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What is the nature of communication between two year olds in a musical free play environment?

Charlotte K Arculus

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Abstract

This small piece of qualitative, practice-based research examines the nature of peer to peer interactions between two year olds in a musical free play environment. If social-emotional interaction is the ontogenetical basis of language, then how does it manifest in two year olds when they leave the family home and enter the nursery environment? The study draws on theories including Communicative Musicality (Malloch & Trevarthen, 2009) and Affect Attunement (Stern, 1985) and the relationships between temporal arts and interaction (Reddy 2010; Dissanayake 2012).

I consider the ethical issues around doing research with children who do not express themselves in words. particularly informed consent and participation. Results showed a surprising amount of 'affective group interaction', a term I use to describe phenomena where several children are taking part in something simultaneously and there is a sense of attuned, dynamic group mutuality.

The study raises interesting thoughts around young children's abilities to tune into group activities. I argue that music and the temporal arts give unique affordances to facilitating multi focus, group activity.

Keywords: early childhood, music, two-year-olds, social-emotional, communicative musicality.

What is the nature of communication between two year olds in a musical free play environment?

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Charlotte K Arculus

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Abstract

This small piece of qualitative, practice-based research examines the nature of peer to peer interactions between two year olds in a musical free play environment. Drawing on theories including Communicative Musicality (Malloch & Trevarthen, 2009) and Affect Attunement (Stern, 1985), I ask how young children adapt and transform the social-emotional skills learned with their carers and families to make meaning with peers. The research took place in a Sure Start nursery setting, in a summer house dedicated to music and group work which the children were familiar with. During the research sessions a protocol of adults responding to, but not directing or initiating interaction with children, was adopted and talking was kept to a minimum. This context was designed to be conducive to enabling two year olds to freely interact through music making by which I mean, bodily gesture, voice play, and sound making. The sessions were videoed and peer to peer interactions were micro-analysed. The nature of interaction between children during the sessions was short and intense. The children derived pleasure from successful interactions with each other and used a variety of musical expressions in their connections such as bodily movement, gesture and voice play. Results showed a surprising amount of *affective group interaction,* a term I use to describe phenomena where several children are taking part in something simultaneously and there is a sense of dynamic group mutuality. The study raises interesting thoughts around young children's abilities to tune into group activities and I argue that music and the temporal arts give unique affordances to facilitating multi focus, group activity.

Introduction

In the introduction, I describe the context around my own practice. I go on to explain the rationale for this particular piece of research. In the literature review, I look at theory and research around communicative musicality, group music making, intersubjectivity and language to identify themes which run through the study. The Methodology section covers methodological perspectives, the design of the research and ethical considerations. Methods and Analysis form part of this section and describe how the data was gathered and scrutinised to form three levels of analysis. Findings are discussed at length and linked to theory. I conclude with reflections and discussion around arts based practice and two year old pedagogy.

The Study

This small piece of qualitative research examines if and how two year olds interact in the context of a musical free play environment, and how they communicate and make shared meaning and friendships. It asks:

What is the nature of communication between two year olds in a musical free play environment?

If social-emotional interaction is the ontogenetical basis of language (Malloch & Trevarthen, 2009; Reddy 2010; Dissanayake 2001, 2012) then how does it manifest in two year olds when they leave the family home and enter the nursery environment? How do peers make meaning together and form friendships, and what does this look like?

This study examines a specific musical free play context designed to be conducive to enabling two year olds to freely interact through music making by which I mean voice play, bodily gesture, physical movement, and sound making. I look at children's dispositions and how they play out within

a musical free play context. As well as asking what this implies for Early Years (EY) music pedagogy and children's musical resilience, I want to contribute to a deeper understanding of wider EY pedagogy for two year olds, in particular, social and emotional development, wellbeing and communication.

Context

I work in a large cluster of children's centres in the east of England in an area which is deemed by policy maker and funders to be one of the most disadvantaged in the east. The centres are governed by a community trust which works holistically with the wider community. There are high levels of unemployment, poor mental health and low levels of achievement in education. Children have lower than average attainment levels at foundation stage. Due to government funding for two year old nursery places in areas such as ours, there are increasing numbers of very young children being placed in nurseries. Many settings have specific rooms for two year olds. The government rationale for the funding is to enable the most disadvantaged young children to be 'school ready' and to narrow the achievement gap between disadvantaged and advantaged children . Furthermore funding for two year old places is set to increase rapidly in the next few years. A progress check at two years old has been introduced as part of the Early Years Foundation Stage (EYFS) and two year olds will be assessed against developmental criteria. There are clear ideas about *what* a two year old should be doing but less clarity on the social emotional processes which enable children's development.

Our organisation has had music embedded as part of its work since its inception as a Surestart trailblazer in 2001. Sure Start was a UK government initiative, announced in 1998 with the aim of "giving children the best possible start in life" through improvement of childcare, early education, health and family support, with an emphasis on outreach and community development. It aimed to improve outcomes for all young children, and in particular to close the gap between the outcome for the most disadvantaged children and others (DCSF, 2005).

The work we do with families forming *communities of music making* is an integral part of the children's centre and the Music team works alongside the Parent Infant Mental Health team, and the Family Support and Universal Teams. There is recognition of the unique role music plays in bringing people together, in enhancing communication, in children's development, and in wellbeing.

The music team has been working with two year olds over the past two years, using a variety of musical approaches to develop communication and wellbeing as well as musical skills. We offer creative professional development to early years practitioners in facilitating playful funniness through music within their settings. This study builds on this work and looks deeply into phenomena which I am very interested in: the social emotional processes which enable children to become confident and resilient communicators, what makes them laugh, and the role that musicality plays in this (Arculus, 2011).

The two year old children who attend our nurseries sometimes have delays in communication, talking and other development issues due to a variety of factors related to poverty. In addition some of our two year olds have a different mother-tongue and some have additional needs.

Rationale

The increasing influx of two year old children into nursery places is a new phenomenon. But other than their developmental stages, there is a scarcity of qualitative literature on this age group, particularly in nurseries. While a great deal is known about the social emotional processes which occur in early infancy between carer and infant (and which has also been linked with human musicality, Stern, 1985; Malloch & Trevarthen 2009; Dissanayake, 2001, 2012), and a large amount of qualitative research exists on children of three and four years, I found it hard to find any qualitative research on two year old children in nursery settings. This is possibly due to the difficulties in conducting research with children who move about a great deal, expressing themselves and making meaning through bodily engagement rather than telling us their thoughts and feelings in

words. However I do not wish in any way to portray a deficit image of two year olds. It often seems as if toddlers are viewed as problematic and immature, issues to be solved by becoming a little older and easier, with more spoken language and more ability to understand the need to conform and attend to things rather than being interesting precisely because of the diversity of communicative tactics they employ, their unconformity and fresh perspectives. This is exemplified by the familiar phrase 'the terrible twos'. Sheridan's (1973) work on birth to five developmental stages describes two year old behaviour as 'resentment of others', 'being unwilling to share', 'demanding carers attention'. My own perspective on two year olds is that they are the most interesting and stimulating age group to work with, and that they have competences in multi-modality, bodily expression and the ability to be 'in the moment' which greatly exceed my own.

Until recently, young children have largely gone through the two-to-three period within the family home and it is here that qualitative research has focussed. The increase of two year old rooms for funded children also means that there is sometimes no mix of ages, no three and four-year-olds in close proximity to help scaffold, lead and enculturate the younger children in playful child-centred ways. This relatively new phenomena of two year-old-peer groups in EY education, making meaning together through adapted and evolved forms of communicative musicality is the focus of this small study.

The importance of the two year old period cannot be underestimated. It is vitally important to understand the communicative competences of two years olds and the social-emotional processes which support them as they come, in large numbers, to education. We need greater understanding of how to meet them in a co-constructed and creative place – rather than talking *at* them. This research aims to hear children's voices and develop ways of listening to, and thinking about two year old children. In two year olds, creative processes and critical thinking can be hard to identify because of the immaturity of talking but we must not assume that those processes are not happening. There is a rich, broader language of movement and gesture which EY educators need to practice in order to

understand. I aim to highlight the importance of being able to work in playful and socio-emotional musical ways, and the importance of developing improvisational skills as pedagogical tools, so that we may better understand the multimodal languages of young children.

This research is designed for depth in a particular context rather than breadth. The parameters of the research do not allow for longitude or a variety of contexts, but will add to the body of work and knowledge that is undertaken by my organisation and its wider network and, hopefully, future research.

Literature review

Ontogenesis of musicality and narrative.

Dissanayake, (2012) explores what she considers to be universal musical narratives between adult and infant, suggesting that this attunement is the basis for all later interaction between adults, including temporal arts. This is supported by Malloch and Trevarthen's theory of Communicative Musicality (2009) in which they also consider musicality between mothers and infants as the foundation of all subsequent communication.

She suggest that musical narrative originated phylogenetically in ancestral mother infant interaction (bonding between the mother and potentially helpless infant was essential for human species' survival) and happens ontogenetically in each individual pair. She posits story and music have developed beyond these roots, but in their genesis they were essentially one. She notes that with the exception of western classical music, movement is an inherent part of music, she also shows us that western perceptions of music (music learned from scores, practiced and rehearsed and something requiring a special skill that not everyone has got) is very recent. For the greater part of human history music has been (and still is) a per-formative, often improvised, communal activity. It is visual and kinaesthetic, and integrative and interactive with the community of music makers creating a single multi-modal experience. She suggests that what we call storytelling or narrative shares the same roots but in our culturally hyper-literate society, we tend to forget that narrative originates from folk-lore and oral tradition. This provides my research with an interesting theoretical lens to view the communicative behaviour of two year olds.

Dissanayake draws on Bruner (1986), and suggests he offers perspectives on thinking which throws up many questions about how we think and construct cognition, early childhood and creativity. Bruner distinguished between two modes of thought – *narrative*, or story, and *argument,* or logico-scientific. The latter attempts to objectively fulfil the ideal of formal mathematical ideas - description

and explanation. Narrative thinking is concerned with lived experience and how things feel. It deals with human intention and locates it in time and space. Therefore when used as a lens to view young children's music making, a narrative perspective roots the music into the social, emotional, physical context, rather than isolating or attempting to fit it into categorisations.

Dissanayake warns us of applying too much emphasis on logical thinking and academic success in music education. Dalcroze, in the early 20th century became increasingly distraught over the lack of expressivity in his conservatoire. He developed pedagogy around movement and interactive activities to enable musicians to once more embody and 'feel' the music and revisit qualities which are innate in young children. Dissanayake proposes his approach suggests that movement forms the basis of human consciousness (Seitz 2005). Dissanayake (2001) suggests that rhythm is a core component of communication (Trevarthen & Malloch 2009, Rabinowitch, Cross, & Burnard, 2012) and is implicit in all the creative arts. I am therefore interested in seeing how rhythm and movement are used in two year old communication and what this tells us.

Dissanayake concludes by suggesting that the narratives of communicative musicality contribute to what she describes as the five psychological necessities: intimacy or mutuality, the sense of belonging to a group, personal and collective meaning, individual and group competence, and the opportunity to demonstrate and communicate how much we care about vitally important matters in our lives (through intentional, arts filled behaviours). In terms of this study, based in western culture, nursery settings and schools are places where children become part of peer groups and develop a sense of belonging. How are these psychological necessities asked for and met by young children and what does it look like?

Offering further thoughts and perspectives on *narrative inquiry,* Barrett (2010), explores how early communicative musical identity, typified by interactive vocalisation between infants and carers, evolves as the children grow older. She investigates what happens to these musical interactions as the child constructs their identity as a musical and socio-cultural being. In terms of musical identity,

she notes that little is known of how music shapes the identities of young children, and, while some research has focused on the development of young children's musical thinking and the processes of their music making and vocal work, far less is known of the ways in which music making acts as a social function. This is the focus of my own study.

In her 3 year long *narrative inquiry* of a young girl, B we see music embedded in her socio-emotional world and her life's routines. We see her use music in solitary play and during interactions with her family. Adults use music to regulate her behaviour and structure her participation in music and other play. We see B use music as both a channel for, and an account of, her experience and mood (singing about love makes her happy) and to anchor herself to those she loves. She enacts ways of being through music - both emotionally by expressing feelings and in role play through games and playfulness.

This illuminating study focuses on a child in a middle-class home environment, interacting with parents, grandparents and siblings rather than a nursery setting. The richness of B's musical world suggests pedagogy as to how early years practitioners could support many areas of young children's development through a music-centred approach. The perspective Barrett takes is of how music is an *entity* for enabling multiple aspects of B's identity, ideas, goals and feelings. This study is relevant to my research as it shows how what Malloch and Trevarthen (2009) term as 'communicative musicality' develops beyond the intimate infant-mother interaction into broader family life and beyond; that phase between babyhood and 3-4 years which has received so little attention.

Relationships and interactions mediated by musike.

