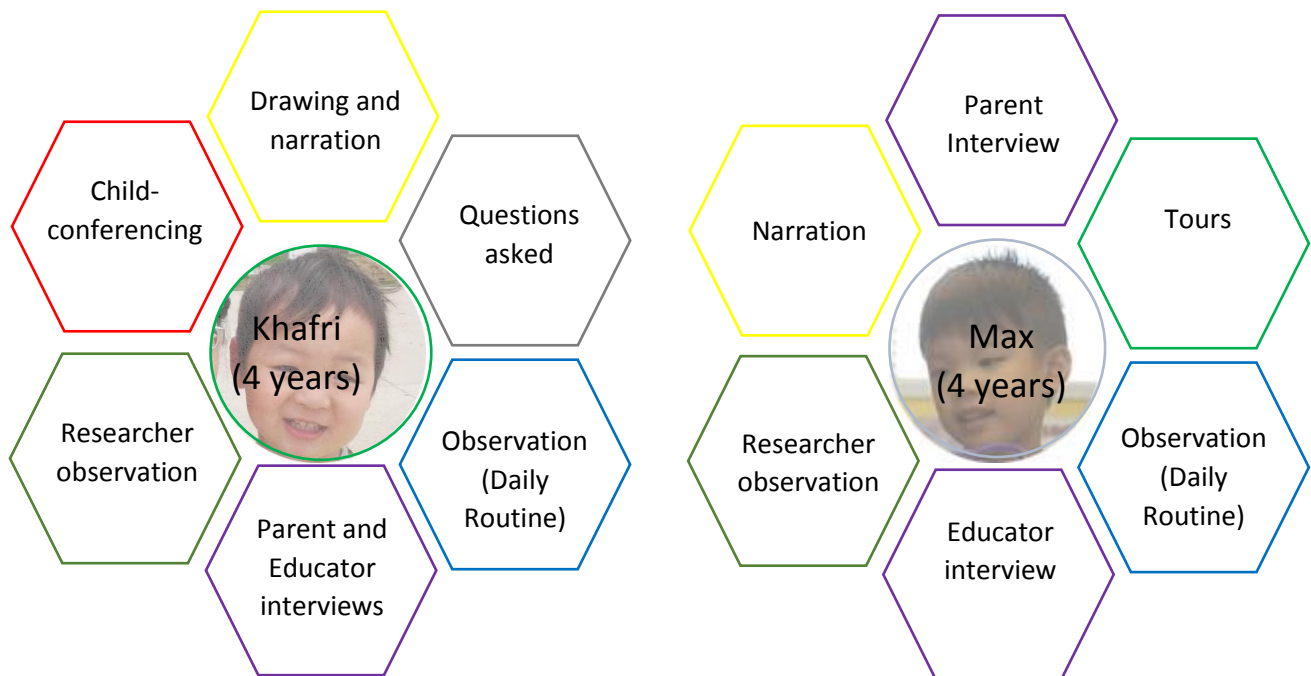


Figure 2. Two children, 4 years of age, communicate through different methods (hexagonal tiles) on a similar research activity. Each set of methods are selected to capture each child's response to the research activity. Notice that Khafri preferred drawing and narration while Max preferred tours.

Each method is flexible and can be moulded to help the researcher obtain specific responses that help address the research question. The themes around narration, role-playing and child-conferencing become a discussion on how the child enjoyed the activity. The responses and methods are child-centered and child-led.

By gathering the data sets from each method, one can start to get information and a visual theme that reveals what activities the child is most frequently interested in. In Table 4 for example, Khafri clearly indicated that he preferred to explore the topic of dinosaurs through

books, hands-on activity and role-playing. More specifically, he is most interested in carnivores, rather than herbivores, as demonstrated by the frequency of Khafri talking about carnivorous dinosaurs through the different communication tiles.

