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# Sound Reflexes: Micro-Analysis of Meaningful Moments with Children Receiving Music Therapy

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## **Abstract**

*This study investigates meaningful moments in improvised music created during individual music therapy sessions with children who have delays in various areas of development. Secondary analysis of clinical records (session notes and video footage) was used in this music centred research to identify meaningful moments in the music. Six meaningful moments were chosen, each from a different child, and subsequently the musical interactions of the child and student music therapist were transcribed in detail. An ethnographic, microanalysis approach was applied to analyse and interpret the observable features of the music.*

*The analysis of what was happening in the music helped the researcher to understand and articulate the meaningful moments. Meaningful moments were found to be shared experiences in the co-creation of music, which provided opportunities to foster a responsive interpersonal relationship between the child and therapist. They occurred because the music provided a framework for structure and change through synchronicity and regularity/flow as well as variation, tension, suspension, expectation and anticipation. The meaningful moment was facilitated by musical elements: rhythm, tempo, pitch/melody, harmony, timbre and volume/dynamics; and musical techniques: imitation, pause, space, repetition, anacrusis and gestural actions.*

*A review of the literature was undertaken to examine the use of improvisation and the importance of meaningful moments, in music therapy. The findings are discussed drawing from the related literature and the theory of expectation. The strengths and limitations of the study are stated along with the implications for training and further research in this field.*

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# **Chapter 1. Introduction**

“We belong together in meaningful experience.” (Gratier & Apter-Danon, 2009, p. 313)

## **1.1. Background**

This study focuses on the music therapy work I have done with individual children in a private setting and at a school. At the time of writing I was in the second and final, full time year of a Masters of Music Therapy degree. I was required to undertake 750 hours of clinical practice at a placement facility towards my qualification and registration as a music therapist.

My placement was at a music therapy centre in New Zealand, which provides music therapy to children with diverse needs. Children are referred to the centre by their parents/caregivers, teachers and other related professionals, such as speech and language therapists and occupational therapists. After an initial consultation with the head of clinical services, the referred child is assigned to a music therapist for a full assessment over a six to ten week period. In individual sessions the child and therapist seek to develop the ability to share musical experiences as a pair first and then expand and transfer these skills to explore musical interaction within the group, social or family environment.

The assessment determines whether further music therapy might be appropriate and, if so, specific goals are identified. The goals often address children’s cognitive, physical and/or psychological developmental needs. The centre aims to include parents and caregivers, wherever possible and appropriate, in activities such as goal setting and weekly/fortnightly/monthly music therapy progress updates. The music therapists at the facility employ a child-centred and goals orientated approach to therapy.

My training as a jazz musician (Bachelor of Music majoring in Performance Jazz, 2008) has influenced the way I create music and experience improvisation. In my practice as a music therapy student I felt particularly drawn to improvisation and the therapeutic experience shared by the client and me. Improvising in both settings, as a musician and performer or as a music therapy student, I experience moments of intuitive connection, which seem directly related to the ‘in-the-moment’ co-creation of music. During the shared experience of making music, some moments have felt particularly powerful and/or meaningful which drew me to explore what was happening musically in the session.

## **1.2. Music Therapy**

Music therapy as defined by Bruscia, (1998), is “a systematic process of intervention wherein the therapist helps the client to promote health, using music experiences and the relationships that develop through them as dynamic forces of change” (p. 20). While there are a number of different approaches a music therapist can draw on (Wheeler, Shultis, & Polen, 2005 ), interaction and the sharing of experiences are fundamental to music therapy. The humanistic approach is dominant in my training; and thus in my practice I have adopted a client centred humanistic approach (Bunt & Hoskyns, 2002; Wigram, Pedersen, & Bonde, 2002) and draw from music centred theory (K. Aigen, 2005). This approach is strengths based, encouraging the musical and non-musical abilities of the client (children in my case) throughout the therapy process. As children develop confidence they can manage the more challenging areas of their lives. My music therapy sessions are playful and free-flowing, and musical improvisation is used as a primary medium for communication.

## **1.3. Music Therapy and Shared Experiences**

While trying to describe her experience of meaningful moments in music therapy Amir was struck by the number of descriptors that seemed relevant. These included “beauty, love,

intuition, insight, peak experience, intimacy, spiritual, Aha!, transpersonal, transcendent, aesthetic, creativity, flow of energy, contact, healing, transformation, change, growth, expansion, turning point, breakthrough, inspiration, catharsis, spontaneity, immediacy, liberation, openness, oneness...” , (1996, p. 110). Amir believed that interviewing music therapists and music therapy clients about these moments would help her to understand more about the process of therapy. Her analysis of their descriptions uncovered fifteen experiential ‘elements’ relating to 1) intrapersonal ‘awareness and insight’, ‘acceptance’, ‘freedom’, ‘wholeness and integration’, ‘completion and accomplishment’, ‘beauty and inspiration’, ‘spirituality’, ‘intimacy with self’, ‘ecstasy and joy’, ‘anger, fear and pain’, ‘surprise’, ‘inner transformation’ ; and 2) interpersonal ‘physical closeness between therapist and client’, ‘musical intimacy between therapist and client’, and ‘close contact between the client and a significant other’. Through grounded theory analysis, Amir concluded that meaningful moments in music therapy occur between client and therapist (intrapersonally and interpersonally) in physical time (one second – a few minutes) and space through the experience of making or listening to music. The meaningful moments were spontaneous yet resulted from the therapists’ cognitive and intuitive knowledge in directing the therapeutic experience. The moments were experienced on the physical, emotional, intellectual, intuitive and spiritual realms and contributed to growth, expansion, awakening and revelation for the client and the therapist. “These moments represent the heart of the work” (1996, p. 188).

Amir’s participants suggested that while these experiences took place in physical time they were also experienced in a different ‘inner’ time (participants described being “lost” in their experience for example) and on multiple levels (internal, intrapersonal, external, interpersonal); and that they were spontaneous and almost always occurred when playing music. She also notes that while an important aspect of her study was to find out how

participants described their experience of the music therapy process, participants found the process of translating their musical experiences into verbal language difficult. Nevertheless she argues:

*“The fact that there is so much congruity among the observed categories and the language describing the experience of meaningful moments suggests that there is indeed a phenomenon which was common to the participants and which could be identified as meaningful moments”(p. 128).*

In my clinical notes I record what I believe are the ‘meaningful moments’ that occur in my therapy sessions. In a clinical context I can observe what I consider to be a meaningful moment, for example when a child gives me eye contact for the first time, or feel a meaningful moment, for example when I describe a moment of musical connection which is hard to put into words as ‘beautiful’. Amir suggests that her analysis of music therapists’ and clients’ descriptions of meaningful moments in therapy can help the therapist to understand the music therapy process. However she acknowledged that her research

*“ (was) only the first step toward developing a descriptive language for music therapy of phenomena that have all too often been dismissed because the language seems to not be grounded in anything ‘real’”(1993, p. 128).*

Moreover music therapy clients are often unable to articulate their experiences, and this is true of the children I work with. Therefore it is important not only to ‘develop descriptive language’ but also to find other ways to ground those descriptions in ‘real’ material.

Amir’s acknowledgement of the limitations of verbal description has been echoed by other researchers. Nordoff and Robins, who were significant contributors to music therapy literature and research, argued that words were not able to capture the interpersonal meanings

or represent what the “interactive involvement in music had meant to [the child]” (1977, p. xxi). More recently, clinicians and researchers have developed methods of microanalysis, which enable them to examine the music generated in music therapy sessions. Detailed analysis of a small but relevant amount of data taken from a single experience with a client can help clinicians and researchers:

*“to consciously perceive and critically analyse therapy process, and with those skills to react appropriately to very small changes in social, musical, and emotional behaviour and experiences within a therapeutic context... ...The analysis of musical activity, interpersonal behaviour, client’s expressions, communication, emotions, and many other parameters has been the foundation of the arguments regarding the benefits and validity of music as a therapeutic intervention.”(Wosch & Wigram, 2007, p. 14)*

#### **1.4. Research question**

How can an analysis of what is happening in the music help us to understand and articulate a meaningful moment?

## **Chapter 2. Literature Review**

### **2.1. Improvisation**

Improvisation is commonly used in music making across many countries and cultures, and in music therapy. It is a term used to describe the creation and performance of music in real time, which responds to the environment and reflects the creator/s. In its essence, improvisation is used by the performer to express oneself in the moment and, ultimately, to communicate non-verbally to the audience. In jazz music there is also an intellectual and theoretical foundation to improvisation wherein the improviser is challenged to work within certain theoretical frameworks *and* find new ways to challenge and engage the listener. There is also free improvisation, which as the term suggests, has few if any boundaries. While limits can be imposed (for example instruments, note choices, duration) the music is intended to be explorative and expressive without enforced constructs such as tempo, chord progression and harmonic-melodic congruence.

In music therapy both styles of improvisation are applied and various different music therapy approaches include it as fundamental in music therapy (Wigram, 2004). Music centred music therapy (K. Aigen, 2005), creative music therapy (Nordoff, Robbins, & Marcus, 2007), analytical music therapy (Priestley, 1975), and psychodynamic music therapy (Trondalen, 2003) all use improvisation in sessions. Each music therapy approach varies in the way the therapist uses and analyses improvisation, but all use improvisation as a tool for self-expression and non-verbal communication. “Clinical improvisation is the use of musical improvisation in an environment of trust and support established to meet the needs of the client”(Wigram, 2004, p. 37). As the music therapy continues and the relationship between client and therapist develops the potential for self-expressive and communicative

improvisation increases. In clinical improvisation it is the “process, not the product” (Roberts, 2009, p. 382), which the music therapist is trained to promote. The therapist seeks to contain (K. Aigen, 2005) the music and actions of the client as they present in the musical improvisation, which promotes interaction and shared experiences.

It is the musical responses of the client that Nordoff and Robins call the ‘music child’ (2007). This term does not refer to the age of the client, but the innate musicality, which they experience in all of their clients and which they suggest is inborn in every human being.

The term ‘music child’ denotes a constellation of receptive, cognitive, expressive and communicative capabilities that can become central to the organisation and development of the personality insofar as a child can be stimulated to use these capabilities with significant self development” (Nordoff et al., 2007, p. 4)

Improvisation in music therapy fosters and promotes the *music child*, which empowers communication and self-expression in the client (Nordoff et al., 2007).

## **2.2. Interaction and Music Therapy**

Interaction is ‘a mutual or reciprocal action or influence’ (The New Oxford Dictionary, 2010). Music therapy can facilitate musical and non-musical interaction which must take place between client and therapist in order to develop the therapeutic relationship. Interaction by both verbal and especially non-verbal means is identified in the music therapy literature as important when working with children who have delayed development as a result of different physical, psychological and/or cognitive abilities. Music therapy has been found to promote interaction including: communication (verbal and non-verbal), reciprocity, turn taking, eye contact and shared attention (Kim, Wigram, & Gold, 2008). Hooper (1993) found that a client’s non-musical interaction could be responded to by the music therapist’s musical



interaction enabling the client to actively communicate, “breaking down barriers”(p. 213) which would otherwise limit opportunities for social interaction in daily life.

The musical experience has the potential to highlight peripheral attention. This is “partial or difficult to discern approximations, and idiosyncratic expressions of intention or engagement, often preceded and often coexisting with children’s emerging steps in verbal/vocal communication and interaction with others.” (Barnes, 2010, p. 264). Music appears to ‘bridge the gap’ for children who are having difficulty developing basic social skills such as eye contact and shared attention. Making music allows participants to experience shared attention through listening and does not require eye contact or verbal communication to acknowledge others involved. In the clinical setting children are able to practice engaging with another person without the necessity for understanding body language and social cues. Music is the medium through which they are encouraged to communicate through.

### **2.3. Interaction and Shared Experiences**

Music therapy has been found to promote interpersonal interactions (Bower & Shoemark, 2009). Music experiences, which involve elements of interaction, create shared experiences that support the development of the therapeutic relationship in (Bruscia, 1998). Interactive behaviour allows the child and music therapist to learn about each other, which can lead to moments of insight and understanding (Amir, 2005). Typical mother-infant interaction can be difficult for children with communication difficulties and as a result development is delayed. However music, such as singing and melodic speech promotes emotional communication through reciprocal and synchronous interaction, which is considered important for child development (Creighton, 2011). Through shared experiences which help model outside experiences in daily life; children increase/improve their interaction with others. Barnes (2010) found in group music therapy, with children who have autism, that the shared musical

experiences influenced learning and development/exploration of relationships. Barnes also found peripheral attention to be common when working with children who have autism (2010). Musical interaction can be useful in acknowledging peripheral attention because the attention can be acknowledged audibly rather than visually while maintaining the shared experience. Engagement precedes interaction and is described as important in order to hold shared experiences between client and music therapist (Stamenovic, 2009).

## **2.4. Meaningful Moments**

The term meaningful moment involves two concepts, meaningful and moment. Meaningful - to have great meaning as well as eloquence and expression – relates to the beholder and the subjective experience. A moment is a short indefinite period or a specific instant or point of time (Collins Concise English Dictionary, 2008). Due to the non-specific length of time involved in a moment it is often the quality or memorability of the event by which it is measured (Murray, Bradley, Craigie, & Onions, 2000).

Robbins and Forinash (1991) described time to be experienced in four ways. Physical time, which is described in music as metronomic time; growth time, this encompasses developmental progress in terms of musical ideas and development; emotional time, which is impulsive, variable and in music appears as musical expression created in its own natural time (rather than in organised time); and creative/now time, which is the spontaneous and newness of the music stimulated by or in the moment. Whilst these concepts of time coexist, Aigen suggests that it is important that a therapist can distinguish between these experiences of time in order to connect with the client and the level they function on (1998). In this study the meaningful moments incorporate each of the four experiences of time, with a particular focus on creative or now time.

## 2.5. Meaningful Moments and Music Therapy

All behaviour has meaning, and perhaps all moments have some level of meaning.

Meaningful moments can be both positive and negative and the music experience within these moments will involve different elements of significance (Bruscia, 1998). In addition to Amir's (2005) offerings, various other definitions and constructs of 'meaningful moments' have been posited. Pivotal moments (Grocke, 1999), significant moments (Trondalen, 2003), present moments (Ansdell, Davidson, Magee, Meehan, & Procter, 2010), peak experiences (Bruscia, 1987) and moments of meeting (Barnes, 2010). 'Significant moments', as described by Trondalen is "a metaphor for an interpersonal musical experience, which contains a mutual regulation towards a condensed awareness within a limited period of time" (2003, p. 6). Grocke's (1999) 'pivotal moments', in *Guided Imagery and Music*, are described as 'pivotal' in terms of the client's insight into their therapeutic process and themselves.

The term peak experience is used in the psychology literature (Maslow, 1962, 1998) and in the music therapy literature (Bruscia, 1987). Maslow describes the peak experience as one which might include elements of integration, purity and power (cognitively, physically and/or psychologically) for the individual, are effortless, and leave the participant feeling as if he is the "the master of his own fate" (Maslow, 1998, p. 100). These moments in a therapeutic setting promote identity or sense of self and other. Bruscia (1987) has found that peak experiences are not uncommon in music therapy during improvisation. "Within a therapy situation, peak experiences bring hope and encouragement, and reaffirm the values and beauty of life. They also motivate the client to forge ahead in therapy and to shed unnecessary resistiveness." (Bruscia, 1987)

Barnes (2010) describes interpersonal exchanges with children as moments of meeting.

Interaction along with shared attention and communication were seen as behaviours included in the moments of meeting. The behaviours are specifically defined as: (1) eye gaze; (2)

affect/facial expression; (3) body movements/gestures/postures; (4) sound-making through vocal/verbal expression; and (5) sound-making through manipulating objects.

Amir and others found that meaningful moments were spontaneous and music was a crucial element of the therapeutic process alongside and perhaps generated by experience, knowledge and trust between client and therapist (2005). Perhaps these ‘moments’ are “windows for relational and therapeutic change” (Ansdell et al., 2010, p. 22). Meaningful moments in the therapeutic process are seen to be transformative and can create a shift in the clients perception of themselves or other (Amir, 2005). This is an important part of therapy as the therapist aims to foster the client’s sense of self and being in the world.

## **2.6. Music Centred Music Therapy**

In music centred music therapy, music is seen as the medium through which the therapeutic relationship is created and the individual experiences the ‘musical self’. Rather than using an approach which uses music solely as a means to develop the therapeutic relationship and promote non-musical goals, the music centred approach sees the musical experience as the foundation of music therapy and any non-musical goals that are achieved are a secondary outcome. In fact Aigen (2005) goes further to suggest that should music therapy want to define itself as an indigenous therapy, rather than borrowing from other therapeutic disciplines and models, the music therapy profession must align itself with the notion that the musical experience (in music therapy) is the basis through which change and growth occur.

“In music-centred music therapy, the mechanisms of music therapy process are located in the forces, experiences, processes and structures of music” (K. Aigen, 2005, p. 51). These mechanisms are what give music-centred music therapy its foundation as a music therapy approach. It has been found that the experience of making music is, in itself, sufficient to promote the client’s awareness of self in relation to other. And therefore, as the clinical

musical experience allows and encourages, growth and change can occur. Aigen suggests that from a music centred music therapy approach it is the “primacy and universality of musical forces, experiences, processes, and structures” (2005, p. 74) that have the capacity to promote change, not the clinical social setting in which the music takes place.

## **2.7. Music Therapy with Children who have Developmental Needs**

It is important to note that my work took account of the specific conditions the children had. However, rather than focus on their specific diagnosis and problematizing them as individuals, I preferred to consider how our musical interaction highlighted what they were able to do. Therefore this sub-section aims to give a brief summary of the evidence for music therapy as an effective form of intervention for children with developmental needs.