Barrett's perspectives resonate with Alcock's Australian studies of children aged two years, two months to four years, nine months (2008a, 2008b,2010), which explore how children's playfulness is mediated and distributed via '*artefacts*' - meaning material things, and also words, sounds, gestures, gaze, posture, rhythm and movement. This has interesting implications when music is

viewed as an artefact, mediating between young children. Alcock's focus is on the holistic and complex inter-connectedness of individual, group, environment and artefact. Music or *musike* is an integral, mediating element of this landscape. Musike is the ancient Greek word which encompasses all the temporal arts dance, drama, music, and poetry. She suggests in keeping with Dissanayake and with Dalcroze that rhythm underpins all forms of musike.

Young children use artefacts in a variety of processes including imagination, imitation and repetition. Using a cultural historical activity theory (CHAT) paradigm and methodology (Vygotski 1978, 1986, Leont'ev 1978), Alcock examines a number of events in young children's lives, shifting our focus from seeing individuals and *artefacts* as separate, to an awareness of interconnectedness. During each event, she observes that children, playfully involved in any one activity, may also be at the same time, partaking in several other seen and unseen activities; contributing to multiple goals. Both individual goals and group goals are concurrently enacted through playfulness. The goal of the playfulness and the motivation for the playfulness in Alcock's episodes are intertwined and involve sociability, togetherness and relationships. The *artefacts,* material and non material, are imaginatively transformed and shared across the group. Alcock's work draws on the work of Kress (1997), who, in his work on social semiotics and literacy, demonstrates how the diversity of communicative symbol systems provide complementary modes for creating meaning.

Alcock explores the meanings of the terms *art, play and culture.* While these terms defy neat definitions, they all share an aesthetic dimension and have implications of both sharing and seeing the world in new ways. She asserts that rhythm expressed in gesture, pitch and tone creates a script which is a musical narrative and can convey the emotional feelings of a storyline instead of words. These narratives are socially constructed and this is a primal way of making sense and meaning. By prioritising the material *artefact* mediation, Alcock is able to shift focus from individuals to relationships and interactions and this further illuminates the practices by which word-play, gesture musike and other non-material *artefacts* also act as mediators for shared, playful meaning.

The children used of a large range of material and non-material artefacts, mediated and connected individuals in patterns of playful communication and musike which appeared to reflect the power, imagination and goals of the players. Knowledge was transformed and shared through the artefacts which children embodied and used to characterize and convey ideas and feelings. Alcock's studies, like my own, focus on interaction. Her perspectives on socially constructed meaning, together with Kress's work below are useful and applicable perspectives with which to view young children.

Kress' (2012) perspectives on social semiotics resonate with Alcock. He distinguishes between 'culture' and 'society'. The 'social' is the domain of interaction and 'culture' is the repository of semiotic resources (or artefacts) of material and non-material kinds, jointly made through social interaction. A society is a group which works (or plays) with the semiotic resources they have created, which over time, become recognised as culture – values, meanings, knowledge and practices. In terms of my own research I am interested in seeing how young children use musicality as a social practice to define their culture within the context of musical free play.

Kress (1997), nearly 20 years ago called on the education system to interact crucially with the economy in asking fundamental questions about what dispositions will be needed in the future by children starting school now. He suggested that future environments will demand habits of innovation. Kress's work has focused on language and literacy in schools but his views on the ways that children make meaning, through an absolute plethora of ways which involve different kinds of bodily engagements with the world are universal themes. He states that if we concede that speech and writing give ways to particular forms of thinking then we should be asking if touch, feel, taste etc also give rise to specific forms of thinking. He suggests that we constantly translate our thinking from mode to mode and this synaesthesia is essential to our understanding of the world. Kress (1997) proposed back in 1997 that in the future communicational and economic world, multimodal ways of operation, which are the basis of metaphor and innovation, will become essential requirements for humanely productive lives. I terms of my own research, I wish to gain insight into the particular

forms of thinking which two year olds may be using in their bodily engagement with musical play and how this may inform our practice as adult practitioners in meeting children in similar modes.

Intersubjectivity and Vitality Affect

Stern's (1985,2004) ground breaking work on the study of infant and mother communication and human intersubjectivity uses the terms *affect attunement* to describe a reciprocal intersubjective connection between humans and *vitality affect* to describe how we sense and express experience as it arises. He has more recently extended his theory of intersubjectivity examining the importance of the present moment. The temporal arts focus on the present moment as well as on interconnectedness between players (in keeping with Dissanayake, 2012). Stern notices how participation in group rituals such as dancing or singing results in self identity and belonging. He suggests that intersubjectivity can only happen in the present moment and that present moments manifest through the domain of implicit, embedded knowledge.

Gratier and Apter-Danon (2009), study the musicality of belonging in mother-infant interaction. They propose that these dyads build repertoires of communicative motifs which grow through repetition and variation and bring pleasure in mutual understanding. They view this dynamic as a subtle balance between sameness and novelty. They liken this to jazz musicing which relies on a repertoire of licks, turn-taking, antiphony, synchrony and variations of repeated forms which constitute the culture and aesthetic within the ensemble. This resonates with Kress's ideas on society and culture and Alcock's ideas on musicing as an artefact for shared meanings. Drawing on Stern, they propose that *vitality affect* is a narrative of 'becoming' and the experience of 'now'. They suggest that the 'here and now' present, embodied experience is at the root of all understanding.

Group Music: Movment Rhythm and Empathy

Ansdell & Pavlicevlic (2009) use the theory of Communicative Musicality (Malloch & Trevarthen 2009) critically to call for a more culture-centred, context sensitive, development of the theory which works beyond the dyadic forms. Developing the concept of Community Music Therapy (CMT), they draw on Stern's (2004) work on defining intersubjectivity and his assertion that intersubjectivity must work for groups as well as dyads. They assert that Malloch, Trevarthen, and Stern give us largely undeveloped hints at what Communicative Musicality and Intersubjectivity look like in broader socio-cultural structures. They explore what this might look like within music therapy examining community music making in a variety of contexts to explore the connections between communicative musicality and collaborative group musicing. The authors define musicality as a core human capacity which affords basic intersubjective communication. They define musicing as a universal activity of music. They suggest that musicing (through CMT) can remind us what it means to communicate and collaborate.

They describe the group CMT process as beginning with individualistic playing in parallel worlds. Eventually through multiple communicative acts between members of the group, this becomes a socially and musically bonded group. The CMT perspectives of Ansdell & Pavlicevlic may help me examine the behaviours of two year olds and see what communicative musicality looks like in a group peer to peer context.

Musical group interaction or MGI is a term used by Rabinowitch, Cross and Burnard (2009). They suggest that during MGI, a participant may be having a separate subjective experience of the encounter or be part of a complex, fluid, sharing of intentions, emotions and intersubjective processes. They propose that music is a broad human capacity, a communicative medium with generic properties which can have profound social efficacy. They define intersubjectivity as a better understanding and identification with other. They conceive that music is a profoundly kinaesthetic activity and that special emphasis is placed on movement in music perception. Reynolds and

Reason(2009) find parallels with kinaesthetic empathy and the idea that mirror neuron activity enables us to experience the thoughts and feelings of others. Rabinowitch, Cross and Burnard (2009) propose that engagement in music is essentially a movement-based, emotional engagement which requires an augmented openness to emotionality. They suggest that it is necessary for the sharing of emotions during intersubjectivity. However, there is a difference between simply attending to and *understanding* each other's emotions and *experiencing* similar intentions and emotions. The authors suggest that *imitation* and *synchronisation* may be mechanisms for assimilating intersubjectivity. Imitation can be seen in the first (musical) interactions in life between mother-infant dyad and also in the way musicians imitate each other's bodily gestures. They suggest synchronisation into a pulse is fundamental in any musical interaction. It involves a complex communication and negotiation. The mutual adjustment to another person's pace may align affective attunement as well as rhythm and movement.

Rabinowitch, Cross and Burnard's (2009) work resonates with Greve's (2004) studies on friendships between toddlers in Norwegian kindergartens. Greve draws on the work of Merleau-Ponty (1994) and his theories of phenomenology of the body. She notes that toddlers are in constant bodily activity but the child is not conscious of its body and does not experience themselves as something outside or separate from the body; the child *is* the body and the world is experienced through the body. Greve therefore considers that children should be observed essentially through bodily communication.

From the diverse perspectives of pragmatics, social psychology, behaviourism, cognitive science, and computational linguistics, Gill (2007) examines the components of interaction and how they have been explored in developing interaction with technology. She asserts that there is a fundamental human capacity which is beyond technology which she terms *human entrainment*, an ability to coordinate the timings of our behaviours and rhythmically synchronise our attentional resources. She likens the expression of human entrainment through body and voice to music. Human-

technology interface is designed with a fundamental conception of listener being distinct from speaker at any point in time. However Gill asserts that in fact human entrainment entails a *parallel co-ordinated movement* and rhythmic synchrony. Developing a theoretical framework of Body Moves, Gill proposes that humans periodically entrain the movements of voice and body during communication. These rhythms firstly synchronise our joint attention enabling us to understand how and where we are in relation to each other and secondly synchronise our intentions into a single coherent collective movement in the expression of different ideas and perspectives. Gill argues a critical connection with *parallel co-ordinated movement* and intersubjectivity. Body Moves do not refer to the physical movement itself but the act the movement performs and is a form of expression and a communication dynamic. They communicate information about the communication situation rather than the communication topics; they embody intent to communicate. Importantly, Gill observes that Body Moves can entail acts which do not exist in speech and therefore her perspective could be useful in observing young children in this study.

Rabinowitch, Cross and Burnard's work (2009) is exemplified by an experiment by Kirchener and Tomassello (2009) who found that children as young as 2.5 years adjusted their drumming tempo when playing with a human partner (as opposed to a mechanical one). They argue that drumming with social partners creates a shared representation of the joint action and elicits a motivation to synchronise rhythmic activity. This also resonates with Alcock's perspectives and the way in which children use *artefacts* (in this case drumming) to make meaning together.

Flow and Piaget

Although based on an adult-led group model, Custodero's (2005) study of flow in toddlers from 25 to 34 months is interesting as her framework was applied to infants and pre-verbal children. She developed flow indicators for young children based on Csikszentmihalyi's theory of flow experience (1990). Csikszentmihalyi maintains that we are in a state of optimal enjoyment when there is a balance and interaction between challenge and skill. He suggests that children are in a state of flow

most of the time and therefore links between artists and the childhood experience are not surprising.

Custodero draws on Gibson's work on perception (1977) where he notes that an environment is perceived to have certain affordances (offerings and opportunities) to be experienced, and Piaget's equilibration process (1962) to *access* then then *transform* materials. This has parallels with Alcock's thoughts on music as a mediating artefact (2008a, 2008b, 2010) but here the emphasis is on the materials and individuals rather than the interconnectedness. She suggests that teaching for flow experience means *teaching to the possible*. Outcomes are interpreted using flow experience as a frame work for observing and analysing musical engagement. This requires a commitment to the immediate and a sense of inquiry about how the learner is defining the task. Considering flow from a developmental perspective requires acknowledging children as active agents in their learning and pedagogical practices will be reciprocal with teachers engaged in the immediate and committed to the complex and on-going inquiry of how the learner is defining the task. Custodero describes observations of flow indicators in the children's musical engagement: challenge-seeking, (self assignment, self correction and gesture) challenge-monitoring (anticipation, expansion and extension), and social-context (awareness of adults and peers). Interestingly, she notes that free movement to music generated the most social interaction between peers.

Language acquisition

In a study of language acquisition in a young child, Forrester & Reason (2006) explore the notion of 'membership': the motivation to master language and thus become a member of the adult world, able to negotiate and affect adults and common-place events through language. In our hyper-linguistic society great emphasis is placed upon speech and language. Language is power. It is something, as a culture, we place great store upon and wish our children to have mastery of. However there are huge inequalities around language, for instance inequalities of class, education, and nationality. There are differences between the linguistically articulate middle classes, whose

perspectives set the educational agendas and the equally loving and expressive but less verbose working classes. We must pay great attention to the power and powerlessness of language, not only with vulnerable young children but with all children who are exploring and developing communication and enculturation into an educational setting. My own study attempts to create an environment where the inequalities of language are lessened by asking adults to use expression and emotion primarily and to only use spoken language if directly prompted by a child. In this way I hoped to give space to allow children's voices to be heard through their chosen mediums of communication.

Methodology

This piece of research is qualitative in nature; it is a small scale, practice based enquiry by a music practitioner researcher, with the objective of investigating and understanding the perspectives of a small population of young children aged 2-3 years in a Day Care Nursery setting during a naturalistic music free play session.

This research does not seek to make generalisations but instead seeks to understand behaviour and thinking. Therefore, in order to answer the research questions effectively, an interpretivist approach was adopted.