Table 4


 Khafri	Drawing and Narration	Tours and photographs	Observation (Parent/Educator)	Parent/Educator Interviews	Child Conferencing	Researcher observation
Dinosaur storytelling	•		•	•		•
Carnivore activity	•	•	•	•	•	•
Herbivore activity			•	•		
Reading about dinosaurs	•		•	•	•	•
Role playing with friends	•	•	•	•	•	•
Playing with dinosaur figures			•	•		•
Colouring dinosaur pictures	•		•	•		

Table 4. Khafri prefers carnivorous dinosaurs and he communicated his interest most frequently through drawing and narration, candid play (observations by parent, educator and researcher) and child-conferencing.

The Mosaic approach allows for differences in perception that might otherwise remain hidden or miss-interpreted, to be made visible to the adult researcher. Useful discussion and “meaning-making of the documentation can come from the parents, educators and researchers’ perspectives. (Clark & Moss, 2001).

Limitations of the Mosaic Approach

Similar to other methods in the field, there are limitations to this approach. Children who are more reserved and are uncomfortable with new activities and adults may find this method challenging and constricted. Children’s friends may leave the program, breaking the established

friendship formed through the activities. Some children may have undocumented learning challenges and unique behavioural attitudes that make child-conferencing or role-playing difficult. From the educator and parent perspective, this approach may seem to undermine the current teaching paradigm in the classroom and thus, lead to some resistance to participate. Time and commitment from the adult's point of view may be looked upon unfavourably and thus a time for engaging with the child becomes another task or chore to complete before the end of the day.

Several of these challenges may be addressed by incorporating some quantitative methodology to further support qualitative observations. For example, one can adopt an assessment test that measures a young child's understanding. For example, the Woodcock-Johnson III tests for cognitive abilities have been used in the field to measure a child's understanding from different disciplines of study. Specifically, they provide a comprehensive system for measuring general intellectual ability, specific cognitive abilities, scholastic aptitude, oral language, and achievement (Kozey, 2006). Surveys are also commonly used with preschool children to gauge the validity of their responses and are designed using different methods to gather their responses. Since preschool children are pre-verbal and are able to understand images (Read & Fine, 2005), the Wong-Baker pain rating scale (Airey, Plowman, Connolly, & Luckin, 2002) or the Smileyometer scale (Read, MacFarlane, & Casey, 2002) are often used instead of a traditional, numerically-based Likert question. Some research groups have gone beyond images on paper to measure a child's response and adapted survey options to using puppets to assess (Mantzicopoulos, Patrick, & Samarapungavan, 2008) and to measure (Stone, et al., 2014).

Conclusion

There is general agreement in the field that children must have a voice and be able to participate in research. For the scope of this paper, I have presented some models that can help guide the researcher to make decisions about how a child can participate in the research activity. As a researcher, especially with young children as participants, one must be sure to consider a range of factors including the ability, personality and comfort of the child. One must also consider the risk assessment of the field and ethical implications when researching with children (topics not discussed in the context of this paper, however, are important to consider in one's research). Learning and "listening" to the child's voice significantly can enrich our research while building on the respect, trust and cooperation between the researcher and the child.

Appendix 1

The Hundred Languages of Children

The child is made of one hundred.
The child has a hundred languages
a hundred hands
a hundred thoughts
a hundred ways of thinking
of playing, of speaking.

A hundred.

Always a hundred
ways of listening
of marveling, of loving
a hundred joys
for singing and understanding
a hundred worlds
to discover
a hundred worlds
to invent
a hundred worlds
to dream.

The child has
a hundred languages
(and a hundred hundred hundred more)
but they steal ninety-nine.

The school and the culture
separate the head from the body.

They tell the child:
to think without hands
to do without head
to listen and not to speak
to understand without joy
to love and to marvel
only at Easter and at Christmas.

They tell the child:
to discover the world already there
and of the hundred
they steal ninety-nine.

They tell the child:
that work and play
reality and fantasy
science and imagination
sky and earth
reason and dream
are things
that do not belong together.

And thus they tell the child
that the hundred is not there.

The child says:
No way. The hundred is there.

“The Hundred Languages of Children” -Loris Malaguzzi
Founder of the Reggio Emilia Approach (Edwards, Gandini, & Forman, 1993)

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