Much of the music therapy literature and research on children and development addresses children who have autistic spectrum disorder (referred to here after as autism). The majority of the children I worked with had been diagnosed with autism or had developmental needs in terms of poor verbal and non-verbal communication, social interaction and self-expression. Therefore I have mainly focussed on the research conducted on music therapy and autism in this sub-section due to the quality of research and evidence in this field.

Music therapy and improvisation has been found to promote interpersonal interaction and is commonly talked about in the music therapy literature as similar to mother-infant interaction (Kim, 2006). Mother-infant interaction is an important part of infant learning and development (Stern, 1998). The musical nature of mother-infant interaction can be likened to music therapy improvisation with regard to the non-verbal elements: reciprocity, self-expression, imitation and the overall shared experience created between the music therapist and child. Children who have autism often appear to avoid interacting with their peers, seldom communicate in social environments, and often have difficulty with developing their

communication skills and speech and language (Lim, 2012). Music therapy improvisation has been found to motivate interaction between the music therapist and child (Walworth, 2012) and therefore foster the skills required for the development of communication skills.

Kim (2006) also found music therapy to be effective in improving joint attention behaviours and the ‘motivational aspects’ of musical interaction between the child (diagnosed with autism) and therapist. Increased attention was also found to be significantly improved from music therapy intervention in the Cochrane review on music therapy and autism (Gold, Wigram, & Elefant, 2006). Gold et al. (2006) state that music therapy provided an opportunity for non-verbal social exchange, developing communicational skills, including eye contact, turn-taking and joint attention.

Music therapy has also been used to help improve verbal communication through the use of song. Lim states “A new speech pattern embedded in a song that is too familiar and not too complex may capture the best perceptual capacity in children with ASD (autism spectrum disorder)” (2012, p. 206).

The above findings support the notion that improvisational music therapy can be a successful intervention to promote communication (verbal and non-verbal) and social interaction.

## **2.8. Summary**

Improvisation is the creation of music in the present moment and is used in many musical settings such as performance and music therapy. Improvisation in music therapy promotes non-verbal communication and self expression and fosters reciprocal interaction between the client and therapist. When the client and the music therapist interact with each other, communicatively and expressively, they create a shared experience in which the therapeutic relationship can develop. As the creation of music continues to facilitate the growth of the therapeutic relationship, the client and therapist begin to experience each other in new and

insightful ways. This is important for development and can model social skills required in life, outside of the music therapy session. Music also has the ability to engage peripheral attention, which would be difficult to acknowledge through other mediums.

In the therapeutic process as the client and therapist develop their relationship, significant moments of interaction and/or change can occur. There are several different terms identified in the music therapy literature but all seem to mention the importance of music, the therapeutic relationship and the spontaneous nature of these 'meaningful moments'.

Meaningful moments in the therapeutic process are seen to be transformative and can create a shift in the clients perception of themselves or other (Amir, 2005). This is an important part of therapy as the therapist aims to foster the client's sense of self and being in the world.

It is music that is ultimately facilitating the shared experience and the connection between the client and therapist. Thus the importance of the musical relationship in music therapy is stressed in the music centred approach to be the fundamental purpose of the intervention. It is therefore important to understand the music and its process in order to promote change and new experiences of self for the client.

Furthermore, music therapy is found to be an effective intervention for children who have developmental needs, due to the opportunities music making provides for social exchange. Improvisation and music therapy in general has been found to motivate children to interact and subsequently foster and develop joint attention, communication, and speech and language skills.

## **Chapter 3. Methodology**

### **3.1. Aim**

The aim of this research is to develop an understanding of what is happening in the music surrounding meaningful moments of interaction between the child and me (music therapy student). What, how, and why meaningful moments of interaction happen in music therapy is of great interest to me. Interaction in music is fundamental to my practice as a music therapy student and therefore I believe researching this will help develop my practice as a music therapy student, and give me greater insight into music, my ‘tool’ as a student music therapist.

### **3.2. Secondary Analysis of Data**

This project uses secondary analysis of data (SA). SA is a methodology, which uses pre-existing data, collected originally for a different purpose, to conduct research (Heaton, 2004). In quantitative research SA commonly uses data that was collected for previous research, the data is then analysed a second time with new questions asked of it. However qualitative SA uses both naturalistic and non-naturalistic data, which was collected for a previous study or as every day record keeping (Heaton, 2004). Data for this research has been drawn from clinical records kept as part of practice procedure, ‘every day/session record keeping (at the music therapy student’s placement facility).

The purpose for using SA is to allow the researcher to ask questions of their clinical work in order to improve and develop their practice as a music therapy student. Furthermore the intention is to inform other music therapy students and professionals of the issues particular to the music therapy work at this placement. Using SA to examine my clinical data also



allowed me to conduct non-invasive research. This limits the ability to generalise my findings to other settings, since my work is highly contextual. Any findings and interpretations will predominately relate to my work as a music therapy student with each individual child.

### **3.3. Music Centred Research**

Music centred research is defined by Bonde “as any method within music therapy in which researchers gather data concerning the relationship between music and client experiences and behaviour” (2005, p. 489). This study focuses on the musical process and properties related to interactive/meaningful moments between the child and me.

“Because the musical specifics of the therapist’s interventions are directly related to the therapist’s rationale and clinical efficacy, music centred work emphasizes the importance of musical analyses of clinical work, both as a component of ongoing clinical work and in retrospect through research.” (K. Aigen, 2005, p. 114)

### **3.4. Micro-Analysis of Data**

The study draws on Holck’s ethnographic descriptive approach to video micro-analysis (2007). Holck details a process of gathering, transcribing, analysing and interpreting video data from music therapy sessions. An ethnographic descriptive approach involves observations rather than interviews in order to understand non-verbal, implicit ‘events’ in music therapy sessions. Furthermore in my work with children, interviews would not be fruitful or appropriate. Using observation allowed the ‘events’ in question to maintain contextual significance.

### **3.5. Notation**

Standard, western musical notation was used to transcribe the music in this study. I drew from Holck's (2007) approach using text and rhythmic notation; Parker (2011) who used pitched notation; Shaw (2006) who used pitched notation, text and the software Sibelius; Lee (1995) who encourages the legibility of the transcription (i.e. using hemi demi semi quavers and unusual dotted rhythms to describe 'slight differences' in the music between client and therapist only made it more complex and difficult to read, instead I aligned the 'slight differences', but mentioned the modification with text above the event as it occurred); and Bergstrøm-Nielsen (2009) with his approach to graphic notation (although I did not draw graphics to describe the music I incorporated the use of symbols and graphics for gestural actions).

Each transcription uses a similar format, but due to the variations of instruments used and the nature of the improvised music, each transcription contains its own 'key'. The symbols and gestural actions are explained with plain text and the boxed text encases my analysis and interpretive thoughts. Including the text on the score enabled me to remain focused on the music, the foundation of this study (not the description of the music).

### **3.6. Self Declaration**

At the conclusion of this study I had completed 1500 hours of practical experience as a music therapy student. As the purpose of this research was to develop my practice as a music therapy student, the findings predominately relate to me with the hope that others (such as music therapy students, music therapists and other interested professionals) will be able to draw from or relate to my experience. Data was recorded by me and therefore contain my opinions, thoughts and feelings. I was rigorous when gathering, transcribing, analysing and

interpreting data, but also used my intuition when required (Wolcott, 2009). This study therefore lays deeply in context.

My undergraduate study in performance jazz music gave me experience and an interest in transcribing improvisations. This has transferred into my music therapy practice in order to understand the music's essence and power.

## **Chapter 4. Methods**

### **4.1. Data sources**

Data were sourced from clinical data, which were kept as a part of procedure and protocol at the facility where I was fulfilling my clinical placement requirements. The sources are: video footage of music therapy sessions including music therapy student and child, progress notes that outline significant events, behaviour and goals related to individual's music therapy sessions as well as my reflective journal, which is a record of my interpretations and thoughts around the sessions and my learning as a music therapy student. Barry and O'Callaghan describe reflexive journal writing as an important process in which the writer can "self-critique and develop professionally" (2008, p. 55). My clinical progress notes and reflective journal highlight and reinforce my choice of video data, which demonstrate meaningful moments of interaction between the child (secondary participant) and me (music therapy student).

### **4.2. Secondary Participants**

All the data used in this study was collected for my clinical practice as a music therapy student and has been subjected to secondary analysis; there are therefore no direct participants in this research. However the children whom I work with in music therapy are considered to be secondary participants due to the personal nature of the data and the confidentiality requirements involved. Ethical procedures are presented in future paragraphs.

### **4.3. Research Process**

Data collected for clinical purpose, by the music therapy student, was reviewed and six meaningful moments from six different consenting clients was chosen for analysis.

Wosch and Wigram define the 'objects' for analysis as "*minimal changes in relationships or interactions between people or minimal changes in the music and in dynamic forces*"(2007, p. 14). Holck (2007) suggests that the data, or series of 'objects', can be selected by the researcher or clinician who wishes to examine a specific 'problem'. This could mean, for example, selecting a series of clips which were typical of a client's non-response. She also identifies an 'open analysis approach' in which the researcher or clinician is interested in all the kinds of interaction patterns that the participants have created together.

Building on Holck's (2007) examples, I reviewed my clinical notes to find examples of interpersonal moments that Amir (1996) describes as 'moments of musical intimacy between therapist and client' in which the therapist experiences "a powerful musical connection with his client that brought a feeling of intimacy between the two and resulted in new musical adventures"; or 'moments of physical closeness between the therapist and the client' in which a therapist has "some kind of physical contact with their client that brought a feeling of closeness and intimacy". Then I have illuminated the description by examining video data of those moments to determine what was occurring in the music prior to, during, and immediately after they occurred.

I chose a five-minute video clip from each client's video files, which were seen to include meaningful moments of interaction. The meaningful moment of interaction, as well as music and other behavioural actions leading up to and after the meaningful moment, was contained within the clip. Following this the clips were transcribed in detail, which included musical notation, music therapy student and child vocalisations, verbal and non-verbal interaction/communication, physical gestures and movements. Sibelius was the software used for publishing the transcriptions and Transcribe! was used to help play and slow down the video clips in order to produce detailed work. The transcriptions were then analysed

horizontally, to uncover repetitions of individual events, and vertically, to determine how individual events relate to each other in time and space (Holck, 2007). From the analysis of individual transcriptions the patterns or the lack thereof, emerged from the data as a whole. The next stage was to interpret the patterns, non-patterns and generalizations. Holck, (2007), acknowledges Wolcott, in the interpretation stage by referring to Wolcott's focus question "what do people in this setting have to know in order to do what they are doing?" (Wolcott, 1990, as cited by Holck, 2007, p. 34). Holck also questions expectations and their affect in a therapeutic setting (2007). In this study Wolcott's focus question was held in mind as I looked at the meaningful moments of interaction and worked to understand these moments in context to their clinical practice.

#### **4.4. Peer Checking**

Holck (2007) suggests using 'member check' as a tool to validate the analytical and interpretive elements of qualitative research. Because of the population involved in this study I used peer checking. A registered music therapist, who has skills in musical transcription and previous research experience in meaningful moments in music therapy, was asked to peer check one of my transcriptions along with the video recording to look for accuracy in the notation, analysis and interpretation. She found one instance where a vocalisation appeared to her as three repetitions instead of two, and one of my interpretations was more subjective than it needed to be; I thought the child's body language suggested discomfort as they turned away from me, however, it was proposed that perhaps the child simply got distracted by their reflection. It was further pointed out that this was very hard to discern and maybe my therapeutic relationship with the child had lead me to observe the body language in this way.

My lecturer was also able to reinforce the logic of my findings. She made comments about my practice and highlighted some of the techniques I was using and some I could utilise in

the future, which promote shared attention and interaction. At the time, these techniques had also emerged from my transcriptions and analyses as my findings, unbeknown to my lecturer.

#### **4.5. Ethical Issues**

At the time of writing, I, the researcher, was a student of the Master of Music Therapy program at the New Zealand school of Music. Dr Daphne Rickson, a registered music therapist who has a PhD in music, has supervised the study. The Code of Ethics for the practice of Music Therapy in New Zealand (New Zealand Society for Music Therapy, 2006) and the Code of ethical conduct for research, teaching and evaluations involving human participants (Massey University, 2010) were upheld throughout the research process, which took place over six months.

The Massey University Human Ethics Committee gave ethical approval for this project.

HEC: Southern A Application - 11/41, 15<sup>th</sup> August 2011

Permission to use the clinical records and video recordings was obtained from the placement facility where I worked (see Appendix: 1 and Appendix: 2); however, the video footage has not been shared in this study for confidentiality reasons.

Participants were given all the information they needed in order to give informed consent (see Appendix: 3). Parents/guardians were required to give consent for their children (under the age of 17years old) (see Appendix: 4). I obtained assent from the children, themselves, who were seen as competent to give consent/assent (Dye, Hendy, Hare, & Burton, 2004) (see Appendix: 5). Information sheets were given to participants in the appropriate language and wording. The participants had the opportunity to withdraw consent until the transcriptions were complete (before the analysis stage of the research).

Pseudonyms have been used for the participants (secondary) in this study, and the facility has not been named or linked to the research report. Confidentiality has been treated with great care. Anonymity could not be maintained due to my involvement as the researcher and music therapy student, the children I worked with became secondary participants. This was explained in the information sheets given out to parents and my placement facility.

As the researcher, I am aware of the limitations due to bias in the process of doing secondary analysis of data and have endeavoured to minimise this risk by carefully consulting the data and disregarding 'secondary' thoughts/interpretations/feelings which occurred when reviewing and analysing my clinical records as research data. Clinical records became research data four-six months after it was recorded.

The research did not use deception at any point.

#### **4.6. Summary**

A secondary analysis of clinical records/data identified six meaningful moments, from the individual music therapy sessions of six children. I notated the music and gestures that occurred during and surrounding the meaningful moments and then proceeded to analyse and interpret the transcriptions. I grounded my intuition and identifications of meaningful moments, in music therapy, through 'real' data: transcribed musical/non-musical meaningful moments of interaction. This allowed me to consolidate and generalize my findings in context to my practice as a music therapy student. The transcriptions and my clinical work were peer checked, adding validity to my findings.



## Chapter 5. Findings

All children in this study have been given pseudonyms for confidentiality reasons and ethical commitments.

### 5.1. Research Question and Findings

How can an analysis of what is happening in the music help us to understand and articulate a meaningful moment?

Engaging in detailed analysis of music led to the understanding that meaningful moments were shared experiences in the co-creation of music, which provided opportunities to foster a responsive interpersonal relationship between the child and therapist. They occurred because the music provided a framework for structure and change through synchronicity, regularity and flow as well as variation, tension, suspension, expectation and anticipation. They were facilitated by musical elements: rhythm, tempo, pitch, melody, harmony, timbre volume and dynamics; and musical techniques: imitation, pause, space, repetition, anacrusis and gestural actions.

This chapter details how these findings were uncovered.

### 5.2. Fleur

#### 5.2.1. Child and Music Therapy Context

Fleur was three years old, and had not yet developed speech. She experienced other development delays but music therapy focused on communication areas including self-

expression, and shared attention. I made a specific reference and video index to this ‘moment’ in my clinical notes relating to session three:

“Video: at 10.07 minutes, Fleur vocalises a rhythmic phrase which I take and create a song which allows space for Fleur to respond. Fleur responds in the appropriate places and naturally/musically, we share some laughing moments.”

This clip was also used, prior to the research, in a review meeting to highlight to the parents Fleur’s preverbal communicational skills. They appeared delighted.

### **5.2.2. Description of the Music**

The improvisation developed from Fleur’s vocalization involved four melodic phrases within each sequence (approximately 4 bars but varies due to Fleur’s response and musical pauses).

Call and response phrasing used: resolved and unresolved cadences, speech articulations, pitch inflections, rhythm and forward motion, space and repetition, over a I-IV-I-V chord progression.

### 5.2.3. Meaningful Moment from the Transcription

Refer to Appendix 8 for the complete transcription. Please note that interpretations (boxed text) and plain text are contextual to the complete transcription and many refer to, or include bars, that are not in this excerpt.

**Figure 1 Fleur's Meaningful Moment**

2

4 bars of explorative improvisation followed by silence/musical pause, MTS leaves space for F to communicate. MTS is expectant?

MTS Voice

6

maap maap maap maap maap maap maap maap maap maap maap maap maap

(7) 10.00 *ritenuto* *a tempo*

4 second pause (9)

a

Pause creates pressure/expectation/space for F to respond. F appears to be distracted by her reflection, but vocalisation indicates motivation to communicate/engage.

MTS Perc.

4 second pause

F Voice

F turns 90° from MTS to look at his reflection on the varnished wood of the piano stool.

This feels like a meaningful moment. F responds in the silence. F sets the rhythm and pulse for the MTS to engage with. Statement-like phrase. Improvised/new musical phrase

♩-100

a ya ya ya ya - ya

F picking up on MTS's rhythmic pattern briefly. Showing interest in engaging.

Triangle

F shakes triangle and beater in separate hands. No sound produced.

F Perc.

Key centre introduced Bb Maj.  
Up a semi-tone from initial vocalisations centred around A Maj.

Waiting for F to respond

MTS emulates F.

10  $\text{♩} = 100$  (11) (13)

MTS Voice

ya ya ya ya-ya ah ha ha ah det det det det dee ah daht daht daht daht daah yah

MTS vocal conversation. .... Musical non-verbal communication begins

MTS Perc.

F Voice

eye contact

ha

F appears to acknowledge MTS's participation

(1) (2)

haar..... haa

F Perc.

F responding at the ends of the musical phrases/  
in the gaps with both sound and movement (15 times).....

#### **5.2.4. Interpretation**

There was a very clear pattern of call and response in the interaction between Fleur and me (music therapy student); my singing or playing, followed by space or a musical pause, followed by Fleur's response. This pattern repeated throughout the excerpt, with little variations included. These variations appeared to promote specific responses in both Fleur and me. This interaction demonstrated Fleur's understanding of reciprocal interaction and showed self-expression through non-verbal communication.