While there is considerable literature and numerical information on the various developmental stages of two year olds such as speech, and physical and cognitive development, there is far less on their social-emotional perspectives, particularly within a day care setting. Cook-Sather, (2002) points out that while many studies exist relating to the issues affecting children, there are limited studies which directly present children's views. I found only one piece of participatory research involving children under three in a nursery setting (Bitou & Waller 2011). A critical perspective on more positivist, quantitative perspectives is that they emphasise children's '*otherness*' and developmental immaturity (James*. et al* 1998). My own positioning within this research sees children as social actors with their own experiences and their own understandings of childhood (Farrell *et al,* 2002). I wish to explore children's competences and this small piece of research seeks to gain better understanding of children's perspectives.

In contrast to positivist approaches to research, interpretivism is a perspective that emphasises gaining a detailed insight into an issue rather than being able to make

generalisations about the world. Interpretivist research also acknowledges that there may be multiple explanations for actions. Comparatively, quantitative research seeks to construct universal generalisations about large samples; this positivist perspective is traditionally scientific in nature and focuses on gathering numerical data often under experimental conditions (Punch, 2005). Dunn (2005) emphasises the need to carry out research that acknowledges how children grow and develop in complex social worlds; the need to carry out research in situations which have emotional significance to children and, the need to observe children in the context of their everyday lives as opposed to studying their responses to experimental situations. Hughes (2001a) argues that people constantly make sense of their social and material situation through a complex cultural framework of shared, socially constructed meanings and that our understanding of the world influences our place in it. Therefore by studying real life situations we study people in an embodied context which reflects real life complexity.

Qualitative research relies on personal interpretations of the data and findings made by the researcher and the lines of enquiry are often established through the values, interests and perspectives held by the researcher, making qualitative research essentially subjective in its very nature (King and Horrocks, 2011). It must therefore be acknowledged that the researcher's opinion is one of many possible perspectives (Mukherji and Albon, 2010), and this must be accounted for when assessing the reliability and validity of the findings and analysis of data. (Thomas, 2009)

Research design

The methods chosen for the project aim to gather perspectives through a *flexible* design. Robson (2011) proposes the essential characteristics of a flexible design include the

presentation of multiple realities, an evolving design, the researcher as an instrument of data collection, and a focus on participants' views. The researcher is active and engaged in the lives of the participants involved; a participant observer approach which yields depth rather that breadth.

Robson proposes that there are three main threats to validity in flexible designs; *Description* is incomplete or inaccurate, *Interpretation* is imposed rather than emerging through the research, and the *Theory* not encompassing alternative explanations of the phenomena being discovered.

The aims and scope of this small scale research project rule out quantitative, positivist approaches. Quantitative data of young children's communication would not yield useful data on their perspectives or the immediate 'in the moment' detail of the social context enveloping their interaction. Quantitative data would require a definition of communication in order to quantify it, whereas I wish to actually explore the natures and definitions of communication.

My position within the research is situated centrally in the interpretation and discovery of the knowledge. Thomas (2009) posits that interpretivist research assumes that knowledge is situated in relations between people – *situated knowledge*. My role as researcher and practitioner of music and arts with young children positions me subjectively within the research, rather than as an objective dispassionate observer. My own life experiences bring my perspectives to the research and this is made transparent from the outset.

Research perspectives

Action research

Action research was considered as a design frame. Action research can be described as a living inquiry which focuses on actual rather than abstract practices. It is collaborative in nature and Improvement and change are regarded as key components. Action research operates in a series of cycles each involving reflections on practice (Mukerajhi and Albon 2010, Thomas 2009). It is distinguishable by its purpose, which is to influence or change the focus of research, Robson (2011). I considered the possibility of my research looking at how peer to peer communication could be enhanced in a musical free play session. However I decided that examination of what (if any) communication was happening was, in itself, an important piece of preliminary research and which would need to precede any transformative work. Furthermore the scope and timescale of the research was too short to consider full cycles of action research. However it is my intention and hope that this study will inform and transform practice and lay the foundations for further research.

Ethnography

Although this research was too small and short in scope to be considered to be an ethnographic study, it has similar aims, in particular, illuminating children's perspectives in depth.

Ethnography is a qualitative approach with a long history deriving from the disciplines of social anthropology. It aims at providing rich and detailed data and interpretation about people in particular socio-cultural contexts. Participant observation is usually seen as a key tool in ethnographic research (Corsaro 1985). Ethnography is associated with thick descriptions and the interpretations of them. There is a focus on a particular *naturalistic* setting and within this setting there is attention to the full range of social behaviour. A range of methods can be employed in order to understand the social behaviour from inside the

setting. There is an emphasis on gathering as much detail as possible which depicts the full complexity of human interaction. This is seen as more important than being able to make generalisations (Pole and Morrison, 2003; James, 2007). Ethnographers try to see beyond the meanings and significance certain phenomena have for themselves in order to understand the significance to other people; they are positioned as an instrument of investigation. Criticisms of ethnography include positioning the setting and participants as 'Other' to the dominant adult-centred culture.

Case study

Thomas (2009), describes a case study as in-depth research into one case or a small set of cases. Mukerajhi and Albon (2010), note that a case study is not in itself a method but rather an approach. Stake (1995) identifies three different types of case study: *intrinsic* studies are used to obtain deep perception of an individual case; an *instrumental* case study is a tool to help the researcher gain more understanding about a general phenomenon, and a *collective* case study or multiple case study design is one which contains more than one case.

The aim of a case study is to gain a rich detailed understanding of the case by examining an aspect of it in detail. Generalisations are not possible in case studies and detail and contextual understanding is essential. Geertz, (1973) coined the term 'Thick Descriptions' as a way of capturing and analysing behaviour, interaction, expression, movement, and feelings. Denscombe, 2002, proposes that case studies can give information on both relationships and processes. However the positivist, standard view of science has found case studies problematic in the past. Robson (2011) warns that the term case study carries

surplus meanings but concludes that many flexible design studies can be usefully viewed as case studies.

The design of my own study is, to a large extent, an intrinsic case study of a group of children in a particular context but it draws on ethnographical field work methods.

Ethical considerations

This research is intended to be worthwhile and beneficial and the concept of young children's competency is an underlying factor. I did not expect that my role of participant observer or the musical free play environment in which the observations took place would have a negative effect on the children in any way. However, reflecting on Robson's 10 questionable practices in social research (2011), considerations of informed consent with children so young are problematic. While Mukherji and Albon, (2010), argue that children are more competent than Robson sometimes suggests, they maintain that very young children and babies are not in a position to sign a consent form and they are unlikely to understand many aspects of the research until it is actually happening. However it is important that we do attempt to gain children's direct consent and we need to reflect on what this issue means for research with two year old children. Langston et al (2004) demonstrate that young children and babies are able to give or withdraw their consent to research in a variety of ways, for example refusing to engage with the researcher, becoming abnormally quiet, turning away and crying or refusing to engage with the materials used in the study. Therefore the researcher needs to be sensitive to the moment to pick up on children's cues. Mukherji and Albon, (2010) suggest that informed consent with very young children is regarded as an *Ongoing Achievement* as opposed to something gained in advance.

In obtaining informed consent from parents, issues of power need to be reflected on. This helps to ensure that parents do not feel coerced into giving consent. The right to withdraw consent at any time should be greatly emphasised. Crowe et al (2006) emphasise that researchers paying greater attention to issues of informed consent is contributing to better quality research. It establishes a more equal relationship between researchers and participants and inspires greater confidence in participants.

Hardcourt and Conroy, 2011, put forward the notion of conducting research *with* children rather than *on* them. They suggest that research which seeks to involve or include children should consider the conceptualisation of children and childhood. Mukherji and Albon, (2010), suggest that the vulnerability and '*otherness'* associated with being young, small, and less experienced can result in children being treated as *objects* rather than *subjects* in research. Lahman (2008) takes the stance that children compromise one of the few cultures which are always 'othered' or unfamiliar in research. This is intensified by adult memory of childhood, by the close proximity and overlapping nature of child and adult cultures and by the power adults have over children. Children of lower classes (or racial minorities, or who are disabled) are being investigated primarily by white, middle-class, able-bodied researchers who hold power in society. She suggests that the moment we think our research has captured an understanding of childhood we are on shaky ground, and only by maintaining a posture of questioning findings, reflexively considering the research process, acknowledging the power of our own memories of childhood over research interpretations, and respecting children, can we gain firmer ground.

On the subject of participatory research, Waller and Bitou (2011) warn that despite popularity the approach is problematic. Their key message is that the research design and

the relationships confirm real participation, rather than the tools. They further suggest that participatory approaches raise serious dilemmas around ethics and power as the interpretation of children's perspectives is invariably made by adults. They argue that participatory methods should be grounded in ethnographic studies and not seen as replacements for them. This is exemplified, and serves as a warning in my own study, by Bitou and Waller's (2011) participative research with under three's, in which the researcher's own interpretation of a child's activities captured on video proved to be very different from the child's own perspective.

This study attempts to involve children as interpreters as well as participants to be studied. It also takes into account the voices and perspectives of working class parents, practitioners and researcher. Its purpose is to understand children better and so advocate for them. My own perspective sees children as competent and holding the keys to their own learning .

Methods

The research adopted participant observer methods using video observation.

All children taking part were between 24 and 36 months attending a dedicated setting for two year olds. The sample size was a group of up to ten children allowing for absences and day to day variations on numbers.

The sessions took place in a large round summerhouse. The children were used to going into the space daily for musical activities which included both adult-led group work and child-led musical free play. By using this space I hoped to study a very naturalistic environment familiar to the children and part of their daily routine. After the pilot session the musical equipment remained stored in the summerhouse so the children could have access to it in between sessions.

During each session three sample children were chosen randomly and filmed for 10 minutes each. I aimed to capture an individual child's experience by focussing a camera on them for this period of time. In addition, two fixed cameras were focused on three large instruments – a wooden xylophone, a large log drum and a floor drum, each big enough for several children to play at once. By using both fixed and moveable cameras, I hoped to capture individual and community behaviours. The sessions all took place in the same environment and at the same time. They were limited to two stimuli – floating scarves and three large instruments big enough to allow several children to gather around. This was intended to enable me to see the responses of the children in two specific 'conditions' and therefore would give me the possibility of drawing over-arching themes across different sessions.

Each session began with five minutes of adult-led group work with a piece of lycra. By singing and moving together I hoped to engender pro-social behaviour and a sense of community, empathy and fun (Kirschener & Tomasello 2010). I also hoped this would free up the children's voices. This short introductory activity transitioned into free play with scarves (the first stimulus) at which point the fixed cameras were turned on and child number one was filmed. After ten minutes the large instruments (second stimulus) were put into place. By changing the stimulus during the session I hoped a naturalistic flow between activities would be created and the children would remain stimulated.

All staff were asked to keep to a strict protocol; to respond to children naturally and authentically but not to initiate interaction. They were asked to use facial expression and voice play rather than talking whenever possible. Staff are used to working in this kind of way so again, this behaviour was naturalistic. They sat around the edges of the space, out of camera view but accessible to children for interaction, play and reassurance. Inevitably, children would frequently invite practitioners and music workers into camera shot to play on the large instruments

Video data of 12 focus children and 9 fixed cameras was captured over five sessions – 6 hours, 30 minutes of footage in all. The set-up involved placing the equipment in the middle of the room and placing the adults around the outside.

Analysis

Raw video data was reviewed for clearly observable peer-to-peer interaction. All events which included adult interaction or influence were discounted as the question focussed on child-child interaction only. In all, 48 peer-only interactions were recorded over all three

cameras. (Table 1: pg 36 and appendix 1: pg 63) Thirteen of these interactions were captured twice on different cameras. Ages of children were analysed (Table 2: pg 38). Interactions were measured for length the shortest being five seconds and the longest being 1 minute 40 seconds (Table 3 pg 39).

I narrowed down these initial 48 interactions to 10 samples of the best captured interactions (appendix 2: pg 68). These samples were chosen because they were the clearest captured and from the first review of the raw data I decided that they showed interesting phenomena which were worth gaining additional perspectives on.

My criteria for narrowing samples down were: - the potential to reveal the most pertinent information relating to my research question; duration and clarity of film footage; additional contextual data, such as information on what happens before the interaction, or an episode captured by two cameras.

Triangulation is an important process in ensuring research is reliable and valid, it guards against researcher bias. In order to triangulate the findings, video data of interactions was shared with practitioners who took part in the research sessions, early year's music specialists, and other early years' professionals to gain further interpretations and perspectives on the nature of the children's interactions and behaviours.

The 10 chosen samples were analysed for frequency of behaviours. A list of behaviours was created by asking a panel of early year professionals, music specialists and practitioners "what is happening in this interaction? . Their insights and observations were formed into a list of 13 behaviours

The footage was re-reviewed and behaviours were assigned to each clip. I did not lead or influence the choices or discussions during the second session when behaviours were assigned to the interactions. This gave an overview of the frequency of certain behaviours. Table 4: pg 41 .