When I imitated Fleur's vocalisations or her movements Fleur responded by giving me eye contact. Two specific examples appeared in bars 8-10 (Pg 30-31, also see Appendix 8). Fleur vocalised a new melodic and rhythmic phrase which I imitated and Fleur acknowledged me through eye contact. Bars 28-30 (Appendix 8) showed Fleur laughing (melodically), I then imitated the vocalisation, whilst continuing to use the rhythmic framework of the melodic phrasing (already established), and this was followed by a moment of eye contact and shared attention.

The space in between the phrases appeared to be critical in this musical interaction.

Sometimes the space appeared to be a silent reflective or expectant moment and other times more of a musical pause. The duration of the space was a significant factor in my interpretation, as well as the way the space was introduced. At bar 8 (Appendix 8) I interpreted the space as a reflective/expectant moment; the music introducing the space was resolved and finished in tempo, the duration was four seconds, and something new had emerged in the music. Bar 29-30 (Appendix 8) showed a similar pattern. The new material that emerged was Fleur beating on the floor. In bars 16-19 (Appendix 8) there was two occasions where there was space in the music, but the time signature had changed instead of using a pause (in order to describe the music as accurately as possible). These areas of space were introduced within the four-phrase-sequence, the melodic phrase had not been resolved

and the duration (approximately two seconds) had altered the pulse of the music but not the tempo. This described a ‘musical pause’. The space in bars 22-24 (Appendix 8) lasted approximately four seconds, but due to the music surrounding it and the responses from Fleur and me, I interpreted this space as a musical pause also. The musical pause seemed to validate the music making (corroborate our interaction), whilst the reflective pauses showed Fleur and I being with each other in the moment and sharing the meaningfulness of the moment.

Imitation and reflective/expectant space appeared to promote shared attention and interaction in the music. The responsive relationship was promoted when the space had been created through melodic and rhythmic structure whilst allowing flexibility in the tempo/pulse, pitch and timbre as we responded to the musical gestures of one another.

### **5.3. Peter**

#### **5.3.1. Child and Music Therapy Context**

Peter was five years old. He had difficulty sharing attention and often engaged in solo play. His verbalisations were repetitive and echolalic. The meaningful moment, highlighted in the clinical notes, occurred in the third session during the assessment period. Subsequently the focus areas for Peter were around developing self-expression, verbal communication and autonomy. His clinical notes emphasised the musical interaction between Peter (drum) and me (piano) and my reflections on the session were as follows:

“Peter’s contribution on the drums felt significant as he was not waiting to copy me but instead initiated and conducted (in a way) the shape and form of the song. I might have been

able to add a little more support and continuity in hindsight, but I'm glad I let him lead this activity, we can always build on it."

### **5.3.2. Description of the Music**

The improvisation was initiated by Peter as we started at the piano, but he moved away shortly after I began, to play the snare drum and cymbal, which were situated off to the left of the piano. Peter introduced the lyrics "play the drum", which I used to form the basis of our improvisation. Centred around the key of C major, with a simple I-IV-V chord progression, it modulated to D major and subsequently E major (at two minutes and 30 seconds). The tempo was moderate becoming slower in the middle and free towards the end. The improvisation had two sequences, which Peter initiated and alternated between: 1- a four bar theme which used the lyrics "play the drum, play the drum, Peter can play the drum" repeated. On the second repeat the melody was resolved; 2- a glissando vocalisation ("do-waap") up a one-two octave range. I imitated Peter when he initiated the 'call'. I left space for Peter to respond and potentially challenge expectations as to the structure and form of the improvisation. At one point Peter called out "no", and shook his beater in the air at the changes I made to the harmony, pulse and style of play. The improvisation demonstrated 'call and response' throughout and felt like a conversation through music. Tempo and pulse were temperamental as the reciprocal interaction alternated between Peter and me.

### 5.3.3. Meaningful Moment from the Transcription

Refer to Appendix 9 for the complete transcription. Please note that interpretations (boxed text) and plain text are contextual to the complete transcription and many refer to, or include bars, that are not in this excerpt.

**Figure 2 Peter's Meaningful Moment**

**P Voice**

13 00.30 00.35 00.40 3

$\text{♩} = 138$

doo-waap doo-waap doo-waap

P synchronises voice and beating the drum. These lyrics have not been used in sessions before.

P changes rhythm

P changes rhythm

P changes instrument

**P Perc.**

swipe swipe swipe swipe

**MTS Voice**

MTS responding to P's change in play

MTS matches P's play, rhythmically on the piano

MTS pauses in response to P.

Adding variation.... and repetition.

Sitting down on piano stool

**MTS Pno.**

*Ritenuito*  $\text{♩} = 138$



4

Call and response interaction. Appears to be uncertainty as to who will initiate structure and musical form. (perhaps MTS and P hoping the other will initiate)

This is the meaningful moment outlined in the clinical notes, as it was the first time in the sessions when P had initiated and created music lyrically. Until this session P had echoed lyrics and music making.

P responds in the silence.

P responds in the silence. Initiates song with voice and percussion.

20 00:50 ♩=88 1:00

P Voice

doo...waap

play the drum

P Perc.

P responds in the silence.

P sets tempo

loose grip strike

MTS Voice

MTS quickly picks up on P's vocalisation and imitates synchronously.

MTS responds in the silence. Anticipation created, whilst waiting is emphasised by the way MTS uses music.

MTS supports P's lyrics and reinforces his music and actions. The song is created.

doo...waap

MTS responds in the silence.

ooh...

play the drum

Phi-lip can play the drum

play the drum play the drum

MTS Pno.

MTS looks at P and turns head to the side to expose ear to P (as to gesture 'I'm listening/waiting')

MTS joins in and promotes/supports P and his improvisation.

#### 5.3.4. Interpretation

The music gave Peter an opportunity to lead and direct me; the music empowered autonomy. Peter created the “do-waap” and “play the drum” sequences and I developed a way to use these sequences (Peter leading), which allowed him to direct the way the music progressed and took form. I was able to frame and structure my responses to these sequences in a way that he could anticipate due to the imitative nature of my response. Although my response varied consistently, either in the rhythm, pitch, or accompaniment, it appeared that Peter understood that I would respond in an approximate way each time, therefore motivating him to continue to lead the music and alternate between the two sequences. In bar 49 (Appendix 9) Peter clearly verbalises disapproval as I challenged his expectations.

Simplicity in the melody, harmony and rhythmic accompaniment appeared to increase engagement and synchronicity between Peter and me. When I varied or modify the music using more complexity Peter appeared less engaged. Eye contact was difficult to observe due to the camera angle but both instances when Peter could be seen to be giving eye contact came after a pause or slowing in the music. Perhaps Peter understood the pause as a question. I changed the way I played to promote reciprocal interaction, as a question provokes a response.

The use of an anacrusis, in this transcription “oh...”, appeared to have motivated Peter to respond and initiate turn-taking/reciprocal interaction within the music.

Empathetic musical responses, imitation and repetition, appeared to enhance the shared experience Peter and I created together. Peter guided the form of the music through his alternating actions. It appeared his expectations are met when my response was imitative. This promotes synchronicity and shared attention. Anticipation, created by anacrusis, also

appeared to motivate creative and interactive play, further promoting the ability to share the experience; creating meaning.

## **5.4. Dexter**

### **5.4.1. Child and Music Therapy Context**

Dexter was four years old and had difficulty regulating his emotions. He had a strong attachment to his mother, who became an active participant in our music therapy sessions.

Dexter's focus areas in music therapy were to develop sustained attention, communication skills and self-expression. This moment was recorded in his clinical notes after session 18:

“Dexter came into the session appearing very content and had a large smile on his face.

Initially he explored the instruments and the environment, as he walked all around the room, finally choosing the ukulele and walking over to the drums with a grin on his face. He appeared to be listening to my musical responses to his plucking on the ukulele, his eyes and smile seemed to ‘light up’ - he had almost a cheeky facial expression.

Dexter wanted all the kazoos, and did not want to let me have one. He took the yellow kazoo off me as well as the guitar and djembe as I was using them, at various times in the first 15 minutes of the session.

“Dexter sat by himself at the piano and began to count and sing his own song as I came alongside of him with the guitar. I was able to encourage him to finish my phrases, I sang “1, 2, 3, 4...” and Dexter sang “5”. We repeated this several times and when I changed to “1, 2, 3...” Dexter also changed to sing “...4, 5.”; or I sang “5, 4, 3, 2...” and Dexter sang “1!” followed by “No, 5!” Dexter seemed to want to continue this activity further and I felt that he was engaged and calm in this moment/period. It was certainly a significant moment in respect

to the change and development of our relationship. Dexter allowed me to be a part of his play away from the comfort of his mother's lap/physical presence".

#### **5.4.2. Description of the Music**

The music in this transcription was improvised and semi structured using repetition and simple ascending melodic lines (in music therapy student's music). Using 'counting' in the lyrics from 1-5 and variations (i.e. counting from 1- 4 or 3) promoted call and response interaction. Simple I-V chord progression was used: during the more structured passages, chord changes were made every 2 bars; in the more 'free-time' passages, chord changes were introduced after every second melodic phrase. Dexter contributed to the music through playing the piano and chimes as well as using voice and movement/gestures. Movement and gestures influenced the improvisation as the music therapy student responded empathetically through the music.

### 5.4.3. Meaningful Moment from the Transcription

Refer to Appendix 10 for the complete transcription. Please note that interpretations (boxed text) and plain text are contextual to the complete transcription and many refer to, or include bars, that are not in this excerpt.

**Figure 3 Dexter's Meaningful Moment**

2

**D Voice**

7 4.55 5.00 5.05  
8 9 10 11

melodic speech  
one two

Complex play, co-ordinating voice and piano play... (imitating MTS from a previous occasion?)

D re-adjusts sitting arrangement

D adjusts piano stool after MTS has introduced counting. D places it at the treble end and close into the piano (as in previous sessions). Moving the piano stool suggests that D is motivated to play and acknowledges MTS's suggestion/play.

**D Pno.**

(LH)

**MTS Voice**

♩=88 (1)\* slight rit. (2)\* ♩=72

pian-o pi-an-o pi-an-o one two three four pi-an-o pi-an-o pi - an-o pi-an-o

Music is lively reflecting D's play seconds before.

MTS plays again once D has initiated play.

**MTS Gtr.**

C One chord used... simplicity.

\*MTS leaves space for D (x16).

Adjusts tempo, more space, less texture. Reinforcing the tempo through simplicity.

Structure and containment provided by pulse/continuity in MTS's music.... through to bar 24. D's responses appear reflective, reflexive, expressive (dynamic, rhythmic and pitch variation) and regular.

This feels meaningful as D responds constructively and musically to MTS (focus area and goal for D).

D matches MTS's pitch and responds in the musical 'gap'/space (x9)

5.10

12 12 13 5.15 14 15 5.20 (1) 16 5.23

D Voice

four - five

four! five

*mf* *mp*

D's music ascends as does MTS's

Refer to boxed text over page (bar 17).

MTS Voice

MTS leaves space for D.

(3)\*

Tempo and pulse set. Helping predicability and inviting D to join in.

one two three four five one two three four five one two three four

Repetition...and framed into a song.

Intentionally unfinished phrase to elicit a response.

(4)\*

MTS leaves space for D. Instead of a pause, a bar of 2/4 is added.

Guitar strum, without vocals helps to give song momentum in the 'gap'.

MTS Gtr.

G

#### 5.4.4. Interpretation

Dexter's responses and movements about the room appeared more focused and attuned to the music when I played with a steady tempo and pulse.

The space used in between phrases was varied and whilst the pauses usually elicited a response from Dexter, the whole musical process appeared to lack flow, regarding gestures and musical synchronicity.

The lyric variations I used promoted different responses from Dexter. As I counted from 1-5 Dexter showed an interest in making music alongside me; counting from 1-4 provoked Dexter to respond vocally and finish off my phrase, with '5' (and this was repeated several times during metred and pulsed music); counting from 1-3 challenged Dexter to respond '4' and '5'; it also motivated him to turn around and make eye contact with me, as if he wanted affirmation that he had finished the phrase. The eye contact appeared to demonstrate Dexter's awareness of my participation in the music making, more specifically that I was expecting him to respond and finish off the sequence. However, after the large pause, waiting for Dexter's response, the musical interaction appeared less engaging for Dexter as he returned to playing the piano without vocalisations.

Attunement and/or motivation occurred when I use a steady tempo and pulse in my playing, when the pauses/spaces in the music were carefully/intuitively timed, and when phrases were repeated. Anticipation/expectation also seemed to encourage shared attention/interaction. Anacrusis and pauses created anticipation in the music whilst varying repeated patterns challenged expectations. Both appeared to have motivated eye contact, promoting the shared experience of the moment in music.

## **5.5. Hannah**

### **5.5.1. Child and Music Therapy Context**

Hannah was five years old and had developed basic speech, but used limited babble in sessions. She was easily distracted by self-stimulatory activity (twisting and twiddling smaller objects) and appeared to find it hard to sustain shared attention. The focus areas in music therapy for Hannah are communication, self-expression and shared attention. I highlighted this ‘moment’ in my clinical notes from session 13:

Referring to the ‘rolly polly drum’ song interaction...

“This felt really new and having Hannah meet me in the middle like that, suggested to me that Hannah now wants to include me in her play as another human rather than a musical object.

And my reflections: “After two weeks off, Hannah was as active and engaged as ever. Her twiddling and twisting with the kazoo was present, but she did not appear to get fixed in this action and was engaged in the music whilst still twiddling. Hannah, I felt, is starting to really express herself more functionally and intentionally.”

### **5.5.2. Description of the Music**

The music was predominately a song, which was semi-structured, and Hannah and I were rolling the gathering drum (turned on its side) back and forth to one another. The lyrics and melody were repeated regularly and variations were improvised to incorporate and reflect the changes in the way Hannah and I interacted with each other. The music is initially in the key of G major, modulating up a semitone to C# major approximately one minute into the transcribed segment of music (bar 25, Appendix 11). The tempo fluctuated between 60-100 crochet beats per minute and pulse varied when I was trying to be empathic or synchronised



with Hannah; and steady when I was focused on providing structure and a ‘holding’ framework for Hannah to interact with.

I used space and pauses in the music which allowed Hannah to respond and express herself in the musical interaction.

There were elements of ‘call and response/echo’ as well as imitative and reciprocal play.

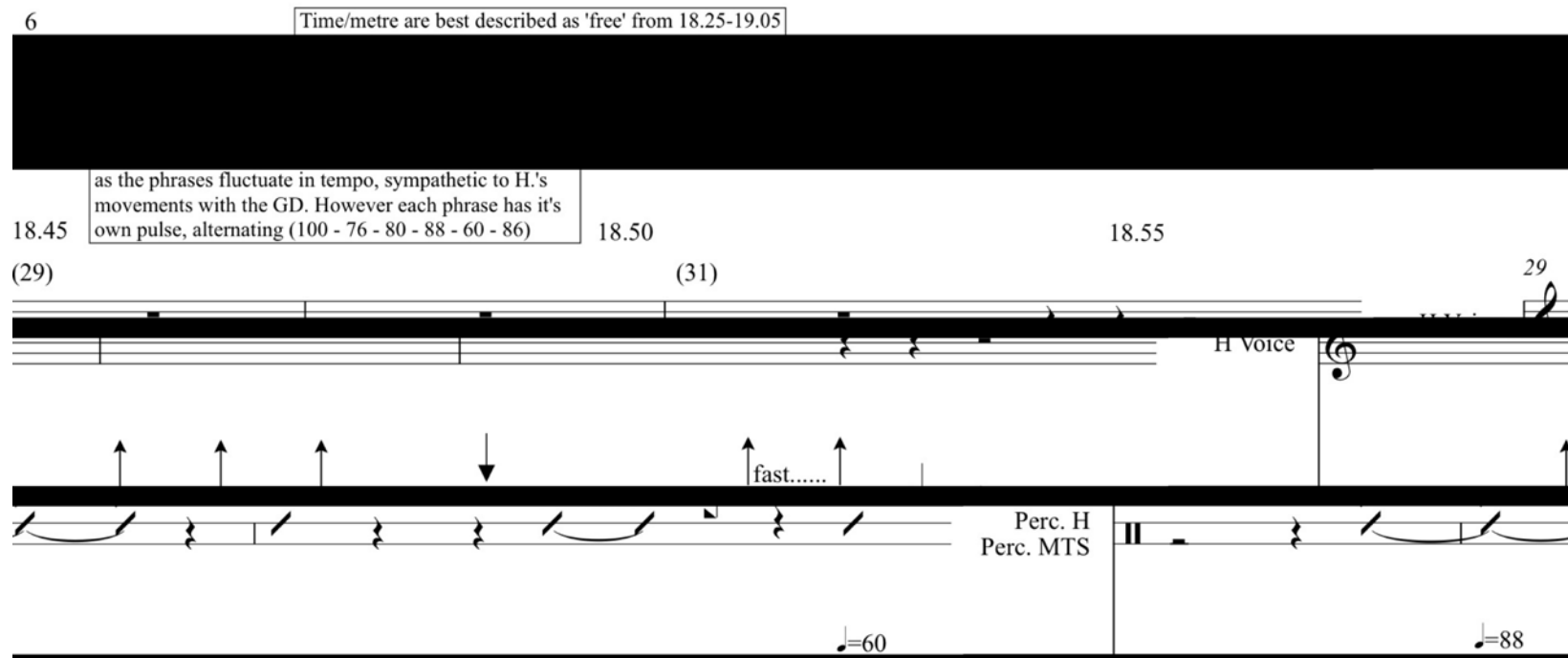
Also evident in the music was the repetitive play using musical and ‘non-musical’ (movement rather than sound based) elements.

Hannah’s gathering drum (GD) motions were the central element in this transcription. Tempo fluctuated, phrasing and lyrics changed, and gestural/body movements were all linked into the motion of the GD. Throughout this excerpt my intention was to encourage Hannah to “roll the drum” with direction, to me, consequently promoting turn-taking and reciprocal interaction.

### 5.5.3. Meaningful Moment from the Transcription

Refer to Appendix 11 for the complete transcription. Please note that interpretations (boxed text) and plain text are contextual to the complete transcription and many refer to, or include bars, that are not in this excerpt.

**Figure 4 Hannah's Meaningful Moment**



H appears to be disengaging from MTS, as H goes to 'hide' inside the drum.

Melodic question, using speech like articulation (pitching up at the end of phrase).

33 (33) 19.00 (35) 19.05 (37) 19.10

H Voice

Perc. H  
Perc. MTS

MTS Voice

H rolls the GD into the wall and then gets into/hides the open end of the GD (head in, legs out).

H rocks inside the GD.

H. responding...

H. strikes something which I can't see.

roll the drum to me?

are you rea - dy ee - ee?

one... two... (gasp)

Creating anticipation/tension...

♩=86

Shared connection physically, and highlighting H's attention to the interaction whilst appearing actively disengaged. This is a short period of focused attention between the pair. This moment of shared attention feels meaningful.

19.15  
refer to text below  
H laughs. Eye contact. (41)

19.20  
H and MTS tickle each others hands, close/physical interactive play.

19.25  
H puts hand on MTS's shoulder, then turns away to put her fingers up and down the guitar, which is on a stand off to the side. (43)

H Voice

Perc. H  
Perc. MTS

MTS Voice

three - ee - ee

ooh

creep-y sneek-y fing-ers

creep-y sneek-y fing-ers

refer to text below

Melody reintroduced with different lyrics emphasising physical play between H and MTS.

H and MTS are at their most intimate during this moment, which is sustained for 5 seconds.

H and MTS rush to meet each other in the middle of the room, having come from opposite sides of the room. They are face to face and positioned on their hands and knees (close enough to hug one another), and both laughing. They retreat to sit back on their knees and look at one another for 3-4 seconds in silence. MTS reaches out towards H with her hands on the ground and H reciprocates this action, connecting hands and fingers with MTS as she begins to sing again.

#### 5.5.4. Interpretation

Within the two minutes of music, presented in this transcription, repetition was used in different forms. Hannah's movement on the GD, rolling back and forth, was one example, the patterns of interaction she created from her movement was another. For example at bars 6, 11 and 19 (Appendix 11) Hannah rolled over the GD to a point where she lost balance and required support from me to keep her from going right over. Each of the three times this pattern occurred I vocalise: "weeeeeee" with an ascending and descending glissando, and Hannah and I became physically close, sharing the GD motion. The first two events were followed by a new response from Hannah; tapping the GD shortly after or vocalising along with the lyrics I was using. The third repetition of this event I responded to by increasing the tempo, the quickest tempo during the transcription.

The lyrics included four phrases, which repeated cyclically with variations and pauses added to create interest and reflect the interaction at the time. They were simple, directional (aimed at Hannah), emphasised active participation ("can you roll the drum to me?") and created anticipation as I counted (attempting to motivate Hannah to roll the drum to me) leaving the melodic line unresolved/with tension, on the dominant note (G#).

The glissandos created tension along with Hannah's actions with the GD. We both withheld active participation or reciprocal interaction through space and the silence/stillness we left. The expectant pause/space provoked curiosity and demonstrated shared attention when the silence/stillness was accompanied with eye contact or body/music gestures; such as in bar 28 (just after 18min 40sec) or bar 37 (just prior to 19min 10sec) leading to bar 39 (at 19min 15sec) (refer to Appendix 11).

Creating music around the movement of the gathering drum provided an opportunity for shared experience. The repetition in the song produced a framework for interaction and

created expectation/anticipation. Space and challenging expectations/repetition and variation created tension and appeared to motivate Hannah to actively participate and engage in the music.

## **5.6. Max**

### **5.6.1. Child and Music Therapy Context**

Max was five years old and attended school. He could communicate verbally yet appeared to have minor difficulty with processing and organising his thoughts. Max had poor co-ordination and his attention span was short, due to his active nature. Max's focuses areas in music therapy were developing his attention and focus, co-ordination and confidence. I recorded this 'moment' from session 10:

"Max used vocal improvisation today more than ever and initiated his own song (using the 'copy me' melody) around dismantling the xylophone and the letters associated to each key. I was able to join in and support Max's actions and lyrics.

His attention was focused on the xylophone keys, taking them on and off, until the end of the song/activity. Max showed co-ordination beating on the ground with pulse and he copied some simple actions. He appeared confident as he improvised a song and suggested/initiated activities whilst including and engaging with activities/contributions too."

### **5.6.2. Description of the Music**

The music in this transcription flowed on from a 'copy me' song. We were using primarily call and response interaction and at times created shared pulse or I had at least been able to match Max's tempo and approximate his pulse. We were in the key of C, due to the tuning of the xylophone. The first section (35 seconds) was fairly free and explorative, followed by a

short passage of clearly demonstrated call and response/echo (10 seconds). Max then improvised lyrics describing his actions (borrowing the melody from the 'copy me' song). Max's idea initiated a call and response song, which I lead and Max responded to in the spaces left. The music became semi structured, with tempo remaining flexible, whilst the lyrics created a framework for call and response (improvised interaction).

### 5.6.3. Meaningful Moment from the Transcription

Refer to Appendix 12 for the complete transcription. Please note that interpretations (boxed text) and plain text are contextual to the complete transcription and many refer to, or include bars, that are not in this excerpt.

**Figure 5 Max's Meaningful Moment**

2 5 (5) 23.20 (7) 23.25 (9) 23.30 (11) 23.35

M Voice

M Xyl.

M Bongos

MTS Voice

MTS Xyl.

MTS Bongos

Annotations:

- M stops first, MTS follows.
- M imitates MTS with trill action on the Bongo
- (2s)
- Becoming slower
- (3s)
- M stops first, MTS follows.
- Voice descends as tempo decreases
- M lifts both beaters into the air
- be the same as M.
- oh -
- pp
- Leaving space to create framework for call and response.
- MTS follows M and lifts both beaters into the air.
- MTS finishes after M.



23.40 (13) 23.45 (15) 23.50 3

M Voice

M Xyl.

M Bongos

MTS Voice

MTS Xyl.

MTS Bongos

Call and response, MTS follows, M leaves space for MTS to respond.

Call and response: MTS echos accurately rhythmically and approximately with pitch matching.

The musical score is arranged in five systems, each with a staff for a different instrument or voice. The first system is for 'M Voice', the second for 'M Xyl.', the third for 'M Bongos', the fourth for 'MTS Voice', and the fifth for 'MTS Xyl.'. The sixth system is for 'MTS Bongos'. The score is divided into measures by a vertical line. Above the first staff, time markers '23.40', '23.45', and '23.50' are placed. A bracket groups measures 12, 13, 15, and 3. The 'M Voice' staff has a treble clef and a key signature of one flat. The 'M Xyl.' staff has a treble clef and a key signature of one flat. The 'M Bongos' staff has a bass clef and a key signature of one flat. The 'MTS Voice' staff has a treble clef and a key signature of one flat. The 'MTS Xyl.' staff has a treble clef and a key signature of one flat. The 'MTS Bongos' staff has a bass clef and a key signature of one flat. The 'M Voice' staff has a single note in measure 12. The 'M Xyl.' staff has a melodic line starting in measure 13. The 'M Bongos' staff has a single note in measure 12. The 'MTS Voice' staff has a single note in measure 12. The 'MTS Xyl.' staff has a melodic line starting in measure 13. The 'MTS Bongos' staff has a single note in measure 12. Annotations describe the call and response structure: 'Call and response, MTS follows, M leaves space for MTS to respond.' and 'Call and response: MTS echos accurately rhythmically and approximately with pitch matching.'

4

M begins to take the D key out, appears to stumble slightly, which pops the B key out (mid-range).

Clinical notes describe this moment as meaningful, as M uses melodic speech to reinforce his actions. M borrows the melody from the 'copy me' song but creates original lyrics. M is reported to have used vocal improvisation more in this session than in previous sessions, and this was the first time he initiated his own song.

M. creates a song around his actions.

Kneeling and bending over to be at eye level, 'looking' at the xylophone.

17 (17) 23.55 (19) (21)

M Voice

B and D out. Ta-ke B an-d D out - and - put them on -(sigh) hum - look at

*mp*

M Xyl.

M Bongos

MTS Voice

MTS Xyl.

MTS Bongos

Finishes phrase an octave lower than M.

MTS takes B and D keys out taps them together 3 times and places them to the side.

MTS follows M's lead, using rhythm to emphasise the action of removing the xylophone keys.

#### **5.6.4. Interpretation**

The overriding technique used in the music was ‘call and response’ and the use of space and focussed listening, in order to respond to one another reflectively and empathetically.

Initially I was imitating many of Max’s actions and gestures in the music with seemingly little response from Max. I was following Max’s pulse, tempo, dynamic and when he started and stopped making music/actions. I left space between the phrases/music I played, and responded in the spaces/pauses, which Max left.

Sometimes we created music sympathetic with one another, where we were playing in time together using the same instruments, actions and pulse (for example bars: 2-3, 9, 27, 34. Appendix 12).

These instances were short in duration and do not seem to provoke sustained engagement. There were other phases in the music showing, what I interpreted as, empathetic music making between Max and me. In these instances the music showed sustained attention for longer periods of time, imitative or approximate play, turn-taking (which suggested waiting and listen to each other), we used similar or different instruments and at times there was only one of us playing while the other listened/paused/waited. The empathic music seemed to provoke reciprocal interaction, sustained attention/engagement and shared eye contact.

This transcription also showed clear instances where we lead or followed one another; demonstrated predominately through ‘call and response’ interaction and imitative play. Max lead the majority of the music through until bar 28/just prior to 24.30min (1.30min into this transcription. Appendix 12). As I began to lead Max follows, responding to the music/calls I made. At no point did I reintroduce the ‘copy me’ song and verbalise that it was now ‘My’ turn to be copied. Max appeared to understand that it was my turn to lead and his turn to follow/respond to the interaction I initiated.

Max had the confidence to follow.

Through space, musical pauses, imitation and repetition we set up reciprocal interaction.

Max, in response, constructed new lyrics whilst returning to familiar structural elements of the musical improvisation. In the therapeutic environment, intuition and empathy seemed to shape our responses. Max also appeared to have adapted what he had learnt from one situation to his current situation, thus generalising his learning.

## **5.7. Kurt**

### **5.7.1. Child and Music Therapy Context**

Kurt was five years old and attended school. He had difficulty managing unfamiliar situations and sought to control his environment. He was quick to set up rules and boundaries for play and interaction in our sessions. He often used verbal communication to disrupt musical engagement, making it difficult to explore improvised music with him. Focus areas for Kurt were shared attention and self-expression. This moment, recorded in his clinical notes, is from session 13.

“We engaged in perhaps our longest period of non-verbal communication/interaction/improvisation to date. I played piano and Kurt played the ocean drum, at first on the stool beside me then rolling it along the piano keys and onto my fingers, sometimes stopping them from moving, and up long my arms/over my body. Kurt lent on me and was very close to me during this period. We smiled together and played very creatively and freely.”

### **5.7.2. Description of the Music**

The music in this transcription was free improvisation. Many different themes were used in my piano play as I attempted to reflect and empathise with what Kurt was doing, with the ocean drum and piano. At times the music provided a ‘grounding’ accompaniment, where there was pulse and a fairly regular tempo, referred to as holding in the music therapy literature (Wigram et al., 2002). Other periods of the improvisation were less settled as Kurt and I were quick to respond to one another making the music feel ‘jumpy’ and sporadic. Many themes are developed from this reciprocal interaction.

### 5.7.3. Meaningful Moment from the Transcription

Refer to Appendix 13 for the complete transcription. Please note that interpretations (boxed text) and plain text are contextual to the complete transcription and many refer to, or include bars, that are not in this excerpt.

**Figure 6 Kurt's Meaningful Moment**

18

Space left...and K responds.

♩=80

shake

74

K Perc.

(75)

K lifts hands OD balancing on piano stool

eye contact

(77)

K leans over OD and appears to look into it.

K lifts the OD up to the piano and rests it vertically on the keys.

26.50

K acknowledges MTS and then joins MTS at the piano.

MTS and K are now side by side. K allows a musical connection and an increasing physical connection.

K Pno.

New theme

♩=80

light swing feel/laid back

MTS Pno.

MTS responds to K's rim taps with a sudden change in play. Imitating K's rhythm.

\* Ped.

MTS brings in a new accompanying theme, and sets a tempo.

78 26.55 (79) K rolls the OD from the treble -bass end of piano. 27.05 (83) 27.21 19

This is the meaningful moment the clinical notes refer to, emphasised by the music itself as K joins and includes MTS in his musical experience.

see text below\*

K Perc.

OD on Piano

K moves closer to MTS as OD rolls down to the MTS's end of the piano. Now touching side by side, even as K rolls the drum back up the treble end of the piano, K remains physically close to MTS.

K Pno.

*pp*

*mp*

MTS Pno.

MTS pauses at K's action.

MTS using fist to 'ripple' down the piano at random intervals

MTS helps K roll the OD right to the bass end and half way up again. K appears to push MTS hand off OD

see text below\*

MTS responds to K.

\*

The improvisation feels to change dynamically here, as the interaction becomes focused on the motion of the OD and the music this makes (new movement?).

\*K continues to roll the OD over the piano keys exploring the full range of notes, or just sections of the range. MTS observes, does not join in. Then at 27.22, K balances the OD on the keys and begins to play the piano, MTS joins in at this point. K begins to roll the OD again.

#### **5.7.4. Interpretation**

Kurt used the ocean drum (OD, as referred to in the transcription) initially more as an object (which made sound). Kurt's approach appeared systematic and inquisitive, until the moment at bar 51 (Appendix 13) when Kurt lifted his hands off the ocean drum, I reciprocated this by lifting my hands off the piano, creating silence. Then, at bar 53 (Appendix 13), Kurt struck the rim of the balancing ocean drum and made eye contact with me. As we continued, Kurt's play appeared to become more musically orientated as he used the ocean drum more dynamically and percussively. Then at bar 67 (just before minute 26.15. Appendix 13) Kurt, again, engaged with the musical nature of the instrument by striking it repetitively/rhythmically and gave me eye contact whilst doing so. I matched Kurt's intensity on the piano and this formed a new theme, which felt to me as though the improvisation had reached a 'peak' or the climax. After 20 seconds of this theme, and Kurt playing the ocean drum simplistically, Kurt repeated his pattern (mentioned above at bars 53 and 67) at bar 73 (Appendix 13). This time I continued to develop the piano theme I was playing and acknowledged Kurt through eye contact and ended my playing by imitating the 'rim taps', Kurt played on the ocean drum. Kurt repeated his pattern by lifting his hands off the drum and giving eye contact, however he then lifted the drum up to the piano and proceeded to roll the drum down the piano keys, which produced sound and music from the piano and the ocean drum.

#### **5.8. Answer to Research Question Restated**

Meaningful moments were shared experiences in the co-creation of music, which provided opportunities to foster a responsive interpersonal relationship between the child and therapist. They occurred because the music provided a framework for structure and change through synchronicity, regularity and flow as well as variation, tension, suspension, expectation and



anticipation. They were facilitated by musical elements: rhythm, tempo, pitch, melody, harmony, timbre volume and dynamics; and musical techniques: imitation, pause, space, repetition, anacrusis and gestural actions.

## **Chapter 6. Discussion**

### **6.1. Research question**

How can an analysis of what is happening in the music help us to understand and articulate a meaningful moment?

Music was the foundation to each meaningful moment analysed in this study and both child and I were involved in creating the music. Our actions, whether instrumental, vocal or gestural, were a product of the environment and were subsequently contained as musical actions within the improvisation. For example, Kurt (Appendix 13) began to explore the ocean drum as he raised and lowered it over his head and then rolled it over the piano stool. This appeared to be action/play orientated rather than musically orientated to begin with; however, as the piano accompaniment responded to the movement of the ocean drum, Kurt's 'actions' began to reflect and respond intentionally to the music making as a whole. This was seen through eye contact and physical closeness; and heard through the elements of music: tempo, rhythm, dynamics and timbre.

Thus Kurt was musicking. Musicing/musicking is a term used in musicology (Elliot, 1995; Small, 1998) and music therapy (K. Aigen, 2005; Krige, 2008; Mariko, 2011; Valgerdur, 2002), which suggests "to music is to take part, in any capacity, in a musical performance, whether by performing, by listening, by rehearsing or by practicing, by providing material for performance (what is called composing), or by dancing" (Small, 1998, p. 9). Elliot further highlights the intention behind the act of making music: an informed 'doing' (1995). The meaningful moments in this study appeared to work within the concept, musicking. The

meaningful moments all involved music and the intention to communicate/interact between the child and me.

The concept of musicking gives meaningfulness to the 'moment' from a theoretical point of view. Intention, in the act of musicking, alludes to musical knowledge (separate from knowledge of music), which Aigen suggests is implicit and in fact activated by musicking (2005). Musical knowledge is a form of embodied knowledge, which identifies cognitive and interactive abilities through the process of musicking. These abilities may not be apparent in other acts/forms of doing for the client (child in this case) (K. Aigen, 2005). Nordoff and Robins (2007) constructed the term 'music child', which suggest that all human beings are innately musical. This concept draws on the receptive, cognitive, and expressive abilities of every child in response the experience of music making. For children (and other individuals) who have difficulty using verbal language to demonstrate receptive, cognitive and expressive abilities, musicking can facilitate and promote these abilities giving the individual meaningful shared experiences.