An edit including the 10 samples was shown in the summerhouse on a large screen for the children to gather their reactions and perspectives. They were able to get up close to the footage. This session was filmed. Parents were invited to a second screening and I gathered further perspectives from them. By gathering children's perspectives and screening the video footage for them, I hoped to involve them in the research processes so they became active members. (Hardcourt and Conroy, 2011) Playing back video data can help children recall and give reactions to an event, it shows context and carries evidence of gesture, facial expression, and musical interaction (Robson, S. 2011). With children so young this seemed an effective way to involve them in the research. The sessions were filmed and reviewed and description and reflection of the footage forms part of the interpretation.

From the 10 samples, three interactions were selected to study in greater depth. They were micro-analysed qualitatively through a process of repeated reviewing. Three samples seemed to be the maximum for the scope of this study. Combined they seemed to have the most potential to shed light on my research questions as they involved different phenomena and they were very clearly captured on one or two cameras.

Problems, dilemmas and reflections.

Even with three cameras, the behaviours and intentions of two year old children are very difficult to capture. The children moved around the room a great deal so that consistent

footage of their expressions and emotions are impossible to gain. Also what a child may be noticing is not always within the camera shot.

There are many, many encounters which could be or might be strong kinaesthetic interactions but it is impossible to tell for certain; much is open to interpretation. Certainly the negotiations over space and close proximity would suggest that children have great awareness of each other and that micro interactions are happening all the time. However I stuck rigorously to what could clearly be seen on camera as an interaction or affective group action in order to increase the validity of the findings.

My intention was to gather interactions which did not involve adult practitioners. However in a tight space with several adults in the room this is also problematic. While the practitioners stuck to the protocol of responding to children but not initiating play, the children, having no such protocol, divided their attentions equally and often invited adults into their play. As practitioners we wanted to give out encouraging signals to the children so it was not possible or desirable to be neutral observers. While a few children naturally gravitated towards peers, most interacted and looked to practitioners regularly. Therefore an interactive event which appears to be between peers could be influenced by glances to and reactions from nearby adults. Usefully, this highlighted how children draw on everyone in their sphere of encounter.

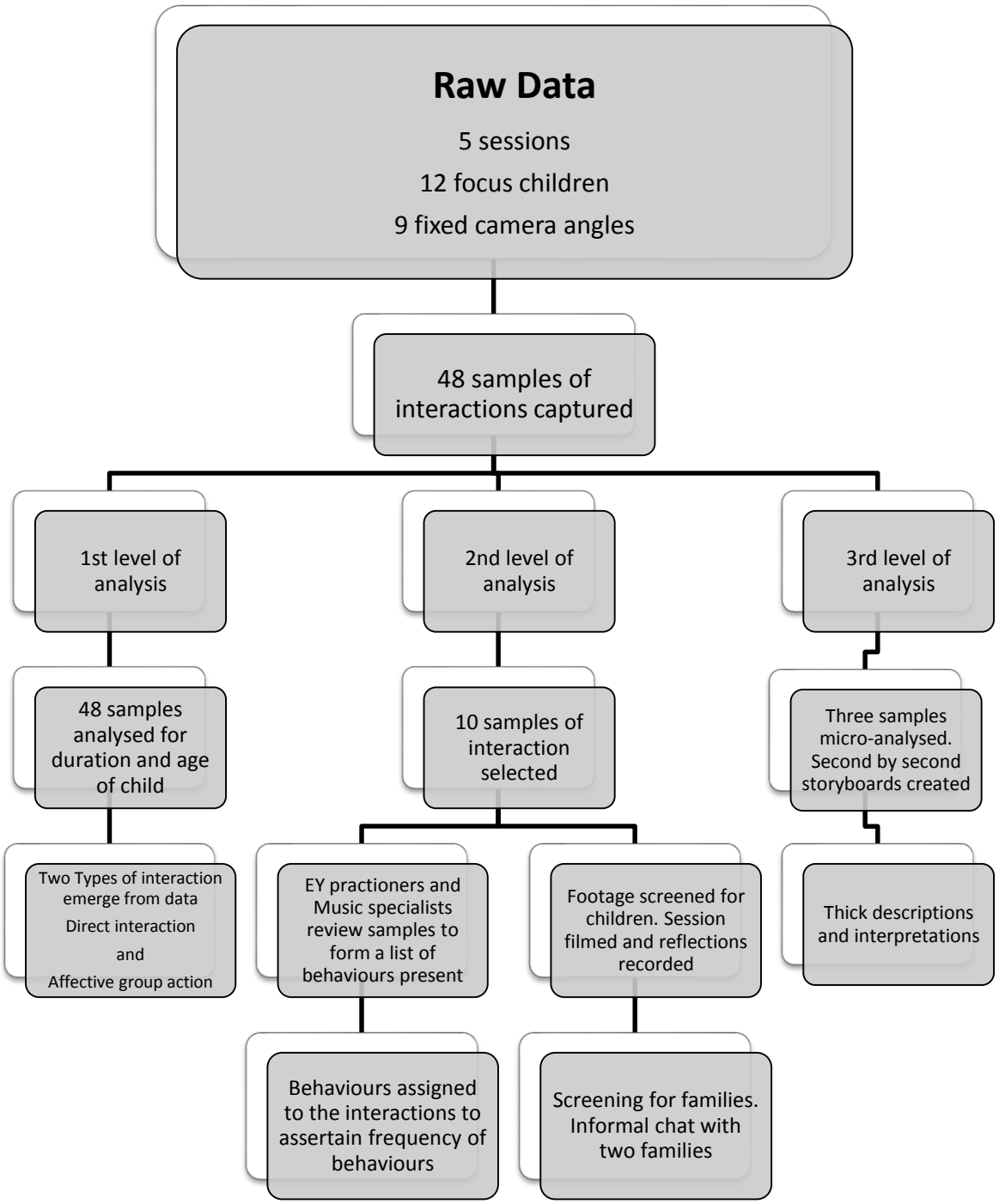
I had hoped to be able to compare behaviour during two stimuli – scarves and three big percussion instruments. Unfortunately I collected less data then I hoped during the scarves session due to a variety of reasons. Two focus children filmed during the scarf sessions had turned 36 months and were discounted from the data and, during the final two sessions, the children were aware of the large percussion instruments and began to gravitate to them

when free play commenced. I decided to allow this in accordance with a free play session as stopping the children would have necessitated becoming directional and this would have become counterproductive. There are some fixed camera samples of scarf based interaction involving one focus child and some captured on fixed cameras, but not enough to make comparisons between stimuli.

Although the children and family screenings were very valuable, on reflection, I wish I had also had intimate viewings with some of the children, perhaps in a quiet corner with a laptop. I think this would have given more insight into their perspectives.

In all, this research raised many more questions about the different possible contexts for music practice and research with young children, and the need for continuing study.

Fig 1: Flow Chart to show analytical procedure



Findings and discussion

First Level of Analysis

Direct Interaction and Affective Group Interaction

The first level of analysis over all 18 interactive interactions yielded an interesting overview of behaviours. Firstly an even split of types of interaction Table 1 – *Direct Interaction* and *Affective Group Action* over both cameras is shown.

Table 1: Number and type of interactions observed over 5 sessions

	On focus child footage	On fixed cameras (not including duplicated footage)	Total (not including duplicated footage)
Number of Events involving Direct Interaction	16	9	25
Number of Events involving Affective group action	14	9	23
Total	30	18	48

As I initially reviewed the footage, I perceived that two distinct types of interaction were occurring. I termed them *Direct Interaction* which seemed essentially dyadic and single focussed in nature and *Affective Group Action* which seemed to embrace group mutuality. Direct interaction was when children directly interacted with each other; passing a beater, smiling or mirroring. Affective group action was a behaviour phenomenon by one or more children which affected and drew other children in, such as calling out, moving or playing an instrument.

Affective group action is in accordance with what Alcock (2008) terms *musike*, Rabinowitch, Cross and Burnard (2009), define as Musical Group Interaction or MGI; Stige, Ansdell, Elefant, Pavelicevic, (2010) call Musicing and Dissanayake (2012) describes as group mutuality. A recurring example during the research sessions was the use of a "Stop" "Go" game. This probably originated as an adult led activity but it had been recreated by the children and was often, but not always, engendered by Pip. The shouting of "Stop!" and "Go!" became more important than the meaning. A child would burst into a group playing on one of the instruments calling out "Stop!". On "Go!" frenetic playing would ensue and "stop" and "go" would be shouted across the room. Other children would be drawn to the activity. There would sometimes be what Stern (1985) terms a vitality effect: a brief surge in emotion accompanied by smiles and laughter and a flow of simultaneous group playing or shouting. The rules were flexible and it seems more to do with group musical play of words, movement and instrument play than of actual stopping and going.

A deficit view of children's competences might define Affective Group Action as proto-interaction; a link between parallel play and direct interaction. It could be argued that children are learning to make direct communication but lack the necessary skills to do so. However I would argue that affective group action is a complex form of human group interaction in its own right and one linked with the temporal arts (Young, 2011) and should not be overlooked. Bradley's (2009) studies with 9 month old babies in trios suggests that when they are in the same intersubjective space, there is a clan-like or group mentality which is different in form to a dyadic interchange.

Direct interaction tends to be dyadic in nature and, in western cultures, dyadic interaction is prevalent over community interaction. Rogoff (2003) suggests that western culture encourages children to pay attention to one thing at a time. She notes that children from other cultures who participate in complex socio-cultural events have heightened sensitivity to simultaneous information from many sources. This in turn may facilitate learning to anticipate the plans and directions of a group. Moreover, Dissanayake (2001, 2012) proposes that belonging to, and acceptance by, a social

group is a psychological human necessity. It is therefore arguable that even within a dyadically orientated education system there needs to also be a focus on, and time and space given to, the facilitation of group interaction so that children may develop these competences.

Age of Participants

Table 2: Age of Participants and number of interactions

Age of children	Number of focus children over 5 sessions	Total peer interactions observed during focus session	Children who were not observed to engage with peers during their 10 minute focus session
24-29 months	3	9	1
30-36 months	6	23	3

There were more children over 29 months who interacted during their 10 minute focus session and more interactions observed overall in children over 29 months. Of the children who did not interact, two children, both 30 months old, were concerned with their own solitary and exploratory play agenda and carefully negotiated and avoided other children interacting with practitioners only. This movement around and beside peers was interesting in itself as it necessitated a sophisticated kinaesthetic awareness. One girl (28m) sat alone and watched action in the room for the full ten minutes with interest and attention. PossThe footage did not allow us to see details of what she was looking at but the **Sample 1: micro-analysis – T.T's Laugh**: pg 45 of another child watching peers gives us some insight as to what empathetic processes may have been happening.

Stern(1985) points out that a child learns vitality affects from their interactions with their own bodily processes and by watching, testing and reacting to the social behaviours which impinge on and

surround them. Stern also notes that only when a child begins to engage in an interpersonal dialectic with other socialising mediators such as peers, can he or she broaden the meanings which have previously been confined within his relationship with his primary carer. My own feeling is that in a nursery setting, children know how to elicit a standard playful response from practitioners. They practice and try out games such a peek-a-boo, they bring their creations and play to the practitioner who scaffolds their thinking in a predictable, adult way. However interaction with peers is not predictable and a hit-and-miss process of attunement, play and interpersonal exploration takes place. To see this in its complexity involves careful observation on behalf of the practitioners.

Duration of Interactions

Table 3: duration of Interactions	
Length of episode	Number of Interactions
0-5 seconds	12
6-10 seconds	8
11-20 seconds	12
21-40 seconds	10
41-60 seconds	3
1-1.30 minutes	2
1.31-2 minutes	1

Most interactions, direct and affective lasted less than 40 seconds with just under half of those less than 10 seconds. Interestingly, the three longest interactions have a less obvious observable occurrence of *vitality effect* or emotional surge. This musical free play environment, with its smallish space and particular arrangements of instruments seemed to engender short, high energy interaction and attunement. Children moved about the space trying things out, becoming involved

in personal ideas and being drawn briefly, but intensely into other children's ideas. Gratier and Apter-Danon (2009) suggest that vitality effects are comparable to musical phrases in terms of their average duration (2-5 seconds) and shared experiential qualities. They suggest that they signal 'moments of meeting' and the potential for intimacy and friendship grows richer within authentic encounters with trustworthy partners. Through a playful, non directive, musical environment we are equipping children with communicative tools which work with their communicative competences and which they are able to use to form friendships and shared meaning together.

The setup in the circular summerhouse did not afford much private space for more intimate interaction between peers. The scarves and instruments were placed in the middle of the room. This may have created a barrier to less confident children who on the whole tended to stay near practitioners. The set up often felt busy, stimulating and noisy and while this was legitimately observing a typical free play session, it did raise many thoughts on the effects of different contexts.

Second level of Analysis

See also appendix 2: pg 70.

Adult Panel

The left hand column of this table shows the behaviours that a panel of two early years professionals, a family support worker, a children's centre administrator and three early years music workers saw happening in ten selected clips. The right hand column show how often a similar panel saw the behaviours occur in the same clips.

Table 4: Frequency of behaviors over 10 selected interactions	
Behaviors present	Frequency over 10 interactions
A. Spontaneous group movement, play or voice	7
B. Negotiating objects and sharing	5
C. Watching and copying	9
D. Pair mirroring	5
E. Following or moving after a Peer into an activity	6
F. Instigating a game	9
G. Children deeply involved in activity which draws other children into their experience	8
H. Responding to a sound a peer is making	10
I. Exuberance	9
J. Laughter, smiles, brightening face	10
K. Eye contact	6
L. Voice play	9
M. Word Play	5

The members of the panel were surprised by the amount of detail and behaviours present in a short interaction. They felt that their level of understanding of what young children were doing grew as a result of watching the clips. They also felt that the method of video analysis was a valuable tool to understanding children better. Each clip was played several times and the list of behaviours was developed over one session and assigned to the clips over another.

Having been present with the children in the research sessions myself I knew my subjective experience of observing and interacting as an adult often missed the subtle, in-the-moment exchanges between peers that we were seeing on film. Even the music worker who filmed the focus children during the sessions felt that most of the interaction she shot happened so quickly among multiple other stimuli that there was no time to reflect until reviewing the footage. She knew she had caught something but not in detail.

This highlights great differences between the perceptions of adults and children. What could seem superficial behaviour on the surface, what Truss (2013) describes as meaningless rushing around, is in fact rich with detailed complex interchange and, in my view, when viewed with appropriate tools, shows children as competent communicators who use a variety of social and emotional tools to make meaning with each other and the world around them. It is also worth remembering that this study looks at interaction between peers only and does not take into consideration the other equally important and rich behaviours such as solitary play or practitioner/child interaction which were also going on at the same time.

The most common behaviours seen and listed by the EY specialist panel were *responding to sound*, and *laughter, smiles and brightening face*. There are 5 exceptions to *laughter, smiles and brightening face* over the total 48 interactions and these are all to do with altercations over beaters. This suggests that children find making musical connection with each other very enjoyable. Also *watching and copying*; *instigating a game*; *drawing others into play*; *exuberance* and *voice play* were present in most of the interactions.

Less frequent behaviours seen by the panel were *negotiating objects and sharing; eye contact* and *pair mirroring,* Pair mirroring occurred mostly during dyadic interaction as did eye-contact; they are also common features of child/adult interaction. As seven out of ten of the selected interactions were affective group action rather than direct action this might be expected. Word play was not frequent and only the repeated use of the “Stop! Go!” game makes the word play score as high as 5.

When used, words were used musically, as artefacts, to play with and cohere group action, meaning was negotiated not fixed. Words were repeated as mantras and song-charms. The effect of saying or singing or shouting a word was tried out by children on their peers. This is exemplified in **Sample 3: "Hello!",** below pg.51.

The frequency of affective group action interactions among two year olds indicates that they have competences in the ability to tune-in to multiple group member behaviour. Young (2007) reminds us that modern technology and its multi platform, shifting, overlap of information has much in common with the way young children play which echo's Kress' (1997) questioning of what attributes and dispositions children will need in the future. Therefore there is tension here: on the one hand the governmental and educational agenda of school-readiness – i.e. single-focused attention so that the child can be integrated into a linear, singular-attention education model, and on the other hand, a child-centred, child-as competent pedagogy which acknowledges multi-focused attention as being more appropriate for the 21st century.

The Children's screening

> *When the clips were screened for the children, they observed intently, for a full 7 minutes and responded with similar behaviours to the behaviours on screen. Present from the research sessions were Fred, Tilly, Amy, Baz, Suzie, Pip, Jenny and Billy. After seven minutes children began getting up and interacting with the screen and the session became increasingly physical. By 15 minutes the children were moving around the screen and the room returning to look frequently. After 20 minutes they began going elsewhere in the setting returning less frequently. However during this time two children Jenny (26m) and Billy (26m) sat with practitioners and watched consistently (Jenny had been a focus child during the pilot session and had spent the entire session playing beside a practitioner often observing peer action. In subsequent sessions she had been observed involved in affective group action and direct interaction with Pip).*

After 30 minutes, Pip returned and initiated a reproduction of the set-up on the film by uncovering the xylophone. This was an unexpected event. On this impulse the three instruments were placed in front of the screen. At this point Jenny and Billy got up and played on the instruments independently until the end of the session at 37 minutes. During this time they occasionally looked at the screen, and can be seen to exchange smiles 3 times. Billy moved to where Jenny was playing 4 times. They continue when joined by Pip, Amy and Suzie.

The children's attention to themselves on the screen, showed an understanding and empathy towards themselves and other group members. To a certain extent they behaved in similar and complementary ways to their on-screen counterparts. For example, Baz (30m), who had been highly involved in his own personal explorations during the research sessions, and had often seemed to find interaction frustrating, left the screening after two minutes. Pip, (33m) who instigated and was involved in much group play events during the research sessions, was the first to stand up and interact with the screen, calling out "it's me!", "its you!" extending the screenplay to real life. I had not seen him so still or quiet watching the initial minutes of his watching the footage. He then responded by becoming animated, physical and vocal; he initiated new activity. Amy (33m) beamed at clips of herself beaming, turning and smiling at peers making empathetic, friendly connections.

The initial rapt attention of most of the children and their subsequent animation and high spirits showed an understanding of their experiences within the clips. I hope it also conveyed my respect and appreciation for their participation. The replication of the instrument set up by Pip was an exciting finale. It told us that he wished to continue and imitate the music making, that he enjoyed it and was inspired by the film footage to do it some more.

The emerging interaction between the younger children, Jenny and Billy was also interesting. It demonstrated that the children had enjoyed the musical free play sessions, that they felt motivated

and enabled to reproduce them and that they enjoyed interacting with each other. All in all the screening was an extension of the children's experiences and interconnectedness.

A screening for parents took place on the same day as the children's screening just before pick-up time. The children were also present. As the footage played I talked through it a little describing what I and the panel had found interesting. Parents and children enjoyed watching together and Pip's family and Amy's mother chatted to me informally afterwards about their child's musical life at home and how music in all its forms was important to their children.

Pip's mother, father and his three older siblings, who came out of school specially, attended the screening. Music was a large part of their lives, mainly from T.V. and the internet. Siblings were aware that Pip was a 'noisy boy' and this was playfully encouraged and a source of pride. Amy's mother has been attending music groups at the children's centre since Amy was a baby. She was aware of Amy's strong social competences and friendliness. She also felt that music was an important part of Amy's home life.

Several parents asked for copies of video footage demonstrating their interest in the research and their children's competences.

Third level of Analysis

Micro-analysis of three selected interactions – see also appendix 3: pg 73.

Sample 1: T.T.'s Laugh

This sample gives a valuable insight into a young boy's sense of empathy towards his peers. T.T was a shy child of 27 months. During the research sessions he attended and his focus session he did not directly interact with peers. He was self contained and absorbed when playing with or besides a practitioner and he found group interaction interesting and would watch but did not join in or move toward it. He was delighted when adults known to him engaged him in playful games.

T.T. is standing by the Log Drum, he is posting a variety of beaters in the holes (placing them in thin end first so that the handle goes into the drum and round bit sits on top) and looks up frequently as vocal sounds of laughter and voice play are heard across the room. He drops a beater and picks it up again. He has become attentive to the sounds of group playfulness across the room. There is laughter and the sounds of a game. He leans on the log drum and looks down and a two note scream-laugh is heard, roughly a $D_7 > C_7$. T.T. watches intently smiling. The scream-laugh is heard again. Immediately T.T. straightens up, raises his beater in his left hand and looking down strikes the log drum. As he does this he smiles and laughs and makes an exact copy of the scream-laugh. His face looks joyful. He posts the beater while looking on and appears to sigh while making a sound similar to a sighing sound which is also being made by the unseen players. As he looks down he gives a little chuckle and then stops smiling and becomes absorbed in his posted beaters. Both T.T.'s mimetic actions and the sounds of play subside and seem to conclude.

This short episode shows a child on the periphery of peer-action, contributing to the group through sound. He empathetically shares the emotions of the group play off-screen and this can be seen through his emotional expression and through the pitch exact copy of the scream-laugh. The scream-laugh represents a kind of climactic peak to the off-screen play and also to T.T.'s attuned contribution. While his physical presence and attention may not have been noticed by peers, the sound of his voice added to the collective aural narrative of the playful group interaction. The episode resolves with a kind of sighing movement and sound. He gives a little laugh as he continues with his solitary involvement. While familiar in its narrative shape *of Introduction, Development, Climax and Resolution* (Malloch and Trevarthen 2009), this episode gives fascinating insight as to how a young child is attuning while physically on the periphery of a group. The scream-laugh is the artefact which connects T.T's experience and goals with the off-screen group. It enables him to feel and express interconnectedness with others playfully, while remaining where he feels comfortable. Alcock (2008a, 2008b, 2010) reminds us that children involved in one activity may, at the same time

be partaking in several seen and unseen activities, contributing to multiple goals. T.T's goals here may possibly include belonging, collective meaning, demonstrating how peers are important to him, safety (by remaining by himself), independence and exploration and his competence in voice play and playing of the log drum.

T.T.'s behaviour clearly demonstrates empathy towards his peers. His attention and subsequent body language and vocalisation are not only an expression of his understanding and identification with the others but may be enabling him to experience similar intentions and emotions, Rabinowitch, Cross and Burnard (2009). Most interestingly during this episode T.T. asks for and receives no communicative reward directly from another person. His pleasure and connectedness are generated from his observation of, and empathy with, the activities of others who are not interacting with him.

Sample 2: Milly and Pip.

In this episode, we see a musical narrative of negotiation as two children adjust to each other. Pip (33m) is a high-energy boy who would play within the free play environment with a full bodied exuberance. His behaviour often had the effect of creating an 'event' as other children would copy his movements or high intensity beating or watch his activities with pleasure. He vocalised a great deal using words and fragments of songs and moved around the room frequently, briefly checking in with practitioners. Milly (30m) was very interested in engaging with the instruments but found peer intervention sometimes frustrating. I have split the interaction into a series of movements.

Movement1

Milly has just arrived at the Xylophone. She has a beater in each hand and she plays a steady rhythm quite fast using both hands alternately. Pip approaches on Milly's left side, reaching in to play. He holds a single beater and plays in a different rhythm to Milly, making a rising "ee e ee ee!" sound and speeding up as he rises in intensity. What he plays does not seem to

have any connection with what Milly is playing. Milly immediately moves sideways blocking Pip out with her body and arm so that he is no longer able to play.

Pip vocalises an "oh" and moves around the xylo until he is opposite Milly. He continues his playing and sings a repeated "Pellies up and down" refrain. Their playing becomes more 'tuned in' and reciprocal, Milly watches Pip and they make eye-contact. Pip stops beating and just sings and moves gesticulating with his beater. Milly smiles at him; she keeps the rhythm as she beats, she makes a dance-like movement sideways to her left and vocalises an "aah" sound. She stops looking at Pip and concentrates on her playing.

Movement 2

Pip takes his beater in both hands and speeds up his song, beating frantically and jumping up and down to his beat and shouting the words. Milly looks at him, smiles and attempts to match his playing by speeding up her beat. She starts to play with both hands at the same time instead of alternately. She also vocalises. Suddenly Milly turns her head to the side. Both children play a few more beats and then, simultaneously stop playing.

Movement 3

Pip raises his beater until it is behind his back. He looks around, there is an anticipation of him bringing it down again. Milly rocks from side to side, then begins to play as she moves for six slow beats. On the 4th she turns back to Pip. On the 6th beat he brings his beater down and plays fast with an "AAHH!". Milly copies his playing and vocalisation. There is a musical coherence in the playing. Callum screams and approaches laying both arms along the xylophone so that playing cannot continue. Milly and Pip stop playing and look at him.

Movement 4

Pip raises the beater behind his back again. After a beat Pip vocalises something like "go" and he and Milly simultaneously play again, without looking at each other. Callum has to quickly withdraw his hands as Milly plays widely from side to side. However after a few beats Pip starts posting his beater at the far end from Callum. Callum screams again. As he does so Milly moves her beaters as if to post by Pips. She fumbles a beater and Pip attempts to take it. She recovers it and they both walk away in different directions.

This dyadic interaction is a narrative of negotiation between two strong minded individuals. They temporarily attune and this can be seen and heard through their musicing. Milly, although younger, has a high level of skill in playing the xylophone. And Pip has a high level of exuberance.

In the first movement we first see an un-attuned collision of separate agendas and playing styles. Both children are intently focused on their separate behaviours and goals. Milly has chosen to play the xylophone alone and Pip has been interacting with the whole room and the all the people in it. Milly's physicality is measured and steady; she seems to be listening to her own playing and applying her musicianship. Pip bursts in on her without awareness and is rebuffed physically. Milly's physical stance beside the xylophone enables her to own the space, her current goal. Pip's response is good natured, he sings his response, an "0h!" which could simultaneously be an expression of "whoops!", or an apology. With continuous movement he moves opposite Milly beginning his 'Up and down' song. His vocalisations express his exuberance. Milly chooses to engage with him. She looks at him and smiles, and interaction can be observed in the sound of their playing and singing, their bodily movement and their emotional expressions. Milly becomes more animated, vocalising and making a stylised, dance-like movement. There is a surge of energy in the playing, then Milly becomes pre occupied with her playing, looking at the xylophone.