The shared experience in music making provides a foundation for the child and therapist to learn, grow and develop their therapeutic relationship (K. Aigen, 2005; Bruscia, 1987; Bunt & Hoskyns, 2002; Nordoff et al., 2007). Relationships are essential for human beings to grow and develop, especially the parent-infant relationship. Various conditions and pathologies make the formation of such relationships difficult, especially when receptive and verbal language is delayed during child development. The therapeutic relationship is by no means a substitute for the parent-infant relationship, but has the ability to foster such an essential relationship through music. By applying the concept that all human beings are innately musical regardless of their condition, music therapy aims to meet the child, and their abilities, through musicking; therefore creating a shared experience and furthermore a responsive therapeutic relationship. For example as Hannah (Appendix 11) engaged in what appeared to

be exclusive self-stimulatory play, rocking back and forth over the gathering drum, as I used melody and lyrics to contain and reflect Hannah's actions she continued and began to make eye contact with me and include me in moving the gathering drum. Through this interaction we were physically close, more so than in previous sessions; our relationship developed.

In improvisation four different relationships are formed: Intra-musical, intra-personal, inter-musical and inter-personal (Bruscia, 1987). Drawing from the music centred music therapy approach the, inter and intra-musical relationships are the basis on which the music therapy is grounded (K. Aigen, 2005). In this study I have focused on the inter-personal and inter-musical relationship and sought to ground my findings in the observable data: the transcriptions and the video recordings. I found that it was through the responsive inter-musical relationship that meaningful moments in music therapy occurred.

Amir (2005) found interpersonal meaningful moments included physical closeness and musical intimacy. I found this to be a factor in the meaningful moments I experienced as well. Physical closeness was a prominent factor in Hannah's and Kurt's meaningful moment as we shared our instrument and personal space, whilst musical intimacy factored in every meaningful moment of this study. The musical intimacy was observed through "musical connection on a new level" (2005, p. 154) or a particular difference/shift in our musical interaction. The co-creation and development of a new idea or theme appeared to demonstrate musical intimacy when the child and I became synchronised in the music or a moment of silence/pause motivated body language or gestural actions, which show awareness of other in time and space (such as eye contact and laughing).

The meaningful moments in this study were observable in physical time (Robbins & Forinash, 1991) and varied in duration. Some lasted for a few seconds and others for minutes. In the peer checking process I asked the music therapist to identify what she thought the meaningful moment to be in one of the transcriptions. She identified a two minute period of

time, which contained the meaningful moment, whilst I had perceived the meaningful moment to be two bars (three-five seconds).

Creative or now time (Robbins & Forinash, 1991) also appeared in the transcriptions as there was newness and spontaneity in the responses of both participants. Perhaps it is in this 'time' when transformation takes place for the client. "Transformation is not always experienced as change from one thing to another, but can be a more subtle process of changes in the ways we perceive and understand our world" (Stewart, 2004, p. 281). In the transcriptions, and more specifically during the meaningful moments, subtle changes were evident in the interaction between the child and me. In that moment, 'now time', both the child and I appeared to experience something new in our musical relationship or in the way we perceived each other through music.

The meaningful moments were initially identified as short periods of time and contextualised by the music surrounding them; however through the analysis and interpretation stages of the research process it has become apparent that the meaningfulness of the moment exists because of the context that surrounds it. The music surrounding the 'meaningful moment' has every bit to do with the meaningfulness of the identified moment, because the 'surrounding' music has highlighted the change or newness of the 'meaningful moment'; furthermore the meaningful moments lay deeply in context to the child's life and the way they present at the time of the event. Much in the same way I have come to understand the music making experience as one that includes all musical and 'non-musical' gestures/actions; the meaningful moment includes the music surrounding it. The term, 'meaningful moment', need not change due to the flexibility of the word moment, but my understanding of the term has become more dynamic with regard to duration and the importance of the context encompassing the 'meaningful moment'; the meaningful moment experience. To counter this point each meaningful 'experience' did have a point in time that emphasised its significance.

The meaningful moments occurred because the music provided a framework for structure and change through synchronicity and regularity/flow as well as variation, tension, suspension, expectation and anticipation. Wigram (2004) refers to the importance of the musical framework for transitions in music therapy. Transitions are “the process by which the music of the therapist and the client(s) moves from one musical framework to a new musical framework” (Unpublished communication: Wigram, 2001, as cited in Wigram, 2004, p. 140). This is created through varying elements within the musical framework, which produces movement and change, and is an important process in the therapeutic environment and in shared experiences of music making (Wigram, 2004). The musical framework was found to be important in the meaningful moments of this study.

Drawing from Wigram, the framework created in the music gave the child and I a foundation within which to ‘play’. Themes would form and change as the environment and interaction changed, creating movement and change in the improvisation. Often these changes promoted something new in the music and interaction between us, such as when Max (Appendix 12) began to sing and created original lyrics whilst using a known melody. This new approach to the song formed the foundation for the next period of reciprocal/shared interaction: the new musical framework. Important to note that there was a 35 second period of time that existed between the end of the initial song/melody and Max’s adaption to the lyrics. During the 35-second period we engaged in imitative play and ‘call and response’ interaction. Whilst there was intention and structure during this period, there did not appear to be direction in the music. Wigram refers to this transition (from one musical framework to another) as a ‘limbo transition’. A space in which the “therapist waits to see what the client could or should do next” (2004, p. 144). This can create anticipation, expectation and suspense and the potential for something new/change to occur in the music, as was the case in Max’s example. The

limbo allows the client space and time to reflect and wonder what might come next in the music/therapy process (Wigram, 2004).

In the music, which Kurt (Appendix 13) and I improvised, it appeared to me that the whole transcription was in a 'limbo' state, up until the meaningful moment when Kurt places the ocean drum up on the piano. As the themes in the music continued to change and develop so too did the direction and flow of the music. The music I made seemed to change as Kurt's actions changed, sometimes the music prompted a dynamic response from him and others appeared to go unnoticed or ignored. Looking at the difference between the responsive and apparent non-responsive reactions from Kurt, it appeared that Kurt reacted more actively when the themes used gradual and subtle changes, for example at bars 29-31 (Appendix 13). Kurt returns to playing the ocean drum as I, at the piano, provide a steady and simple accompanying bass line while slowly increasing the tempo. Again at bars 66-68 as the bass line in the piano ascends slowly whilst a trill figure is played in the treble register, Kurt, at bar 67, began to strike the ocean drum. He changed and introduced a new approach to playing the ocean drum in this improvisation. This seemed reminiscent of what Wigram (2004) describes as 'seductive' transition, wherein the transition between musical frameworks is smooth, gradual and subtle.

I found that synchronicity and regularity and/or flow helped to maintain the structure of the music whilst change occurred when the music had variation, tension, suspension, expectation and anticipation. These are all techniques identified by Bruscia, 1987, as important in music therapy improvisation. I was able to identify many of Bruscia's (1987) music therapy techniques:

- Techniques of empathy: imitating, synchronizing, incorporating, reflecting, exaggerating.
- Structuring techniques: rhythmic grounding, tonal centre, shaping.

- Elicitation techniques: repeating, making space, completing (call and response), modelling, interjecting (waiting for space), extending.
- Procedural techniques: pausing, conducting, receding.
- Redirection techniques: introducing change, modulating, intensifying.
- Techniques of intimacy: sharing instruments, bonding (through theme or music, which becomes a part of the relationship).

These techniques are created and facilitated by the music through the educated and intuitive use of the elements of music: rhythm, tempo, pitch, melody, harmony timbre and volume. It is the use and variation of these elements that creates the style or genre of music produced and subsequently the emotion portrayed. Musical expression comes from the ability to vary and explore the elements of music. In improvisation the elements of music are used for self-expression in the environment at the time of playing. In verbal language, there are endless ways to combine words and sentences and the more vocabulary and grammar you acquire the more options available. This is similar in music, a non-verbal language, wherein the greater the technical skill (of the musician) the more variations and options one has to choose and use expressively.

However, there is a lot to be said for simplicity, and limiting the options can enhance musical expression (Wigram, 2004), such as limiting the choice of pitch to a pentatonic (five note scale) or only using the drum and focusing on the timbre and rhythmical variations possible. In music therapy Fleur (Appendix 8) and Peter (Appendix 9) responded more actively then the music was simple. I do not use simple in a degrading way, but to describe the paucity of complex elements. Each example used in this study involved no more than three instruments, including voice; used common chord progressions (harmony); common time signatures (tempo and pulse); rhythmical elements were often repetitive; and the melodies were phrase like encompassing a small range of pitches. Kurt's (Appendix 13) example differs from this generalisation as I would describe it as a free improvisation. There was no key signature, the



pulse and tempo varied, volume changed momentarily as did the rhythm and there was no voice or melody used to hold structure and actions in time and space. However, this free improvisation included only the ocean drum (played by Kurt) and piano (which I played). The ocean drum was limited to exploring timbre, rhythm, volume and pulse and the piano appeared to be matching and reflecting this play.

As a musician, the elements of music are the focus of one's technical practice. The greater the technical facility one has on an instrument the greater the technical expressive range of the musician. However musicianship, and more specifically clinical musicianship (K. Aigen, 2005; Lee, 2003; Nordoff et al., 2007) requires technical facility, the ability to listen and consider the client's needs in order to enhance the musical experience to benefit the client's enjoyment and emotional expression. It is with these skills that the music therapist can connect with the client and encourage non-verbal expressive communication through the shared experience of music making. It is through this connection that meaningful moments are created. Hannah's transcription (Appendix 11) is an example of simplistic musical improvisation and playfulness, wherein the voice and a simple repetitive melodic phrase are used to facilitate the shared experience and subsequently a meaningful moment.

The findings highlighted the importance of expectation and anticipation in meaningful moments, pointing to the relevance of musicological theories of expectation. "The principle force for music's emotive power lies in the realm of expectation" (Huron, 2006, p. 2). In music the structure of the melody, which includes pitch, tonality, intervallic movement, ascending and descending movement, and phrasing, and timing can foster expectations and direct attention (Huron, 2006). Enjoyment of an event has been found to increase when the music is familiar. This is not duration specific and includes repetition within the music, similar musical frameworks used/borrowed from previously heard music, or whole events (i.e. a favourite song). Familiarity can provoke associations from one experience to another,

which elicit positive emotional responses. For example the notion of ‘good’ music varies between individuals and it is usually the amount of exposure and the environment associated that forms the individual’s opinion. As the incidence of exposure increases so too do the positive associations, and hence enjoyment. In music, including improvisation, expectations occur at conscious and unconscious levels of awareness, such as key centre, metre, tempo/pulse, and can help to direct attention (Huron, 2006). It is the balance of these elements that appeared to create expectation in the transcriptions of this study.

Huron (2006) states that when expectations are ‘violated’ or anticipation is misjudged, an individual can end up surprised. In music surprise can lead to laughter, awe and ‘frisson’ (described as the chills up your back in response to the music). I found laughter to be present in the meaningful experiences of this study, in particular during Fleur’s example where there is a moment of sustained laughter and apparent shared attention as I imitate a laughing-like vocalisation that Fleur makes whilst incorporating it into the melody of the improvisation. This seems to challenge Fleur’s expectation of the usual musical framework, causing surprise and subsequent laughter. As I reciprocate the laughter we share the experience in that moment together. Gfeller also refers to Meyer’s (1956) theory of expectation, wherein “we develop expectations by comparing incoming sensory information with past listening experiences” (Gfeller, 1990, p. 74). She suggests the familiarity of the musical elements and style of music can provoke an expectation in the client, and if the client acts on the expectation they demonstrate cognitive processing of the music.

In music therapy does the experience form the relationship or does the relationship create the experience? I have found both to be true at different levels. Firstly a shared experience must be encountered in order for a relationship to form; without the experience two people cannot meet and connect in physical time. However as the relationship develops through

‘musicking’, new experiences are created for the client and therapist, which in my experience felt meaningful and further developed the relationship between the child and me.

## **6.2. Reflections on the research process**

One of the initial challenges I faced was choosing which meaningful moment to include from each child and deciding how to contextualise that moment within a session. Lee (1995) only selected piano improvisations when he transcribed music for analytical purposes due to the difficulties of transcribing other percussion instruments in what can already be complex music. It became apparent that I needed to highlight and transcribe the process in the music rather than focussing on the outcomes of the music. (Lee (1995) reinforces the importance of the process of the music as opposed to the product of the music in music therapy). With this in mind I was able to select the music surrounding the meaningful moment, which I thought showed the development and process of the meaningful moment.

Secondary analysis required me to look back over clinical notes and video, which I had kept for clinical purposes. At the time of writing the notes, the moments, which felt meaningful, were very recent. As I continued to work with the child new experience and abilities developed and transcended these ‘old’ moments. And so, as I looked back over five months of music therapy process and progress I felt as though the meaningfulness of some of the moments had been over taken by the child’s own development.

When transcribing the music I had selected it soon became apparent that my training as a jazz musician and past experience of transcribing were influencing the way I heard the music. I kept ‘margin’/transcribing notes as I worked and found myself questioning the placement of the phrase in relation to the pulse and metre of the music; for example, did I hear a ‘pick up’ or anacrusis? Or was the child actually aiming for the down beat/first beat of the bar? There was always a question with regard to the time signature; was it a bar of six crochet beats or

four beats with a two beat pause? If there was repetition and consistency I considered the music read more clearly as a bar of six crochet beats. Wherever possible I aimed to notate the music as simply as possible, often the child and I were close but not quite synchronised, in these instances I did not use hemi demi semi quavers to show the slight difference but instead mentioned the slight difference with text.

As the researcher and music therapy student involved in this project I found it challenging at times to have "no expectations", allowing the qualitative research process to guide me as well as the 'proposal outlines' I made. However it was also important to remain flexible when following the proposal I had made. This was the first time I had carried out masters' level research and I had to adjust the amount of data I had hoped to collect as it was not manageable or appropriate for the scope of this project. The importance of collecting rich data was far greater than the quantity of data I collected.

I was also aware of the way the data/transcription changed as I reviewed and revisited it. There was always more detail, which could have been added, but again due to the scope and deadline for this study it was important to make a point where I no longer changed the transcription in relation to the video clip.

### **6.3. Reflections on the consent/assent process**

All parents were quick to give consent and seemed very happy to do so, and I did not feel as though I had put any pressure on them to return the forms so quickly. Naturally, I think there was an element of gratitude, from the parents of the child, for the work I did and the relationship formed between us. Therefore by giving their consent and allowing me to use their child's data/clinical notes they showed a level of appreciation which I had not expected. I had unconditional regard for all the families I worked with and did not feel that my project altered this in any way; this was reinforced by the ethical approval given to this project.

I felt two children who I wanted to include in my study were capable of giving consent. First asking their parents before asking them, they were asked to sign by a 'thumbs up' picture (see Appendix 5). Both children wanted to be a part of my 'story' and mentioned that they had signed the form in the following music therapy session. When the child mentioned the consent form I noticed a sense of empowerment in both of the children. This felt meaningful too.

#### **6.4. Relating to Clinical Work**

I valued the peer checking process and found that both my lecturer and the external registered music therapist validated the research. My lecturer knew me and the way I worked as a student music therapist, but was not aware of my findings, while the external music therapist had not met me but had conducted her own research, transcribing and analysing meaningful moments in music therapy. It was a powerful experience to see my clinical work backed up by evidence generated from this research project.

Initially, and egotistically, I thought I was 'looking' for elements in my music that I had *made* in sessions to create/facilitate the meaningful moment. I now realise that there was a much bigger picture and that the music as a whole experience was important to the 'moment'.

Movement, gestures and musical elements make up the music experience in a therapy session. My role was to create a therapeutic music making experience through the clinical musicianship skills I have developed. Clinical listening and analysing the music, as it is created in the sessions, is an essential part of sharing the music making experience on the same level as the child; as is holding any movement or gesture, made by the child or me, as core to the 'music' being made and framing the whole experience as music.

Through the process of transcribing and analyzing I have been able to examine the way the child responded and interacted with me in the music therapy setting. The child's non-verbal

skills were promoted and motivated in this environment and the meaningful moments highlight this. I have found music (specifically in meaningful moments) to help facilitate child development due to the ability to share a musical experience, furthermore create a relationship, which appeared to encourage and motivate the child to communicate and express themselves. Where verbal communication may present a barrier for a child with delayed development or communication skills, there is potential for non-verbal communication through music making. Learning and developing comes from the ability to attend and engage; if a child is motivated to interact and communicate the more likely they are to attend and engage with their surroundings and the people involved in their life and hence learn and develop.

In the meaningful moments it appeared that the child was engaged when they responded to moments of anticipation or expectation. Attention was evident in the duration and accuracy of the responses of the child to the music I created with them. I witnessed learning and growth as they repeated musical phrases and actions in order to provoke my response, as well as my intuition playing a part in identifying that moment as one with a particular ‘newness’; Development.

## **6.5. Strengths and Limitations**

The dual role as music therapy student and researcher proved to be the greatest strength and limitation of this study. Being the student music therapist in this study has given me greater insight into my practice. The time spent transcribing and analysing the meaningful moments has revealed so much about the musicality of the children I worked with, and the nature of our relationship. As the researcher I was able to ‘step back’ from the clinical connection I had to the music and engage with it from a new perspective. However it was not uncommon to find myself thinking about the work in hindsight or having emotions and memories triggered

whilst watching the video excerpts. Being able to use my experience as a participant alongside the observable data to guide the analysis was helpful. However priority was accorded to clinical records. Furthermore, the dual role and my experience transcribing (as a jazz musician), influenced the way I interpreted and subsequently transcribed the music surrounding the meaningful moments. As discussed in section 6.2, I found myself questioning the placement of phrases, pulse and time signature, key centre, the accuracy of rhythmic and note placement within the bars.