In Movement 2, there is a readjustment and possibly an attempt on Pip's behalf to re-engage Milly's attention back to him by raising intensity and speed of the pulse. This works initially and a reconnection is made, but Pip's intensity seems to become too much for Milly and she turns away.

However, in Movement 3 Pip picks up on this and stops playing. The children readjust, Pip with the beater behind his back in an anticipation game and Milly playing slow side-to-side beats. They simultaneously start to play and vocalise, coherently demonstrating an attunement which is repeated again after Callum interrupts them. Their different movement motifs: Pip's up and down, explosive, single handed beating, and Milly's side to side, solid, measured pulse, complement each other briefly finding common ground and mutual pleasure.

We see what Pavlicevic and Ansdell (2009) describe as the isolated individual musicing of parallel worlds become focused towards companionship. There is an ongoing narrative of connection, separation and reconnection within a series of subjective and intersubjective experiences. In each of the 4 movements we see variations of *introduction, development, climax and resolution* themes (Malloch and Trevarthen 2009). The players readjust to each other through complex processes of multimodal actions. Although dyadic, this peer to peer interaction is different to the kind of interaction we see between adult and infant because the goals of the players are children's goals, and there is no adult lead in this dynamic. Instead two exploring individuals both negotiate as equals from a young child's standpoint.

We see between Milly and Pip the musical imitations and synchronisation which Ansdell & Pavicevic, (2009); Rabinowitch, Cross and Burnard (2009) and Gill (2007) suggest are possible mechanisms for, or indicators of intersubjectivity. The children imitate each other using the physical movement of their own individual styles. For example: Milly has her own style of alternate hand playing and side-to-side movement which is different from Pip's playing and jumping, however, while maintaining her own method of playing, Milly matches Pip's emotional energy by speeding up and vocalising with him.

The xylophone is, among other things, a material artefact for their interaction. The singing, moving and vocalisations are non-material artefacts which facilitate a narrative of multiple meanings, goals and shared playfulness. While the experiences of the children may be different (for instance, Pip

may be performing to multiple audiences and Milly may only interact with Pip under certain conditions which interest her) these artefacts are shared and transformed into a socially constructed story which Alcock (2008a, 2008b,2010) suggests is a primal way of making meaning. Callums's interruption in the 3rd movement occurs at the height or climax of interaction between Pip and Milly. His intentions are unclear but have a strong effect on the other two. At first they stop and attend to Callum, and then suddenly , simultaneously and briefly continue at the same level of intensity as before, causing Callum to quickly withdraw his hands. They seem very complicit in this action. Possibly Callum's action is intended to stop the two playing for some reason but it is interesting to consider that his scream matches the intensity of their playing in a way that grabs their attention and could possibly be an attempt to join in their communication as well as to stop it.

Sample 3: "Hello!"

This episode was captured during Amy's focus session which was the first ten minutes of free play during session 5. The session revealed Amy as a very sunny child, happy to explore and connect with others. She made strong eye contact and smiled at other children she engaged with and laughed a lot.

> *Amy is laying her front on the Log Drum. Fred is nearby and Milly also climbs on the Log drum but there is no sense of interaction between the three. A child (probably Callum) calls out "Hello!" from the doorway. Fred stands to look. A second "Hello!" is heard and Amy turns to look. On a third "hello!", Amy smiles and looks excited. She moves directly towards the door calling "hello? Hello?", repeating it five times. The "Hello?" call has three notes in it approximately a tone apart and start in the region of an 'D5 > F#5> D5' and rise to an F5> G5 > F5 . Amy is almost laughing as she calls out.*

Table 5: Approximate notes in "Hello" showing pitch rise and fall			
	Hel	*Lo*	*Oh*
Initial call	*E*	*F#*	*E*
Amy walks to the door	*F*	*G*	*F*
Callum raises the intensity	*G*	*A*	*G*
Surge	*G#*	*A#*	*G#*
Amy's return	~	*G#*	*F*

On reaching the door, Amy stands between Callum and Pip who are at the doorway by a low gate. Smiling she leans out and calls "hello" twice more turning to her left and right. Callum leans out and calls a longer, higher , louder "hello!". Amy and Callum are laughing. Several other voices call "Hello" from inside the room. Pip joins in. There is a surge in energy.

Pip and Callum beat their beaters on the gate, the calling of "hello!" stops. Amy turns and leaves, and as she makes her way back to the log drum, she trips and says " Hello-oo" quietly as she rights herself, as if saying "oops". She picks up a beater and beats upon the log drum.

We see this episode of what I termed Affective Group Action from Amy's perspective in particular, but many children all over the room joined in at its climax.

There is a noticeable rise in pitch of voice as gesture, participation and emotional expression rise to a crescendo. Malloch and Trevarthen (2009) describe this curve or vitality contour as a narrative consisting of Introduction, Development, Climax and Resolution. However rather than being dyadic in nature there is a shared, group interaction. The drop in Amy's pitch on her final "Hello" is consistent with the resolution as she departs from the doorway.

The children are usually picked up by their parents after they have been in the summerhouse. Looking out of the door and seeing your family gives the everyday context to this drama of calling "Hello". Perhaps we see the social-emotional and cultural narrative of being picked up by one's parents enacted here or wider drama of generally saying "Hello" to people in the world. Dissanayake (2012) argues that music and narrative come from the same place and here we see a musical narrative of emotion, constructed by two year olds with a shared cultural experience of calling out 'Hello'.

The single word "Hello" becomes an artefact for enabling a drama whilst simultaneously being the more music of group togetherness. This music, like all music, is more ambiguous in meaning (Cross & Morley, 2009) but conveys a sense of complicity and funniness which is rooted in the social-emotional shared experience. The players use the word-song as a conduit for, and a story of, the experience they are enacting, and the experiences they are feeling (Barrett 2010, Alcock 2010); we see the musical narrative enabling the expression of feelings and identity - a performative, improvised communal activity. Sometimes "Hello?" is a question, such as when Amy has not yet seen out of the door and her mother could potentially be really there. Possibly Amy's questioning intonation shows her interest in a potential *game* of "Hello"? Certainly Amy does not express any disappointment in her mother not being there when she gets to the door, rather the game is found and contact and laughter is made between her and Callum. Sometimes "Hello!" is declaimed - a call for others to join in , much like the way in which " Stop!" and "Go!" are used. The whole story/game/ music of "Hello" builds into a crescendo or climax. In terms of Dissanayake's five psychological necessities (2012), we see a sense of belonging within the group and personal and collective meaning. We are also possibly seeing an artistic expression and communication of an important part of children's lives which they are creating together. As Amy turns to leave, Pip and Callum beat loudly upon the gate, finding a new game together with a similar intensity and complicity but in a different mode. By focussing on how "hello" is used musically as a mediating artefact, in processes including imagination, imitation and repetition, we see an interconnectedness

and shared playfulness even though individual experiences and goals may be different (Alcock 2008a, 2008b, 2 010).

Concluding Comments

In this study, I have reviewed a range of literature around themes of the musical nature of group belonging, connectedness, intersubjectivity and music as a mediating artefact for social interaction. I have used the literature as a theoretical lens with which to view two year old children's behaviour within a particular context.

I have positioned the research in a methodology which aimed to shed light on two year old musical behaviour and the findings have been analysed and discussed. In this final section, I examine the overarching themes and I ask what this implies for EY music pedagogy and wider EY pedagogy.

The use of video in early years practice is an invaluable tool enabling practitioners to reflect and review what goes on. Being physically present in the research sessions, I know that I could not have observed the detail of interaction accurately, if at all. The adult practitioners who I shared the footage with were amazed by how much complexity was present in a short interaction. They also expressed that they saw children's behaviour in a new light as a result of reviewing the footage slowly and repeatedly. By using video in early years we are able advocate for children and present them as competent and active agents in their own learning. Sharing video with parents helps in building an all round understanding of children. Sharing and using video with children gives the message that we value and are interested in what they do and can be a tool for joint reflection. By using video in music and arts practice we can reflect on our own assumptions and behaviours as well as advocate for the arts and disseminate effective practice.

The narrative of communicative musicality *Introduction, Development, Climax and Resolution* (Malloch and Trevarthen 2009), seemed to be present in many interactions but it was transformed and adapted from parent/child dyadic interaction into new peer-based forms. Musicality, expressed as movement, sound and gesture and physical positioning was used by children to build relationships and to create their peer culture. The nature of interaction between young children was

short and intense and part of a plethora of other types of engagements with the physical space and the adults in it. The children derived pleasure from successful interactions with each other and this was borne out by their evident pleasure and focus when watching the films of each other interacting. A few children avoided interaction with peers, focusing on solitary exploratory play and discouraged peer interference. Even when interacting with practitioners, these children seemed less happy. This reflects on Dissanayake's (2012) thoughts on the psychological necessities of belonging to a group and of collective meaning. It also asks what conditions enable certain children to find a sense of group belonging. Custodero's (2005) thoughts on Flow (Csikszentmihalyi, 1990) and her ideas of teachers being engaged in the immediate, complex inquiry of how the learner is defining the task suggests pedagogy that can work with and develop these happy interactions between children and which supports and nurtures group interaction. I suggest that it is in the sphere of the temporal arts, music, dance and drama, which are fundamentally group orientated, that we will find this pedagogy.

Within education, the Arts have a lower status compared to other subjects. There is a conception that children need to learn other, more important, things before they can 'learn to express' themselves through the arts and that there is nothing to learn from the arts. In the light of theories of Communicative Musicality; Dissanakyake's (2012) hypothesis on the ontogenetical and phylogenetical origins of music, and Alcock's (2008a; 2008b) complex narratives on how children use *musike* to create and transform their world and relationships, this looks more than a little back to front. It is well established that all human development comes from social-emotional interaction with others and that this is an essentially creative act which had been framed as musical and dance-like by Stern (1985) and Malloch & Trevarthan (2009) amongst many others. If we consider the way in which human musicality, expressed physically, as suggested by Rabinowitch, Cross and Burnard (2009) lies at the very root of communication, language and emotion then we start to see how the arts are deeply embedded and central to children's development. My concern is that without deeper understanding of how creativity, musicality and improvisation are fundamental to learning, the

curriculum becomes dry, technical with an over-emphasis on language and talking which actually ignores the roots of human communication.

In the face of developmental targets which focus a great deal on learning to talk, it is sometimes easy to forget that children need to make friendships with each other and that this will entail developing, expressing, and co-creating multi modal languages which go beyond, and are the foundations of talk. Therefore conditions need to be set up which focus on enabling *multi modal* interaction, with a minimum of adult direction but with adult support which is underpinned with an understanding of expressive musicality. By neglecting to encourage young children to independently make meaning with each other as a cultural group in educational settings, and by ignoring the multi modal and fundamentally musical ways in which they make that meaning, we send the message that their play and their culture has less value than speech-orientated, single-focused, adult-led meaning. We also run a real risk of educating children out of the ability to attend to several things at once, which may be inherent in very early childhood. Surely the complexities of the future world our children will inherit calls for multi-focused abilities beyond following direction?

Finally, this study is a small piece of a very large picture, both in terms of EY music pedagogy and pedagogy for two year olds. The picture is mostly gaps which need to be filled in order to create an understanding of what having so many two year old children suddenly coming into education means. My interest in the communicative behaviours of two year old children is grounded in my being a long term practitioner of the temporal arts, working in mediums that are not word dominated but are nevertheless communication rich. I would therefore argue that nurturing our own adult communicative musicality, that is to say, our aptitude to connect with others in the moment through improvisation, playfulness, multimodality and shared funniness, and our understanding and practice of those processes, is a fundamental pedagogical tool.