The software I used, Sibelius 6, was useful but was not suited to this project. It is a program suited to standard traditional western musical notation. The nature of the music created in music therapy improvisations does not always suit western notation and having a program which allowed more flexibility in the structure and layout of the music would have been ideal. Including more graphics/pictures may have created a more efficient and legible score. However these transcriptions were never intended to be sight read, in the performance sense. Holck's (2007) ethnographic approach to micro-analysis was appropriate for this study, and future studies involving micro-analysis of music in music therapy. This approach allowed me to investigate my intuition and understand the music in context to the session and my practice, whilst guiding me to question the events in the transcription from a qualitative research perspective. My findings have given me greater insight into my practice and the ways in which I use my skills in improvisation as a 'tool' to promote shared experiences, change and newness in music therapy.

The scope of this study limited the amount of data I could use. I decided to take one meaningful moment from six different children in order to get the maximum range for the scope within the population I worked with. Having two meaningful moments from three children may have given more insight into the difference between each child, but potentially limited the diversity of the cases.

This research is contextual to the children and my practice as a music therapy student. The findings were not intended to be generalised, instead it is hoped that other students and professionals associated with music therapy might find the study thought provoking and be stimulated to review and question the music making in meaningful moments within their music therapy sessions.

## **6.6. Implications for Research and Training**

This research adds to a growing body of literature and research concerning meaningful moments, and other ‘moment’ phenomena, experienced in music therapy. It reinforces the importance of music in shared experiences and highlights the techniques and elements present in these moments. It might also support the development of musical skills for music therapy students. The delicate, personal and contextual nature of a meaningful moment deems it difficult to research, especially with populations who have limited verbal communication. In music therapy the clients are often vulnerable or have conditions that have affected their cognitive, physical and/or psychological functioning, making it difficult to identify and analyse the client’s thoughts and experiences of meaningful moments with the therapist. Using the transcriptions of the music, however, can highlight moments of musical connection and meaningfulness therefore grounding the experience in the observable data. Further research regarding meaningful moments and their musical contribution to the therapeutic process is suggested. Including a larger sample of meaningful moments would also help to increase the significance of the study and the use of member checking (with able clients) would increase the trustworthiness of such a study.



## **6.7. Conclusion**

Music centred music therapy was used within a child-centred, goals-orientated approach with children who have diverse developmental needs. In this study I was given consent to involve six children who had individual music therapy sessions with my.

Through secondary analysis of clinical data I used an ethnographic descriptive approach to micro analyse the music created in ‘meaningful’ music therapy sessions, which underpinned a particular change in the way the child and I interacted with one another. Analysing detailed transcriptions provided a new perspective and insight into what, how and why this music seemed to ‘stand out’ in the clinical records as being meaningful. This study found meaningful moments to be shared experiences in the co-creation of music promoting a responsive interpersonal relationship between the child and me. The music revealed the techniques; imitation, pause, space, repetition, anacrusis and gestural actions: and musical elements; rhythm, tempo, pitch/melody, harmony and timbre, which were used to facilitate and shape the meaningful moments. It was the educated, therapeutic and intuitive use of these techniques and elements that created structure and change through synchronicity and regularity/flow as well as variation, tension, suspension, expectation and anticipation. This produced a musical framework and the opportunity to foster a responsive interpersonal relationship in music therapy.

The study has been validated through peer checking and reinforces and confirms the relevance and importance of meaningful moments in the music therapy process. The study highlights the need for technical facility, musicality and clinical musicianship in order to facilitate shared experiences in music making. Equally crucial is simplicity and expressivity in the therapist’s music, which requires intuition and empathy.

The limitations and strengths of the dual research/therapist role were discussed along with the available software, method used, the clinical/research experience of the author, and the scope and contextual relevance of the study. Further research is encouraged in this line of music-centred research investigating meaningful moments in music therapy.



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## Appendices

### Appendix 1: Facility Information Sheet



To .....

RE: Request for permission to use clinical records for research.

In the second year of the Masters of Music Therapy degree at the New Zealand school of music, I am required to conduct research relating to my clinical placement. I am writing to you to ask for permission to use the clinical records I have kept, as a part of the procedure at placement facility, for research purposes.

#### Research Project

I have been given permission by the NZSM Postgraduate committee to conduct music centred research which I have titled, “Sound reflexes: Micro-Analysis of Meaningful Moments of Interaction with Children Receiving Music Therapy”. I would like to analyse the music which is made in therapy sessions, specifically the moments where the engagement and interaction between the children and me seems particularly meaningful. I would like to understand what is happening in the music during and surrounding these moments, in order to develop and broaden my music therapy knowledge and practice. With informed consent I plan to analyse my clinical notes and video recordings relating to six individual clients at placement facility (one outreach student and five centre clients). The analyses will involve transcribing music made in the sessions.

#### Ethical Issues



I will refer to and abide by the Code of Ethics for the practice of Music Therapy in New Zealand (New Zealand Society for Music Therapy, 2006) and the Code of ethical conduct for research, teaching and evaluations involving human participants (Massey University, 2010). The Massey University Human Ethics Committee has given ethical approval (MUHEC 11/41) for Master of Music Therapy students to undertake studies of this kind.

I will give the clients concerned the required information to give informed consent. Parents/guardians will be asked for informed consent for the use of the children's data for research purposes. I will also seek to obtain consent or assent from the children as they are deemed able, by parents and other team members, to give it.

Information sheets will be in layman's language. The participants will have the opportunity to withdraw their consent up until the time the transcriptions are complete (before the analysis stage of the research).

Confidentiality will be maintained at all times. I will remove the real names of people and the facility from all reports, presentations and publications related to this research. Anonymity cannot be maintained due to the researcher also being the music therapy student taking the music therapy sessions. I will not use deception at any point.

The findings will be shared with the placement facility and with children's families, in the form of a report summary. Once the New Zealand School of Music has accepted the exegesis, it will be available to view in the University library, and a paper/s based on the study may be offered for publication.

Please contact me or my research supervisor, Dr Daphne Rickson, if you have any questions about my project. Details are below.

This project has been reviewed and approved by the New Zealand School of Music Postgraduate committee. The Chairs of Massey University Human Ethics and Health and Disability Ethics Committees have given generic approval for the music therapy students to conduct studies of this type. The music therapy projects have been judged to be low risk and, consequently, are not separately reviewed by any Human Ethics Committees. The supervisor named below is responsible for the ethical conduct of this research. If you have any concerns about the conduct of this research, please contact the supervisor or, if you wish to raise an issue with someone other than the student or supervisor, please contact Professor John O'Neill, Director, Research Ethics, telephone ....., email:..... .

Dr Daphne Rickson (research supervisor)

Libby Johns (researcher)

## Appendix 2: Facility Consent Form



Sound Reflexes:

Micro-analysis of Meaningful Moments of Interaction in Music Therapy with  
Children

### Placement Facility Consent Form.

I have read the information sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I agree/do not agree to allow Elizabeth Johns to use clinical records, including video data, kept at the placement facility, to reflect on and analyse for research purposes.

I agree to placement facility's data being used in this study under the conditions set out in the Information Sheet.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

(Head of Clinical Services)

Full name printed: \_\_\_\_\_

## Appendix 3: Parent/Caregiver Information Sheet



### Information Sheet for Primary Caregivers

#### Researcher Introduction

I, Elizabeth (Libby) Johns, am a Master of Music Therapy student at the New Zealand School of Music. I am in the second and final year of the degree and therefore must undertake a clinical placement and conduct research relating to my experience as a Student Music Therapist.

#### Project Description

I would like to analyse the music, which is made in therapy, specifically in moments where the engagement and interaction between the children and me seems particularly meaningful and intentional. I would like to understand what is happening in the music during and surrounding these moments, in order to develop and broaden my music therapy knowledge and practice. I am writing to you because I would like to use data relating to your child that was collected as part of my clinical practice at *placement facility*. The data would be analysed along with data from other sources, to answer my research question. The research project requires me to describe in detail the process of events, which occurred in specific moments during the music therapy sessions with your child.

#### Participant Identification and Recruitment

I would like to use data, which relates to your child because it also directly relates to me, and my practice as a student music therapist. I will not use your child's name, or the name of the centre (other than to say it is in New Zealand). However as the *placement facility* is the only one of its kind in New Zealand and I cannot guarantee the centres' anonymity. The research data will be kept on a secure computer during the research period and later stored for five years at the New Zealand school of Music in a locked cabinet after which the data will be destroyed. I will give you a summary report of my project once it has been submitted and approved by the New Zealand School of Music. The research will also be published as a thesis and stored in the University Library. Findings will be presented to a panel, including internal and external examiners. On recommendation the thesis might also be submitted for print in a profession peer reviewed journal.

### Participant's Rights

You are under no obligation to give permission for your child's data to be used for research purposes. If you decide to allow it to be used, you have the right to:

- \*ask any questions about the study at any time until it is completed;
- \*withdraw consent at anytime up until the time I have analysed your child's data;
- \*be given access to a summary of the project findings when it is concluded.

Please contact me or my research supervisor, Dr Daphne Rickson, if you have any questions about my project.

This project has been reviewed and approved by the New Zealand School of Music Postgraduate committee. The Chairs of Massey University Human Ethics and Health and Disability Ethics Committees have given generic approval for the music therapy students to conduct studies of this type. The music therapy projects have been judged to be low risk and, consequently, are not separately reviewed by any Human Ethics Committees. The supervisor named below is responsible for the ethical conduct of this research. If you have any concerns about the conduct of this research, please contact the supervisor or, if you wish to raise an issue with someone other than the student or supervisor, please contact Professor John O'Neill, Director, Research Ethics, telephone ....., email... .

Dr Daphne Rickson (research supervisor)

Elizabeth (Libby) Johns (researcher)

## Appendix 4: Parent/Caregiver Consent Form



Sound Reflexes:

Micro-analysis of Meaningful Moments of Interaction in Music Therapy with Children

### Primary Caregiver/s Consent Form.

I have read the information sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I agree/do not agree to *my child's* clinical notes and other documents, including video data, being used for reflection and analysis for research purposes, under the conditions set out in the Information Sheet.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

(Primary caregiver/s)

Full name/s printed: \_\_\_\_\_

## Appendix 5: Child Consent Form



### Child/Student Information and Consent Form

Hello .....

I would like to write a story about the music we play together in the music room. If it is ok with you I would like to use the videos we have made to help me remember all the fun we have had playing music together.

When I have finished writing my story I will give it to your mum and dad, and you can ask them to tell you about it.

Your Mum and Dad have said it is ok, but that does not mean you have to say it is ok. We will still keep playing music together, even if you say no.

If you would like to be in my story please write your name and date by the thumbs up picture, or get a grownup to help you.



Date: \_\_\_\_\_

## Appendix 6: Pattern Interpretation #1 ('Story-like')

### Patterns Interpretation for Dexter (D):

I ask a question – D. responds verbally then musically – D. plays piano – D. talks to mother – I sing/play – pause – I sing/play – D. plays at the same time – we pause – D. moves – I sing/play – D. plays and speaks melodically (I pause/ leave space)- I sing/play with pulse picking up as D. plays – D. plays at the end of my phrase – I continue, now with pulse/metre – D. plays picking up before I finish the phrase – I sing/play with pulse/metre (lyric variation) – D' continues play (as I sing) then responds with lyrics (matching mine and with pitching the root up 8ve) – I leave space for an extra 2 beats – D. plays – I sing/play in time – I pause - D. finishes my phrase then plays – I continue to sing/play (lyric variation) – D. plays at the same time – I leave slight pause - D. plays then responds/finishes my phrase then plays – we start next phrase together (D. plays as I sing and play in time) – D.

responds/finishes my phrase – we start next phrase together (D. plays as I sing and play in time) another lyric variation used– I leave a large pause – D. synchronises vocal response and play – D. turns around to look at me – I reflect D.'s response (gestural and vocal) – D.'s finishes the lyrical phrase – I reinforce the end of the phrase and begin to play with pause and metre again –

I reintroduce lyrics and melody (with the new lyric variation) – I pause (metre dissolved, pulse only as I sing/play) – D. plays (no vocal response) – I continue to encourage the ending of the phrase... - D. plays – I finish phrase, singing/playing and begin next phrase immediately – D. continues to play with phrase-like sequences – I pause – D. plays new 'phrase' – I finish singing the lyrical phrase and begin the next – D. plays together with me, in time together for 2 beats – I pause before D. pauses – D. moves to find mother –

I sing/play phrase descending to emphasise the end of the interaction – mother motions D. back to piano and joins in music making - D. responds and finishes off the lyrical phrase – mother responds with play – I respond imitating D. – D. moves over to the chimes – I re-introduce lyric variation #2 - D. playing throughout – mother joins in playing – I pause - D. responds/finishes off lyrical phrase – I respond and begin next phrase – mother plays –

D. returns to piano/mother – I pause (large space in melody) – D. responds/finishes off lyrical phrase – mother imitates D. – I sing/play next phrase – D. responds and finishes off lyrical phrase – moves to me and proceeds to take the guitar off of me as I play it – I sing/play to finish the song descending and release the guitar to D. as I finish the lyrical phrase.

## Appendix 7: Pattern Interpretation #2 (Grid format)

Hannah (H).	MTS	
Babble and kicks drum		
Rocking on GD	Sings Q to H.	
“ “ “	“1, 2, 3...” gliss	
	Melodic speech, reiterating Q. (hands gesturing to H.	
Turns GD around and rolls it to MTS	Counting melodically	
Rolling GD with vocal	Supporting H. physically and vocal “weee”	Shared interaction, physical and vocal
Rest	Rest	1 crochet beat rest together.
	Initiates song with a 1 bar pick-up	Tempo and pulse.
Rolls GD away, and taps GD	‘Rolly polly drum’ song	
Rolling back and forth	Claps - reflecting H.’s taps. Still singing.	MTS responding to H.
“ “ “	Reaches forward to GD and taps	
Rolling GD with MTS	Rolling GD with H. and singing.	Hand on hand, shared engagement
Over-roll towards MTS	Supporting H. with balance. Vocalisation “weee”	Shared interaction and repeated ‘event’
Rolling GD	Rolling GD, slight pause in voice	Slight pause, before tempo and pulse return
Rolls drum away	Re-introduces song. Body moves sympathetically to the motion of the GD	
“ “ towards		
GD away and bangs into cupboard, H. vocalises	Singing	H. possibly matching MTS’s words.
GD towards		
	Q. in song lyrics. MTS moves backwards (creating more distance between the pair)	1 bar of 2 beats added.
Rolls GD backwards (not conforming to the Q)		
Rolls GD forwards, H. gives eye contact.	Counting (with rests in between numbers)	Eye contact made. H. smiles.



Rocking on GD	“...3” reaches forward to strike GD skin	
Small jumps, then big one onto GD	Vocalisation keeping pulse ‘alive’ and audible	
Over-rolls towards MTS	“weeee”. MTS supporting H. over-rolling on GD	Repetition of event. Shared interaction.
Rolls backwards		
Roll forwards	Reintroduces song	Tempo increase
Backwards	Cont.	
Forwards	“ “ “	
Backwards	Singing	Tempo slowing down
“ “ “ with eye contact	Singing Q. emphasising pulse through accents Pause	Eye contact. Time becomes free/flexible
Kicks the GD into the wall, ‘bang’. Now side on to MTS	Repeating Q.	Slower still, and key modulating up semi- tone.
Rocking on GD	Pause then repeats Q. through the melody	Tempo picks up slightly
Pause with body facing towards MTS	Pause	Apparent shared attention through silence and gesture/body position
	Verbalises expectation, and nods...	
Rolls the drum away (GD direction facing MTS again)	“oh...” sings the song again from the ‘top’	Tempo up.
No motion	Pause	
Rolls towards	Cont. with song (2 <sup>nd</sup> phrase)	
Rolls away quickly, bangs into wall	No action/vocal	
1 beat rest.		
Rocking on GD	Sings Q	Slower tempo
Rolling GD slowly into wall and gets inside...	“ “ “	
	Silent pause	
Rocks inside the GD	Singing...“are you readyeee?” with upwards gliss at end of phrase/Q.	
Silence	Silence	Three beat silence
	Singing and counting and beating on the floor with	Tempo up MTS leaves 3beats between

Strikes something on drum on beat four (MTS's rest)	hands ("one", beat, beat, rest, "two", beat, beat, rest)	numbers... Increases anticipation and tension. H. responds.
	Gasp.	
Rolls towards	"three..." With long gliss (up perfect 5 <sup>th</sup> )	
Pushes off and emerges out of GD rushing towards MTS	" " " Meets H. in the middle.	Eye contact and laughing. Shared interaction and physical connection. 3-4 seconds
Using hands on the floor, exploring movement and connection with MTS	Re-introduces song with lyric variation, reflecting new interaction.	Free time, yet each phrase has pulse ...
	Pause	
H. puts hands on MTS's shoulder then onto nearby guitar.	Phrase 2  MTS imitates H.'s actions	Shared interaction
Exploring the guitar.	Phrase 3 – emphasises fingers on guitar.	
Returning to the GD, kicking it, followed by babble.		

## Appendix 8: Complete Transcription for Fleur

### FLEUR SESSION 3

gement of

**A**

MTS introduces musical framework/semi structure improvising, but using repetition.

Music therapy student = MTS  
Fleur = F.

Vocal acknowledged F's action

voice

♩=100

(5)

(1) 9.40 9.45 (3) 9.50

Tri - an - gle

wow ar haa ar

tap tap tap

maap maap maap

vocalisations/vocal babble used to encourage F

(F does not use verbal communication yet)

castanet

MTS Percussion

played on triangle that F is holding

MTS offers stick to F.

Percussion used. Reinforces pulse and melodic rhythm.

MTS models how to play the triangle

F Voice

haa

F emulates action/play and uses voice, acknowledging her participation(?).

2

4 bars of explorative improvisation followed by silence/musical pause, MTS leaves space for F to communicate. MTS is expectant?

MTS Voice

6

maap maap maap maap maap maap

(7) 10.00 *ritenuto* *a tempo*

4 second pause (9)

a

Pause creates pressure/expectation/space for F to respond. F appears to be distracted by her reflection, but vocalisation indicates motivation to communicate/engage.

MTS Perc.

4 second pause

F Voice

F turns 90° from MTS to look at his reflection on the varnished wood of the piano stool.

This feels like a meaningful moment. F responds in the silence. F sets the rhythm and pulse for the MTS to engage with. Statement-like phrase. Improvised/new musical phrase

♩=100

a ya ya ya ya - ya

F picking up on MTS's rhythmic pattern briefly. Showing interest in engaging.

Triangle

F shakes triangle and beater in separate hands. No sound produced.

F Perc.

Key centre introduced Bb Maj.  
Up a semi-tone from initial vocalisations  
centred around A Maj.

Waiting for F  
to respond

MTS emulates F.

10  $\text{♩} = 100$  (11) (13)

MTS Voice

ya ya ya ya-ya ah ha ha ah det det det det dee ah daht daht daht daht daah yah

MTS vocal conversation. .... Musical non-verbal communication begins

MTS Perc.

F Voice

eye contact

ha

F appears to acknowledge MTS's participation

(1) (2)

haar..... haa

F Perc.

F responding at the ends of the musical phrases/  
in the gaps with both sound and movement (15 times).....

MTS Voice

14

As in a conversation, turn-taking.

(15)

Vocal breath/gasp

**B**

Waiting for F to respond

Approx. 2sec

(17)

Vocal breath/gasp

daht daht daht daht daah yah da daht daht daht daht daah yaaah daht daht daht daht daah yah oh ah

MTS imitates F.

MTS Perc.

F Voice

(3) F. looks to MTS

(4) F. twists his body side to side

(5)

yah

**B**

F Perc.

MTS Voice

18

daht daht daht daht daah

Approx. 2sec

(19) gasp

Vocal breath/  $\text{♩} = 126$

*faster at once* rit. - - - - -

(21)  $\text{♩} = 116$

short pause

oh ah daht daht daht daht daah yah daht daht daht daht daah oh ah

MTS mirrors F's head movement

MTS imitates F.

MTS Perc.

F Voice

(6)

F twists body and head

rit. - - - - -

F Perc.

MTS Voice

22 **C**

Approx. 4 sec

(23)

(25)

*ritenuto----*

*a tempo*

(27)

yaht daht daht daht daah

ahh ah yaht daht daht daht daah

ah yah ha ha ha haar

MTS Perc.

F Voice

F twists body and head (7)

(8)

I ya

F Perc.

**C**

MTS waiting for a response.....

1 beat dropped in quick response to F's movement

Return to initial tempo with melodic variation.

building momentum/tension.....

...sustained tension as phrase finishes on the 7th.....

MTS imitates F.

.....release using humour and reflecting F's vocalisation and sound choice....



7

Music pauses for 3s,  
MTS and F exchange  
eye contact and  
reciprocate laughing

Time is pushed during the phrases and pulled during the space

MTS Voice

28

MTS imitates F.

melodic laughing

10.47

(29)

....'Sentence closure'

oh ah bapt bapt bapt baa ah

(31)

'New conversation', similar melody,  
variation in vocalisation and time signature.  
(although time signature change also changed  
for ease of notation).

Reflecting/acknowledging the  
shared experience

MTS Perc.

(9)

F laughing with  
head and body twists

a ha ha hay

F Voice

(10)

F using triangle stick  
in right hand/fist and hitting  
fist on the floor.

F Perc.

The musical score consists of four staves. The top staff, labeled 'MTS Voice', contains three musical phrases. The first phrase, starting at measure 32, is 'bapt bapt bapt bapt bum'. The second phrase, starting at measure (33), is 'ah yoo whoo whoo whoo whooo'. The third phrase is 'ah who who who who who'. The middle staff, labeled 'MTS Perc.', shows a rhythmic pattern of four eighth notes followed by a quarter rest, with the annotation 'mimicking F's hitting on the floor'. The bottom staff, labeled 'F Voice', contains two musical phrases. The first phrase, starting at measure (11), is 'oo-ow'. The second phrase, starting at measure (12), is 'aho - ow'. The bottom-most staff, labeled 'F Perc.', shows a rhythmic pattern of two eighth notes followed by a quarter rest. Annotations include 'MTS imitates F.' with arrows pointing from the 'ah yoo whoo' and 'ah who who' phrases to the 'oo-ow' and 'aho - ow' phrases respectively. A box containing the text 'MTS emulating F and including/adjusting the action into the music. Reinforcing the musical interaction/rhythmic nature of F's action' has an arrow pointing to the 'mimicking F's hitting on the floor' annotation.

MTS Voice

32 (33)

bapt bapt bapt bapt bum ah yoo whoo whoo whoo whooo ah who who who who who

MTS Perc.

mimicking F's hitting on the floor

MTS emulating F and including/adjusting the action into the music. Reinforcing the musical interaction/rhythmic nature of F's action

F Voice

(11) (12)

oo-ow aho - ow

F Perc.

Time signature changes back, also new 'phrase', vocalisations revert back to the same when melody/theme first used at bar 13-14

MTS imitates F's vocalisations

drawn out breath  $\text{♩} = 104$

(37) Waiting for F to respond

*slight ritenuto* (39) *a tempo---*

ooo - oo-ow ah daht daht daht daht daah ah hmm hmm hmm hmm hmmm ow oow ah

Creating tension through anticipation. Trying to motivate response or perhaps shared play? At bar 36, F anticipates the 'gap' or 'joins in'?

Continuing with musical framework, dynamic change in timbre (humming)...empathetic to the change in F's participation in bar 36-37?

MTS Voice

MTS Perc.

(13) throat humm, pitch variations.

(14) throat/cough sound, pitch difficult to pin point

F Voice

F Perc.

tempo change set by F.

F. appears to lose co-ordination and stops beating the djembe but keeps motioning as if she is trying to strike it.	F. using beater on the rim of the djembe
---	--

MTS Voice

MTS Perc.

F Voice

F Perc.

46

(47)

(49)

♩=120

(51)

Breath/gasp

oh - ba dut dut dut dut doo

ba dut dut dut ooh

Slowing down followed by a period of silence, MTS allowing the pulsed rhythmic contribution from F to be prominent. F leading the engagement.

MTS slowly turning the drum around to face the bottom end towards F.

Repeated pattern, reinforcing MTS's vocalisations.

MTS plays djembe

Response to the 'hidden' beater. F looks for beater. MTS makes a vocal representation of F's action.

Tension.....

F slides beater inside the drum just before the forth phrase of the sequence. Hiding the beater-finishing play-ending this engagement. An "all done" moment until F shows curiosity as to where the beater has gone...

Beater inside the open/bottom end of the djembe.

Mis-hit/backwards strike inside the drum.

F slides the beater inside the djembe

F looks into the djembe where the beater was placed

Phrase four variation. Feels more conclusive, reflecting F's 'conclusive' action (hiding the beater inside the djembe)

11

MTS Voice

53 (55) (57)

ba dut dut dut doo

gasp as beater falls out of the drum

Release

MTS Perc.

'Drum roll'. Creating anticipation/excitement?  
Attempt to sustain engagement...

rippling four fingers on the djembe

turns djembe vertical  
..... beater falls out

F Voice

F's attention moves to new percussion instruments.

F reaches inside the djembe-----  
↓

but does not retrieve the beater----- looks over to nearby basket to find another instrument

F Perc.

## Appendix 9: Complete Transcription for Peter

### PETER SESSION 5

(Transcription begins at 14.40 in session.  
Video edited, time indicated for reference  
but does not reflect actual time of event as  
it occurred in the live session)

Peter (P) was fixed on isolated play, P was collecting little stickers from the small percussion instruments. The music therapy student (MTS) appears to be trying to interact with P but with little success. MTS begins to sing about the stickers and where P might like to stick them...

♩=130 00.10 P looking towards the piano, moves away from MTS. *Played on piano-----*

P Voice

P Percussion

Cymbal

Snare drum (off)

MTS Voice

MTS uses melody trying to engage P.

shall we stick them on the pi-ano keys?

repetitive riff introduced

MTS standing and leaning over the piano stool.

MTS Piano

00.20

P's head is not visible in the video from this point until 2.20

P Voice

7

Played on gathering drum as P walks towards the snare drum and cymbal.

Eye contact

P actively making music with some pulse and repetition

P Perc.

swipe

P looks to MTS

.....not strickly on the beat. rushed.....

MTS Voice

MTS responding to P's actions using pause to suspend music for a moment before continuing with rhythmic pattern.

MTS pausing for P to get beater and sit down on the drum stool.

MTS Pno.



3

$\text{♩} = 138$

13 00.30 00.35 00.40

P Voice

doo-waap doo-waap doo-waap

P synchronises voice and beating the drum.  
These lyrics have not been used in sessions before.

P changes rhythm P changes rhythm P changes instrument

P Perc.

swipe swipe swipe swipe

MTS Voice

MTS responding to P's change in play

MTS matches P's play, rhythmically on the piano

Adding variation.... and repetition.

MTS pauses in response to P.

Sitting down on piano stool

MTS Pno.

*Ritenuito*  $\text{♩} = 138$

4

Call and response interaction. Appears to be uncertainty as to who will initiate structure and musical form. (perhaps MTS and P hoping the other will initiate)

This is the meaningful moment outlined in the clinical notes, as it was the first time in the sessions when P had initiated and created music lyrically. Until this session P had echoed lyrics and music making.

P responds in the silence. Initiates song with voice and percussion.

20 00.50 ♩=88 1.00

P Voice

doo...waap

play the drum

P Perc.

P responds in the silence.

P sets tempo

loose grip strike

MTS Voice

MTS quickly picks up on P's vocalisation and imitates synchronously.

MTS responds in the silence. Anticipation created, whilst waiting is emphasised by the way MTS uses music.

MTS supports P's lyrics and reinforces his music and actions. The song is created.

doo...waap

MTS responds in the silence.

ooh...

play the drum Phi-lip can play the drum

play the drum play the drum

MTS Pno.

MTS looks at P and turns head to the side to expose ear to P (as to gesture 'I'm listening/waiting')

MTS joins in and promotes/supports P and his improvisation.

26

P Voice

P Perc.

MTS Voice

MTS Pno.

P plays in the pause.

swipe

P stops.

Phi-lip can play the drum

play the drum play the drum

phi-lip can play the drum

play the drum play the drum

MTS smiles and nods head, encouraging P to play.

(swell)

Pause used, MTS gauging P's motivation to play.

Swell here creates movement in the melodic line and emphasises tension in chord progression before resolving to the root (V-I).

Call (P) and echo (MTS)

P responds with the vocalisation used earlier in the improvisation.

P directing the form of the music.

3s pause

1.20 free time

1.30

\* Key change to D Maj. up a tone.

30

P Voice

P Perc.

MTS Voice

MTS Pno.

MTS responding to P by varying melody and bringing the phrase to a close but using III-I cadence so music still feels unfinished.

MTS using the fifth (key=C) and lyric to create anticipation.

MTS imitates P.

MTS imitates/echos, allowing P to lead the improv.

MTS trying to motivate engagement and P's attention.

MTS waits for P again, then reintroduces the song

Phi-lip can pl-ay the dr- um\_ oh doo-waap play the drum play the drum play the drum oh

doo-waap play the drum

gliss.

gliss.

Call (P) and echo (MTS) -----| 7

P responds with voice and on cymbal at the end of MTS's phrase. P directing the form of the music.

5 seconds

36 1.40 1.50

P Voice

do -waap do -waap do -waap play the drum

Beater on cymbal, circular swiping motion, soft sound.

P Perc.

swipe swipe

MTS Voice

MTS varying the melody space MTS imitates with voice and piano. Building suspense...

phi-lip can play the drum do-waap do - waap do -waap oh(breathy)

Cluster/atonal chord before gliss. No chord

MTS Pno.

gliss. gliss. gliss. gliss.

84

Detailed description of the musical score: The score is divided into three systems. The first system (measures 36-40) features P Voice and P Perc. P Voice has four measures of 'do -waap' with glissandos, followed by 'play the drum' (a triplet of eighth notes). P Perc. has three 'swipe' marks on the cymbal. The second system (measures 41-45) features MTS Voice. It starts with 'phi-lip can play the drum' (a triplet), followed by 'do-waap', 'do - waap', 'do -waap', and ends with 'oh(breathy)' (a glissando). The third system (measures 46-49) features MTS Pno. It has four measures of glissandos, with a 'Cluster/atonal chord before gliss.' in measure 47 and 'No chord' in measure 48. A tempo marking of 84 is present at the end of the third system.

8

\* Key change to EMaj

2.00

42

P Voice

P Perc.

MTS Voice

MTS Pno.

The x notes represent the rebound strike on the snare. The result of a loss grip on the beater.

P's play seems less intentional, losing focus.

Swiping action on snare.

Swiping action on snare.

P uses the object nature of the cymbal, rather than the musical nature.

P tapping the bolt in the middle of the cymbal. (timing not accurate)

Sound produced due to P's 'mis-hit'.

Initial strike seems intentional, followed by 2 rebound strikes.

MTS following P's lead. Changing key signature to create energy and newness in the repetitive song.

3

play the drum play the drum phi-lip can play the drum

MTS varies accompaniment and it appears less motivating for P to engage with.

The musical score consists of four staves. The top staff is for P Voice, showing a single note at measure 42. The second staff is for P Perc., showing a series of notes with 'x' marks indicating rebound strikes. The third staff is for MTS Voice, showing a melody with a triplet of eighth notes. The bottom staff is for MTS Pno., showing a piano accompaniment with chords and a bass line. Annotations include a key change to E Major, a time signature of 2.00, and various performance instructions and observations.

47 **rall.** 2.10 P reintroduces lyrics  $\text{♩}=80$  softly spoken

P Voice

play the (drum)

no

P verbalising disapproval

P changes from tapping cymbal bolt repetitively back to snare. Perhaps trying to direct/communicate MTS back into the original improvised melody.

P Perc.

MTS imitating P, but using new harmonic and rhythmic accompaniment.

Softly spoken, MTS nods head, appears to make eye contact with P.

MTS using lyric and pause creates anticipation/expectation

MTS Voice

play the drum oh

MTS's music not following P's direction

**rall.**  $\text{♩}=80$

MTS Pno.

9

P looks directly at MTS and waves beater in the air 2.20

50

P Voice

do - waap

gliss.

P directing the form of the music.

2.30

play the drum

P Perc.

swipe hit-----

MTS Voice

no

do - waap

gliss.

play the drum

MTS Pno.

gliss.

gliss.

MTS imitates P using different pitch

MTS imitates P using different pitch, and longer duration.

MTS imitates, allowing P to lead the improv.

The musical score is divided into four staves. The first staff, 'P Voice', shows a vocal line starting at measure 50 with a glissando from a lower note to a higher one, labeled 'do - waap'. A box notes 'P vocalises and plays on the cymbal, swipe action matches P's vocalisation.' The second staff, 'P Perc.', shows drum actions: 'swipe' (marked with an 'x') and 'hit' (marked with a horizontal line). The third staff, 'MTS Voice', shows a vocal line with 'no' and 'do - waap', with a glissando. A box notes 'MTS imitates P using different pitch'. The fourth staff, 'MTS Pno.', shows piano accompaniment with glissandos in both hands. A box notes 'MTS imitates P using different pitch, and longer duration.' A final box notes 'MTS imitates, allowing P to lead the improv.' and 'P directing the form of the music.' with a time signature '2.30'.



## Appendix 10: Complete Transcription for Dexter

### DEXTER SESSION 18

Music therapy student=MTS  
Dexter= D

4.33 1 2 "yellow" (spoken) 3 played on the kazoo 4.40 4 4.45 D talks to mother 4.50 5 (unable to hear) 6

D Voice

hoo - hoo -

D puts kazoo at bass end of the piano.

D throws the kazoo towards mother, positioned 3m metres behind on left.

Lively, rhythmic play. Sustained chord feels like a statement ending.

D Piano

D turns to sit facing piano and strikes the keys as he lets go/semi-throw of the kazoo.

whole hand

*f* *mp*

D Chimes

"you can have the yellow (kazoo) but which colour for Libby?"

D has removed kazoo from MTS, subsequently used it and thrown it way, then sits high on the piano stool, while MTS sits on the ground with the guitar. D begins to explore the piano.

MTS begins to sing as D sustains a cluster chord on the piano. Turns D's ending into a moment of anticipation.

MTS Voice

oh

MTS Acoustic Guitar

D had started counting in previous sessions and MTS was aware that D liked counting to 5 (rather than 3 or 4). D had sat and counted at the piano in a previous session but he not interacted with the MTS in this way before...

4.55  
8

5.00  
9 10

5.05  
11

D Voice

melodic speech

one two

Complex play, co-ordinating voice and piano play... (imitating MTS from a previous occasion?)

D re-adjusts sitting arrangement

D adjusts piano stool after MTS has introduced counting. D places it at the treble end and close into the piano (as in previous sessions). Moving the piano stool suggests that D is motivated to play and acknowledges MTS's suggestion/play.

(LH)

MTS Voice

MTS sings, naming the instrument D is playing...then introduces counting, 1-4. MTS knows D likes to count to 5, and D has sat and piano and counted previously in other sessions.

\*MTS leaves space for D (x16).

Adjusts tempo, more space, less texture. Reinforcing the tempo through simplicity.

♩=88

(1)\*

slight rit.

(2)\*

♩=72

pian-o pi-an-o pi-an-o

one two three four pi-an-o

pi-an-o pi - an-o pi-an-o

Music is lively reflecting D's play seconds before.

MTS plays again once D has initiated play.