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Appendices

Appendix 1: Video coding of interactive events

Chosen for screening and second stage analysis of emerging themes

Duplicated footage on different cameras

Chosen for micro-analysis

	Code	Description	Time on video	Duration of interaction	Type of Interaction D.I – direct interaction A.A – Affective Group Action
1.	1: B3i1	Drawn into to stop go game	2.18	18	AA
2.	1: B3i2	Xylo frenzy – drawn back into play by Pips full-on playing	6.39	8	AA
3.	1: Wide1	Full Xylo shot of stop go complicite as in 1:b3i2	25.18	3.5 min	AA DI
4.	1 wide 2	Girls quiet conversation	26.13	30	DI
5.	2: B2i1	Looks over at noisy fun and smiles while busy playing posting on LD. A scream whoop is heard twice. B2 copies very accurately and joyfully beats log drum. Carries on smiling until he is once more absorbed	1.12	20	AA
6.	2: G3i1	Interaction with friend on xylo, mirroring playing with beaters	0.01	12	DI
7.	2:G3i2	Says “Cheese” for a boy taking a photograph	3.32	5	DI
8.	2: G3i3	Finds her friend and attempts to share chair spend the next minute sharing and laughing	3.47	1.40	DI
9.	2: G3i4	Watches stop/go playful fun intently smiling	6.30	20	AA
10.	2: 1W2	G4 has been playing for 2 mins involved in solitary play. Occasionally looking around. Second girl plays opposite but not visible or audible	2.32	35	DI

		interaction. G3 arrives excitedly and beats upon the xylo with both hands. G4 smiles broadly they mirror and then swap and negotiate beaters. Trying one and two.			
11.	2: 1W3	Sweeping motion is picked up and briefly mirrored between g4 and girl	5.48	18	AA
12.	2: 1W6	Mirroring sliding smiling interchange G3 &G4 with playful vocalisation	18.45	7	DI
13.	2: 2w3	G3 cheese as in 2:G3i2	22.06	5	DI
14.	2: 2w4	Girls sit on drum watching funniness of stop go. G4 comes over and they smile and laugh together	25.13	5	DI
15.	3: B1i1	Reveals child with scarves	38 secs	5	DI
16.	3: B1i2	Reveals to boy directly	1.00	8	DI
17.	3:B1i3	Other children pull off his lycra cover. He has invited the game	1.32	20	DI
	3: B1i4	Shared game with practitioner	1.50		
	3:b1i5	Girl pulls scarf as he sits with Prac	3.02		
18.	3:B1i6	Girl chases Pip with scarf (he doesn't notice)	3.27	5	AA
19.	3: 1w1	Girls rush together into scarves	7.12	5	AA
20.	3:1w2	Girl watches free play lycra and gets involved	7.44	50	AA
21.	3:1w3	Mass rush into scarves	9.40	7	AA
22.	3:1w4	Mirrored action in scarves	11.17	5	AA
23.	3:1w5	Scarf games, girl watches Pip intently as he engages with a practitioner and smilingly throws scarves at him – inviting play - one of the few interactions of her engaging with peers.	20.52	30	AA
24.	3:1w6	Girl watches Pip and they interact on LD – this evolves into a short narrative of copying and leadership	28.18	1.20	DI AA
25.	3:1w7	Group forms at RD high attention from one boy. Some sychronisity. Pip bursts in with stop go	28.39	8	AA
26.	3:1w8	Continuing the stop go game above, young boy attempts stop go	30.55	20	AA
27.	3:2w1	Scarf swarm (3:1w3)	15.00	7	AA
28.	3:2w2	3 girls in scarves (3:1w4)	20.23	5	AA
	4:B1i1	Joins peer and practitioner under lycra.	.24		
29.	4:B1i2	Puts lycra over G peer's head. She does not give a reaction	1.31	5	DI

30.	4:B1i3 *	Is drawn to Xy by peer's (Pips) playing along with several others. Copies rhythm and dynamic of playing and follows Pip to LD	2.02	55	AA
31.	4:B1i4	Following above sequence, calls out 'stop' to peers (PIps game)	3.10	5	AA
32.	4:B1i5	Reacts to Pip's calling (drum?) copies then interacts with peers on xylo. Playing seems to erupt	3.55	25	AA
33.	4:B1i6	Girl attempts to take his beater. By pulling away, he falls into a pile of scarves. Girl pursues and takes beater. Calling Stop he returns to the Xylo and physically stops another girl from playing. She moves off.	5.43	20	DI
		Free play commences at 4.43	4.43		
34.	4:1wi1*	Xylo comes out Pip attracts several peers. Synchronised paying dynamics and movements. When Pip leaves and plays LD B1 follows (8.17) as in 4:B1i3	7.16	60	AA
35.	4:1Wi2*	Playing initiates dancing. Takes off. 4 children playing and smiling or laughing. As 3 leave the remaining girl clearly 'finishes' and stops (9.37). She continues when peer returns (9.40) AS IN 4: B1I5	9.08	25	AA
36.	4:1Wi3	Girl passes boy an extra beater involving him in joint play	10.31	5	DI
37.	4:1Wi4	Altercation with beaters as in 4: B1i6	10.42	20	DI
38.	4:1wi5	Takes soft beater from watching girl and places it in his mouth. She takes end and pulls. Prac intervenes	24.09	7	DI
39.	4:2Wi1	Xylo playing (W1) as in 4:B1i3	6.58	55	AA
40.	4:2Wi2	Two boys break from xylo to play LD as in 4:B1i3	7.33	8	AA
41.	5:G1i1*	Pip instigates Stop/Go and leaves. Others pick this up raising beaters and laughing	0.50	25	AA
42.	5: G1i2	Attempts to collect beaters from friends . They leave. She follows	1.08	5	AA
43.	5:g1i3	Notices sound	2.37	5	AA

44.	5:g1i4 *	Is distracted from sound by peer who is playing close by. He plays then puts his beater in his mouth ,she copies this then takes the beater out and plays. He copies her. This mouth/ beater action is copied again 5.15	2.38	15	AA
45.	5:g1i5	Window kiss. This gives clues to her disposition	3.40	5	DI
46.	5:g1i6 *	She plays on the xylo next to a peer who is involved in solitary exploration of texture. He is not playing the xylo. She places a beater before him from the many she hold in her hand (Beaters as social currency?) . He picks it up (social cue and beater)and plays along.	4.15	36 WHOLE SEQUENCE	DI
47.	5: g1i7*	Shortly after, she has placed a number of beaters into the gap of the xylo (a common activity) the same peer watches and copies after she removes her beaters. She plays. He moves opposite and also plays. Difficult to see interaction other than through actions	5.35	23	aa
48.	5:g1i8 *	Amy approaches the drum where Callum is playing. He doesn't want her to play and lays over the drum. She persists without getting upset or angry or teasing. Good naturedly. Pip approaches and takes some of her beaters. She protests initially but they negotiate amicably without intervention from adults. Pi and Amy play the drum, Pip with his usual high energy. Pip leaves. Amy and Callum play together making strong eye contact. Again Callum attempts to stop her by laying on the drum but she laughs and plays around him.	6.10	1.20	DI
49.	5;g1i9 * also 5:w1i3 14.26	HELLO. Amy responds to a child calling hello out of the door. She runs over laughing and stands by the door with Callum and Pip. Amy and Callum are calling 'hello hello' enjoying themselves. Pip joins in and then the whole group start calling 'Hello? Hello!.. Immediately afterwards she runs to the LD and beats excitedly smiling. She then joins piP on the Xylo	8.20	35	AA
50.	5: G2i1	Altercation while standing up. Snatching of beaters between Milly and Callum	13	8	DI
	5:G2i2	Watches and laughs at peers and music worker interacting on the Xylo. Does not join in	1.03		
51.	5:g2i3	Altercation with beaters with Amy	4.30	6	di
52.	5:g2i4	Altercation with beaters with Susie. Frustrated by Susie's intervention Milly attacks and hits her.	6.08	25	di

53.	5:g2i5 *second clip	Is Joined by Pip on the xylo. She initially blocks him but he plays opposite. Strong mirroring and CMF ensues. In body language movement and xylo playing.	0.52	50	DI
54.	5:B3i1	Callum lays on drum not wanting other to play it. Is tired and avoids interaction. No other interaction	2.30	30	DI
55.	5:1wi1	Stop go as in 5:G1i1*	6.28	25	aa
56.	5:1wi2	Sharing beaters as in 5:g1i6* good angle	10.22	36	DI
57.	5:1wi3 *	Following 'hello' Pip and Amy return to the xylo for a play. Eye contact and laughter 5:g1i9*	14.26	20	AA
	5:1wi4	Music worker, Pip and Amy laugh	17.10		
58.	5:1wi5 *	Pip plays madly on the xylo Amy joins him mirroring and laughing	19.04	25	DI
59.	5:1wi6	Comedy clip. Milly takes Pips beater from mid swing behind his back. He reacts with comedic style	21.22	20	DI
60.	5:1wi6	Different vg angle of 5:g2i5 interaction between milly and pip. Mills POV	25.15	50	DI
61.	5:2wi1	Micro copying interaction on LD , Callum copies Pip	7.02	14	AA

Appendix 2: Second level of analysis of selected clips

	Code	Description	Behaviours present
1.	2: B2i1 *	Looks over at noisy funniness and smiles while busy playing posting on LD. A scream whoop is heard twice. B2 copies very accurately and joyfully beats log drum. Carries on smiling until he is once more absorbed	C,D,H,I,J,L,
2.	3:B1i3	Other children pull off his lycra cover. He has invited the game	A, B,C,E,F,G,H ,I,J,K,L,M
3.	3:1w2	Girl watches free play lycra and gets involved	B,C,E,F,G,H,I,J,L,
4.	3:1w6 *	Girl watches Pip and they interact on LD – this evolves into a short narrative of copying and leadership	A,C,E,F,G,H,I,J,K,L,
5.	4:B1i3 *	Callum is drawn to Xy by peer's (pips) playing along with several others. Copies rhythm and dynamic of playing and follows pip t o LD	A,B,C,E,F,G,H,I,J,L,
6.	4:B1i5	Callum reacts to Pip's calling (drum?) copies then interacts with peers on xylo	A,B,C,E,H,J,M
7.	5:G1i1 *	Pip instigates Stop/Go and leaves. Others pick this up raising beaters and laughing	A,C,D,F,H,I,J,K,L,M
8.	5;g1i9 * 5:1wi5	HELLO. Amy responds to a child calling hello out of the door. She runs over laughing and stands by the door with Callum and Pip. Amy and Callum are calling 'hello hello' enjoying themselves. Pip joins in and then the	A,C,D,E,F,G,H,I,J,K,L,M

		whole group start calling ‘Hello’Hello,.	
9.	5:g2i5 & w:1wi 6	Milly Joined by pip on the xylo. She initially blocks him but he plays opposite. Strong mirroring and CMF ensues. In body language movement and xylo playing.	A, B,D,F,G,H,I,J,K,L,M
10.	5:1wi5 *	Pip plays madly on the xylo Amy joins him mirroring laughing	C,D,E, F,G,H,I,J,K,L,

Appendix 3: Story board of clips selected for 3rd level analysis

Sample 1: T.T.	
	0.07 - Holding beater. Stands by the log drum. Looking ahead. Sounds of laughter.
	1.17 - beater falls from his hand. he bends and picks it up
	5.34 - Returns to Log drum with beater in hand. Watches across room. Hands are on LD
	6.23 - looks down briefly. 6.50 - 1st scream-laugh is heard. Notes something like D>C.
	10.83 –stands up straight. Lifts right arm

	12.25 - smiles and watches as two note scream-laugh is heard again
	12.59 - Raises beater in left hand. Looks down at LD
	13.53 - Strikes LD
	13.83 - Smiles and laughs and makes exact pitch copy of scream-laugh.
	15.78 - posts beater and looks down

	16.35 - looks up again smiling
	18.99 - appears to sigh as sighing noises are heard from the other side of the room
	20.61 - looks down. 22.87 - Laughs again similar interval. 25.13 - stops smiling and becomes absorbed in posting

Sample 2: Milly & Pip	
	0.00: Milly just approached the xylo and is playing with a beater in each hand. She plays a steady rhythm tune using both hands alternately.
	0.07: Pip approaches on Milly's left side. He reaches to play. He holds a single beater and is vocalising and "ee ee ee" sound.

	0.08: M moves sideways towards Pip so that he is not able to continue playing. She does not look at him.
	0.10: Pip vocalises a “0h” and moves round the xylo until he is opposite M. M moves back to her original place and continues playing
	0.11: Pip is singing and beating energetically. He sings the words “pellies up and down” over and over again as part of his vocalisations .
	0.13: Milly looks at Pip and smiles
	0.15 Pip briefly plays the beater with both hands. M’s smile broadens

	0.16 Milly sways to her left moving her right foot to tip toe and leaning her head to the right. She continues to play with both hands. 0.17: Milly also starts to vocalise 0.19 Milly stops looking at Pip and looks at the xylophone. The playing continues with Pip singing his " Pellies up and down" song
	0.22: Pip takes his beater in both hands and speeds his "Up and Down" song and his beating. He jumps as he beats 0.24: Milly looks up at Pip again, smiles and speeds up beginning also to play with both hands at the same time. She also vocalises.
	0.26: Milly turn her head suddenly to the right and stops looking at Pip
	0.28: Pip raises his beater until it is behind his back. M stops playing.
	0.29: M moves from side to side for a couple of beats. Then, as she moves right, she plays her right beater then left. She plays 6 slow beats. On the 4th beat she looks back at Pip

	0.33: Pip brings his beater down hard and plays fast. He vocalises a “AHHHH” . M looks at him and speeds up her beating vocalising in a similar way.
	0.35: Callum screams and approaches laying his arms along the xylophone. M& P stop playing and look at him. Pip raises the beater behind his back.
	0.37: P says go and brings his beater down. M&P start playing fast again. They are not looking at each other, C quickly draws his hands back from the xylo. M plays widely from side to side on the place where C had his hands. C holds his hands together and looks around the room.
	0.40: P inserts his beater into the xylo. C screams again
	0.41 Milly watches Pips beater being posted and moves to the same place holding her beater at the bottom. The beater falls from her hand.
	0.42: Pip attempts to pick up the beater but Milly takes it back and walks away

	0.43: Pip removes his posted beater and walks away

Sample 3: “Hello”	
	0.00: Amy is laying on the Log Drum. Fred kneels on the far side
	0.02: She swings her legs off as M joins her. They do not look at each other
	0.05: A “hello” is called out by a child. Fred stands and looks
	0.07: A second “hello” is called. Amy stands, turns and looks.

	0.08: A 3rd "hello" is heard. Amy smiles
	0.10: Amy starts walking towards the voice, she says " Hello". M stays on LD and Fred continues to watch.
	0.11: Amy repeats hello smiling and continues to walk. She repeats hello twice more and approaches the doorway
	0.15: On her 5th "hello", Amy Joins Callum and Pip by the doorway where they lean on the gate. Amy leans out in between the two boys. Pip on her left and Callum on her right. She leans out and looks left and right calling "hello" each time. She smiles at C
	0.18. Callum leans out with Amy and calls a louder, longer, higher "Hellooo" which rises at the end. At the end both he and A move back in slightly

	0.19: Amy calls out a lower elongated “helloooo”. Callum turns towards her
	0.22: Callum calls out even higher and louder at the same time as a practitioner. They both turn inside to look at the practitioner.
	0.25: Amy leans out of the door and calls “Hello” 0.26: Callum leans out and calls “hello” 0.27: Another child calls out “hello”. Callum turns to look 0.29: Pip calls out “hello” rising up against the window .Other hellos are heard.
	0.32: Callum bobs up and down and raises his beater. Amy turns back into the room.
	0.33: Pip and Callum beat on the gate. Calling of “Hello” stops.

	0.36: Beating stops. Amy back in the room stumbles, is helped by a practitioner and says “helloo” as she recovers.
	0.41: Amy picks up a beater 0.44: Beats upon the log drum

Appendix 4: Research Proposal and Ethics Approval forms

Research proposal

The contents of this form should be discussed with your supervisor at your first tutorial

Student Name: Charlotte Arculus	**Supervisor: Susan Young**

Single Research Project		**Double Research Project**		**Dissertation**	**x**

Write a short paragraph describing the focus of your research.

My focus is the peer to peer interaction between two year olds in day care settings. If and in what forms it manifests and how it may relate to the communication between children and practitioners.

The need for this research is prompted by the increase of funded places for two year olds which is due to expand in the next two years. Funding is targeted at 'disadvantaged' families. Agendas of school readiness and early intervention are part of the government's rationale behind the increase funding. My particular focus is two year old children's emerging language and the links between the intimate parent child interaction, in particular Malloch and Trevarthen's notion of 'Communicative Musicality' and language acquisition. I wish to contribute to the understanding of playful multi-modal forms of communication – gesture, movement, voice and word play, facial expression etc - and by studying how children construct this between themselves may enable educators to work with children's communicative competences. Although this study will focus on a small sample of children, it is anticipated that some of the understandings about communication among this one sample will be of wider relevance beyond this small sample. An understanding of how young children create meaning together may have value not only in the development of spoken language but as a foundation for interaction, social skills, empathy, creativity and well being.

List your proposed research questions and/or hypothesis.

- What is the nature of communication between two year olds in a musical free-play environment?
- How can practitioners support communication in a musical free-play environment?

List the area(s) of literature to be reviewed and the key authors you intend to refer to.

Alcock, S (2010). Young children's playfully complex communication: distributed

Imagination. *European Early Childhood Education Research Journal*

Vol. 18, No. 2, 215–228

Alcock, S*. (2008),* Young Children Being Rhythmically Playful:

creating *musike* together. *Contemporary Issues in Early Childhood Volume 9 Number 4*

Alcock, S. (2008). Word-play and musike: young children learning literacies while communicating playfully. *Australian Journal of Early Childhood*. Vol.33, No 2, 1-9

Barrett, M.S. (2010), Musical narratives: a study of a young child's identity work in and through music. *Psychology of music* 39:403

Bruner, J. (1986). *Actual minds, possible worlds*. Cambridge, MA: Harvard University Press.

Csikszentmihalyi, M. (1990) Flow: the psychology of optimal experience (New York, Harper & Row).

Custodero, L. A. (2005). Observable indicators of flow experience: a

developmental perspective on musical engagement in young children from infancy to school age,

Music Education Research, 7:2, 185-209

Dissanayake, E. (2001) Antecedents of the Temporal Arts in Early Mother–Infant Interaction, in N. Wallin,B. Merker & S. Brown (Eds) *The Origins of Music*, 389-410. Cambridge, MA: MIT Press.

Dissanayake, E. (2012) The earliest narratives were Musical. *Research Studies in Music Education* 2012 34: 3

Koutsoupidou, T and Hargreaves, D. (2009) An experimental study of the effects of improvisation on the development of children's creative thinking in music. *Psychology of Music* 37: 251

Malloch, S. & Trevarthen, C (2009) *Communicative Musicality.* New York, Oxford Press.

Describe the research methodology that you intend to use (Quantitative, Qualitative, Critical).

In order to gather information that will answer the research questions the study will focus on collecting data of children's interactions via observation and will adopt a qualitative approach.

The research will be practice based and will seek to identify the conditions that are most conducive to interaction and 'communicative musicality' taking place between two year olds. It will discuss strategies for practitioners to support children's communicative development.

Describe the research methods that you will use (observation, interviews, concept map) and provide an indication of your sample size(s) and how you will analyse the data.

Participant observer – video recordings of 3x 30 minute sessions.

The sample size will be 3 children within a group of around eight children. The observations will take place in a musical free-play area set up in a separate room. Language will be kept to a minimum and practitioners will be asked to respond to but not initiate children's play and interaction.

The three sample children will be chosen randomly and filmed for 10 minutes each. This may include interactions with other children in the group.

All children taking part will be children between 24 and 36 months attending a dedicated setting for two year olds.

The Video data will be analysed qualitatively through a process of repeated reviewing to reveal different types of communication (vocal, verbal, gestural etc.). The video will also be reviewed on slow playback to reveal the micro-detail. There are a number of theoretical perspectives that may illuminate the children's communications: -– Cultural historical activity theory, Communicative Musicality, Affect Attunement, Flow, Sustained Shared Thinking.

Video data of interactions will be shared with the practitioners who take part in the research sessions. Their insights and reflections will be recorded to triangulate the research.

In order to further triangulate the findings, video data of interactions will be shared with other Early Years professionals, and Early Years music specialists to gain further insights and perspectives to the nature of the children's interactions and behaviours.

Selected video data will be shown to the children with age-appropriate approaches for children to give responses. It will be shown on a large screen where they can get up close and interact with what is going on. The children's responses will be filmed and recorded. This will increase the children's participation in the research and their responses may be a valuable source of extra insight and information.

Selected video data will be shared with parents to gain further insight into children's interactions and behaviours.

Provide a timetable or flow chart of where, when and how you intend to undertake the research.

Feb 2013 - setting chosen – parental consent gained – overview shared with setting staff

March 2013 - sessions recorded. Data reviewed and labelled on the same day. Reviewed again each week

April – Episodes of interaction selected.

April – Episodes of interaction shared with professionals – nursery staff, music specialists, music therapists early years specialists. Analysis of different types of interaction begins

May - Further analysis of different interactions

May – Children observe selected data, their reactions are recorded

May - Parents observe selected data, their perspectives and insights are recorded

Student Signature: **Date:**

Supervisor Signature: **Date:**

Module Leader Signature: **Date:**

Request for Ethical Approval

***Section 1* – to be completed by the researcher**

Full name	Charlotte Arculus
Module number and title (student researchers only)	EDU7133 MA Education (Early Years) Dissertation
Research Proposal title	Communication between Two year old Children in Musical Free-Play
Funding body applying to if applicable	N/A
Brief outline of proposal (including research questions where appropriate) You are also asked to submit with your application copies of any questionnaires, letters, recruitment material you intend to use if these are available at the time of requesting approval	My focus is the peer to peer communication between two year olds in one day care setting, in what from this communication manifests itself and how it relates to communication between children and practitioners. Research questions: • What is the nature of communication between two year olds in a musical free-play environment? • How can practitioners support communication in a musical free-play environment? The research is contextualised in the increase of funded places for two year olds which is due to expand a great deal more in the next two years. Funding is targeted at 'disadvantaged' families and agendas of school readiness and early intervention

	are the government rationale behind the increase funding. My particular focus is two year old children's emerging language and the links between the intimate parent child 'communicative musicality' and the development of an infant's communicative competences. I wish to contribute to the understanding of playful multi-modal forms of communication. By studying if and how young children construct meaning between themselves, educators may be enabled to work more effectively with children's communicative competences.
Level of research, e.g. staff, undergraduate, postgraduate, master's (award related), MPhil, PhD	Masters
Please outline the methodology that would be implemented in the course of this research.	In order to gather information that will answer the research questions the study will focus on collecting data of children's interactions and communication via observation and will adopt a qualitative approach. The research will be practice based and will seek to identify the conditions that are most conducive to interaction and 'communicative musicality' taking place between two year olds. It will discuss strategies for practitioners to support children's communicative development
Please indicate the ethical issues that have been considered and how these will be addressed.	I do not expect that my role of participant observer or the musical free-play environment in which the observations will take place will have a negative effect on the children in any way. Informed written consent cannot be obtained from children so young; however their consent can be given in other ways. I will not continue to observe or film children who show signs of not wishing to be observed and filmed. Footage of distressed children would be destroyed.

	Children will be 'listened to' through their verbal, physical and emotional communication. Film footage will be shared with the children so that they have knowledge of, and participation in the research processes. Children may leave the musical free-play environment at any time. The children who attend setting in which the research will take place are used to being filmed and consent from most parents has already been given for observation and research purposes. Full transparent information will be shared with parents and the right to withdraw at any time from this research made clear from the outset. Research will take place where voluntary informed consent has been gained from setting staff and parents. I will have full, ongoing and transparent discussion with setting staff to gain their insights and comments throughout research. I do not expect the research to add to or affect the workload of setting staff. I do however hope the research to be useful to practice. I hope to share findings as part of ongoing professional development with the setting. Anonymity - Written reports will have false names and identities will not be traceable to the setting. I am aware that some parents are concerned about video data. Data will be kept securely by myself and only shown for professional purposes.

Please indicate any issues that may arise relating to diversity and equality whilst undertaking this research and how you will manage these.	The main concerns around equality are the misinterpretation of children's intentions. There is an inequality of language with any two year old with that of adults and the research must be careful in how it represents the communication of two year old children. There may be children present who belong to an ethnic minority. As the free-play-music environment will be child-led and with spoken language kept to a minimum, I do not envisage that issues will arise relating to ethnic diversity within the environment. However parents with little English may feel obligated to give consent to those who they perceive to hold power, or may not fully understand the nature of the research or why their children are being filmed. Every care will be taken to fully inform parents - translation of consent form etc. If we are any doubt of consent, children will not take part. There may be children present with physical or cognitive impairments. As the musical free-play environment is designed to be conducive to multiple modes of expression – movement, sound, gesture etc, I do not envisage that issues around ability will arise. Parents of children with funded places may feel obligated to give consent and perceive that their funding may be at risk if they don't comply. Every effort will be made to give clarity of the research and its purposes to parents and that they have no obligation to allow their children to take part.

Please indicate how participants will be de-briefed about their involvement in the research process and or provided with opportunities for reflection and evaluation	For the children who participate, there will be a fun celebratory session, a sharing of observation film clips and making music. The session will integrate research findings in an appropriate way. Parents will be briefed on the work and a summary and selected footage will be shared with them. Practitioners who take part will be provided with opportunities for reflection and evaluation as part of ongoing professional development.

Please answer the following questions by circling or highlighting the appropriate response:

1. Will your research project involve young people under the age of 18?

YES **NO**

If yes, do you have an Enhanced Disclosure Certificate from the Criminal Records Bureau?

YES **NO**

2. Will your research project involve vulnerable adults?

YES **NO**

3. For which category of proposal are you applying for ethical approval?

Category **A** **B**

Confirmation of ethical approval

Section 2 – to be completed as indicated, by module leader, supervisor and/or chair of ethics sub-committee

For Category A proposals:

I confirm that the proposal for research being made by the above student/member of staff is a category A proposal and that s/he may now continue with the proposed research activity:

For a student's proposal – Name of module leader or supervisor giving approval	
For a member of staff's proposal – name of chair of FAEC (or nominee) giving approval	
Signed	
Date	

Category B proposals:

I confirm that the proposal for research being made by above student/member of staff is a category B proposal and that all requirements for category B proposals have been met.

On behalf of students (only):

Name of module leader or supervisor	Susan Young
Signed	
Date	