MTS Gtr.

C

One chord used..... simplicity.

5.10

Structure and containment provided by pulse/continuity in MTS's music.... through to bar 24. D's responses appear reflective, reflexive, expressive (dynamic, rhythmic and pitch variation) and regular.

This feels meaningful as D responds constructively and musically to MTS (focus area and goal for D).

D matches MTS's pitch and responds in the musical 'gap'/space (x9)

12 13 14 15 16 17

5.15 5.20 (1) 5.23

D Voice

four - five

four! five

*mf* *mp*

D's music ascends as does MTS's

Refer to boxed text over page (bar 17).

D Pno.

MTS leaves space for D.

(3)\*

MTS picks up counting theme and includes D's addition '5'. Improvised song.

Tempo and pulse set. Helping predicability and inviting D to join in.

♩=72

Repetition...and framed into a song.

Intentionally unfinished phrase to elicit a response.

MTS leaves space for D. Instead of a pause, a bar of 2/4 is added.

(4)\*

MTS Voice

one two three four five one two three four five one two three four

G

MTS Gtr.

Guitar strum, without vocals helps to give song momentum in the 'gap'.

5.25 5.30 5.35

17 17 (2) 18 (3) 19 (4) 20 (5)

D Voice

five five five *mp* four *mf*

D Pno.

whole hand cluster

D Perc.

MTS Voice

(5)\* (6)\* (7)\*

one two three four one two three four one two three four one two three

MTS Gtr.

C G

Music played by D and MTS follows call and response interaction but overlaps, making the music more connected, perhaps also showing D's interest in his own musical play. Vocalisations show D's basic turn-taking/communication skills.

D and MTS start playing together

This also feels like a meaningful moment, as D acknowledges MTS visually and audibly

5

D Voice

21 21 22 23 24 25 25.50

four four five

D turns head to look at MTS (sitting on floor off to right behind D).

D engages in a period of create/explorative play. 5 different approaches/techniques used (see below).

two hands almost synchronised, both hands

D Pno.

① mp ②

"Techniques" (refer to text box above) appear to respond to MTS phrasing/play/space however MTS's music is spacious and without regular pulse, potentially contributing to D's approach to the piano. Text refers to numbered horizontal brackets.

D Perc.

(8)\* (9)\*

MTS Voice

four five oh one two three four

♩=72 C

MTS Gtr.

D turns around to find mother and goes to hug her, mother meets D half way and encourages D to return to the piano.

5.55 6.00 6.05 6.10

26 26 27 28 29 30 31

D Voice

Approximate pitches, 1-3 notes represented by each note head.

Both hands using individual fingers to play (difficult to identify LH & RH)

babble/moaning

Vocalisations appear to express frustration, D's body language and actions suggest a loss of interest or focus. Less pulse/regular beat in the music, may have added to D's present state.

D Pno.

#4 rhythmic variation in MTS's space

D whole hand on piano and turns to see mother

D Perc.

Bring the song to a finishing point as D appears to be finished with this musical interaction/song. 'Newness'/change in melody may have given D motivation to respond.

MTS Voice

*mp* *mf* =69 (10)\*

fi - ve one two three four G

fi - ve one two three four C

one two three four - G

slowing slightly (12)\*

MTS Gtr.

7

Mother's encouragement and support re-focuses D and motivates a response to the unfinished phrase in MTS's lyrics.

D returns to piano, where mother is kneeling, and hops onto mother's back looking at MTS

(6) 32 32 6.15 33 6.20 34 (7) 35 36 6.25 37 6.30 38 (mother) (8)

D Voice

five

not audible, but visible.

five (spoken)

mother plays this

five (five)

mother plays this

D Pno.

mother plays this

mother plays this

Instrument becomes an object?

D Perc.

D moves over to the chimes...

D leans on the piano with elbow and forearm to get in a higher position on mother's back.

MTS Voice

five

oh

one two three four yes

one two three four

oh one two three four

MTS Gtr.

C

G

C

MTS responds musically to D's motion towards the chimes. Expectant/anticipating D's action

Tempo slower still... MTS reintroduces melody and lyrics

$\text{♩} = 63$

(13)\*

(14)\*

D walks over to MTS (sitting on floor with guitar) and begins to try to take the guitar off MTS. MTS challenges this and continues to hold the guitar to finish/round off the song. Counting 1-5 one last time and releasing the guitar for D to play.

D takes guitar and begins to explore its sounds, then takes it to mother who holds the guitar while D goes to pick up the ukulele to play, with mother on guitar. D is near the collection of gathering drums and djembes. MTS brings back in 'the counting song' as D and mother play. At 7.50 MTS plays the djembe and sings/counts, D responds by 'filling in the gaps' with "5". At 8.30 MTS sings "5, 4, 3, 2..." on the repeat D replies "1" followed quickly by "No, its 5!" At 8.50 D goes to MTS and takes the djembe MTS is playing away from her.

(9) 6.35 40 41 42 6.40 6.45 (mother speaking)

D Voice

39 39 40 41 42 43 6.50 44

*p* *mp*

five mine mine mine mine mine mine mine my turn (five)

D responds to MTS, then proceeds to take the guitar off MTS whilst it is still being used.

mother plays this

D Pno.

D Perc.

Slowing to finish the song, using tempo to express a calm and controlled emotional state. Opposing D's state.

(15)\* becoming slower (16)\*

MTS Voice

one two three four one two three four five there you go.

MTS Gtr.

C G

♩=69



## Appendix 11: Complete Transcription for Hannah

### HANNAH SESSION 13

Music therapy student = MTS  
Hannah = H.

17.25  
Light swing feel played by MTS.  
(1) vocal 'babble'

H Voice

H in solo play?  
Babble and drum rolling appears isolating and 'non-interactive'

17.30  
(3)

The 'Rolly Polly Drum' song started at 14.30 as H was making vocalisations, playing the kazoo and rolling the GD on its side back and forth (leaning on it and rocking). This song had been created in a previous session and used in several sessions prior to this one. H appeared engaged temperamentally, giving lots of eye contact and inclusive/responsive participation, then appearing distracted by various objects in the room.

kick to roll GD  
GD bangs into furniture/wall  
H rocking the GD back and forth leaning on it  
H turns the GD in the direction of MTS

(H = Line 1 & up)  
Large Gathering Drum (GD) on its side  
(MTS = Line 2 & down)

MTS Voice

Hands waving in the air  
Hands reaching out  
Spoken with intensity

can you roll the drum to me? one... two... oh... are you go-ing to roll it?

The transcription consists of three staves. The top staff is for H Voice, showing a vocal 'babble' at 17.25. The middle staff is for the Large Gathering Drum (GD), showing a 'kick to roll GD' and 'GD bangs into furniture/wall' at 17.25, followed by 'H rocking the GD back and forth leaning on it' and 'H turns the GD in the direction of MTS' at 17.30. The bottom staff is for MTS Voice, showing 'can you roll the drum to me?' and 'one... two... oh...' at 17.25, and 'are you go-ing to roll it?' at 17.30. Annotations include 'H in solo play? Babble and drum rolling appears isolating and 'non-interactive'' and 'This appears to be a self-stimulating behaviour'.

2

H interactive and responding musically to MTS.

Shared vocalisation

Pulse and tempo consistent through this passage of music. H seems engaged and body language and attention appears focused on the music and MTS.

17.40

squeal

17.45

(9)

17.50

H Voice

(5)

wee

eeee

ee

Rolling GD with direction towards MTS (downwards arrow)

(Upwards arrow above note head represents rolling away)

Tapping on the shell of the GD

MTS responds to H's taps on the GD. First via clapping, then slapping/tapping the GD

MTS hands on top of H's hands on GD shell, sharing back and forth rocking motion

Perc. H

Perc. MTS

(Hand slap on the shell of the GD)

MTS clap

MTS reaches forward 1m to slap the GD.

2sec gliss

refer below

MTS Voice

one two three - wee - ee

yes yes yes yes

roll-y poll-y drum

roll-y poll-y drum

roll the drum a-round a

Lyrics acknowledge H's participation.

symbol represents H rolling onto the top of the GD, MTS supports GD as H rolls off balance towards her.

The musical score is divided into four staves. The top staff is for H Voice, showing vocalizations 'wee', 'eeee', and 'ee' with a tempo of 92. The second staff is for Perc. H and Perc. MTS, showing drumming patterns with annotations for 'Rolling GD with direction towards MTS', 'Tapping on the shell of the GD', 'MTS responds to H's taps on the GD', and 'MTS hands on top of H's hands on GD shell'. The third staff is for MTS Voice, showing lyrics and a '2sec gliss' annotation. The bottom staff contains a legend for the 'symbol' representing H rolling onto the top of the GD.

MTS sympathetic to the rolling of the GD tempo set by H's movements. Time/rhythm flexible but with pulse.

(11) 17.55 18.00 (13) (15) 18.05 18.10

H Voice

ly pol

(Hard to hear exact vocalisations; perhaps matching the MTS's lyrics?)

H imitates/approximates MTS's lyrics.

H. acknowledges MTS through eye contact and rolling the GD towards MTS.

Perc. H  
Perc. MTS

GD bangs into cupboard/wall

H rolls the drum away, opposing MTS

H makes eye contact with MTS and smiles (as H rolls on top of the GD)

MTS Voice

one two weeee

roll-y poll-y drum

roll-y poll-y drum

can you\_\_\_\_\_

roll the drum to me?

one two

MTS body moving in the same direction as H rolls the drum

MTS shuffling backwards

MTS creating larger distance between self and H. Encouraging/challenging bigger movements.

Creating anticipation/tension...

3

Vocalisations from MTS reflect change in H's participation as H starts jumping.

17 (17) 18.15 (19) 18.20 (21) 18.25

H Voice

Perc. H  
Perc. MTS

MTS reaching forward to connect with GD

H makes several small jumps then launches himself over the GD.

Third event of this nature. MTS has supported physically and vocally each time. Repetition.

MTS Voice

three you hoo hoo hoo wee... roll-y poll-y drum roll-y poll-y drum can you

Distance appears to be too large as MTS has to come back towards H in order to connect with the GD and H.

becoming slower

Song reintroduced and tempo increased in response to H's energetic movements.

H seems to disengage as she rolls the GD further away from MTS, however H then makes eye contact with MTS showing interest in the shared experience they are creating together.

Key Change to C# maj.

5

23 (23) eye contact 18.30 (25) 18.35 (27) 18.40

H Voice

Perc. H  
Perc. MTS

turns drum and rolls it to the far/opposite corner of the room, 3-4m away (approx.) from MTS

H kicks the GD into the wall (1m away) and follows the GD to continue rolling it back and forth.

H's body language and apparent eye contact seem to motivate MTS to further encourage H to engage with the song and roll the drum through the lyrics.

H's body facing towards MTS head not visible

(GD now side-on, therefore 'note head' signals change of direction)

MTS Voice

roll the drum to me? ooh can he roll the drum to me? can you roll the drum to me? I think he can...

slower still ♩ = 76 [♩=80]

MTS pauses, gives H opportunity to initiate interaction.

MTS verbalises expectation.

2-3s break

MTS nods her head reassuringly to H (he appears to be looking at MTS).

Accents used in melody to emphasise pulse and movement, attempting to keep the tempo slow whilst motivating engagement and active participation.

6

Time/metre are best described as 'free' from 18.25-19.05 as the phrases fluctuate in tempo, sympathetic to H.'s movements with the GD. However each phrase has it's own pulse, alternating (100 - 76 - 80 - 88 - 60 - 86)

18.45 18.50 18.55

29 (29) (31)

H Voice

Perc. H  
Perc. MTS

MTS Voice

oh— roll - y poll - y drum roll - y poll - y drum can you

♩=88 ♩=60

fast.....

H appears to be disengaging from MTS, as H goes to 'hide' inside the drum.

Melodic question, using speech like articulation (pitching up at the end of phrase).

33 (33) 19.00 (35) 19.05 (37) 19.10

H Voice

Perc. H  
Perc. MTS

MTS Voice

H rolls the GD into the wall and then gets into/hides the open end of the GD (head in, legs out).

H rocks inside the GD.

H. responding...

H. strikes something which I can't see.

roll the drum to me?

are you rea - dy ee - ee?

one... two... (gasp)

Creating anticipation/tension...

♩=86

Shared connection physically, and highlighting H's attention to the interaction whilst appearing actively disengaged. This is a short period of focused attention between the pair. This moment of shared attention feels meaningful.

19.15  
refer to text below  
H laughs. Eye contact. (41)

19.20  
H and MTS tickle each others hands, close/physical interactive play.

19.25  
H puts hand on MTS's shoulder, then turns away to put her fingers up and down the guitar, which is on a stand off to the side. (43)

H Voice

Perc. H  
Perc. MTS

MTS Voice

three - ee - ee

ooh

creep-y sneek-y fing-ers

creep-y sneek-y fing-ers

refer to text below

Melody reintroduced with different lyrics emphasising physical play between H and MTS.

H and MTS are at their most intimate during this moment, which is sustained for 5 seconds.

H and MTS rush to meet each other in the middle of the room, having come from opposite sides of the room. They are face to face and positioned on their hands and knees (close enough to hug one another), and both laughing. They retreat to sit back on their knees and look at one another for 3-4 seconds in silence. MTS reaches out towards H with her hands on the ground and H reciprocates this action, connecting hands and fingers with MTS as she begins to sing again.



44 19.30

H Voice

(45) (47)

H turns back to the GD (still on its side), leaning on it with torso, arms extended over and scratches the shell of the GD in a similar manner. H kicks/pushes the GD with her shin/top of foot in to the wall (close by) and vocalises/babbles.

Imitation and shared play.

Perc. H  
Perc. MTS

MTS Voice

creep - y sneek - y fing - ers ov - er the gui - tar

MTS reaches over to guitar to copy H's action, scratching the metal of the guitar string.

Lyrics emphasising physical play and actions of H and MTS.

This transcription/period of musical interaction finishes similar to the way it began, with vocal babble and H kicking the GD away from her body.

## Appendix 12: Complete Transcription for Max

Max (M) and the music therapy student (MTS) were playing and singing a 'copy me' song using actions and instruments to emphasise change in play. The melody of the song transferred into this next phase of play where MTS is still attempting to engage M in imitative/reciprocal play without the use of lyrics, verbal communication, or the structure of the song.

### MAX SESSION 10

23.01(min)  
♩=84

(1) M. looks up at MTS. (3) 23.10

M Voice

M Xylophone

M Bongos

MTS Voice

MTS Xylophone

MTS Bongos

M waving both beaters in the air.

Using sustained note creates anticipation.

M striking the floor with both beaters fairly simultaneously

MTS imitates M and uses lyrics to emphasise this.

just right hand.

(stick on rim miss-hits/slight stumble)

oh

co-py M. - co-py M. - da da da da dah be the same be the same

striking the floor with both beaters

using one beater

MTS adjusts bongo drums

*mf*

*f*

The musical score is written for six staves in 4/4 time. The tempo is marked as ♩=84. The score is divided into measures by vertical bar lines. Annotations include: 'M looks up at MTS.' above the first measure of the M Voice staff; 'M waving both beaters in the air.' above the first measure of the M Xylophone staff; 'Using sustained note creates anticipation.' below the first measure of the MTS Voice staff; 'M striking the floor with both beaters fairly simultaneously' below the first measure of the MTS Bongos staff; 'MTS imitates M and uses lyrics to emphasise this.' below the first measure of the MTS Xylophone staff; 'just right hand.' above the second measure of the M Bongos staff; '(stick on rim miss-hits/slight stumble)' above the third measure of the M Bongos staff; 'oh' below the first measure of the MTS Voice staff; 'co-py M. - co-py M. - da da da da dah be the same be the same' below the second measure of the MTS Voice staff; 'striking the floor with both beaters' below the first measure of the MTS Bongos staff; 'using one beater' above the second measure of the MTS Bongos staff; and 'MTS adjusts bongo drums' above the third measure of the MTS Bongos staff. Dynamics include *mf* and *f*.

2

23.20 23.25 23.30 23.35

(5) (7) (9) (11)

M Voice

M Xyl.

M Bongos

MTS Voice

MTS Xyl.

MTS Bongos

M stops first, MTS follows.

M imitates MTS with trill action on the Bongo

(2s)

Becoming slower

(3s)

M stops first, MTS follows.

be the same as M. -

oh -

pp

M lifts both beaters into the air

Leaving space to create framework for call and response.

MTS follows M and lifts both beaters into the air.

MTS finishes after M.

23.40 23.45 23.50 3

12 (13) (15)

M Voice

Call and response, MTS follows. M leaves space for MTS to respond.

M Xyl.

M Bongos

MTS Voice

Call and response: MTS echos accurately rhythmically and approximately with pitch matching.

MTS Xyl.

MTS Bongos

Detailed description: The musical score is arranged in six staves. The first three staves (M Voice, M Xyl., M Bongos) represent the first participant (M), and the next three staves (MTS Voice, MTS Xyl., MTS Bongos) represent the second participant (MTS). The M Voice staff has measure numbers 12, (13), and (15) above it. A dashed line is placed between the M Xyl. and M Bongos staves and the MTS Voice staff. Annotations in boxes provide context: 'Call and response, MTS follows. M leaves space for MTS to respond.' is placed between the M Voice and M Xyl. staves, and 'Call and response: MTS echos accurately rhythmically and approximately with pitch matching.' is placed between the MTS Voice and MTS Xyl. staves. The notation includes various rhythmic values (quarter, eighth, sixteenth notes) and rests. The Bongos staves for both participants show a simple two-stroke pattern.

4

M begins to take the D key out, appears to stumble slightly, which pops the B key out (mid-range).

Clinical notes describe this moment as meaningful, as M uses melodic speech to reinforce his actions. M borrows the melody from the 'copy me' song but creates original lyrics. M is reported to have used vocal improvisation more in this session than in previous sessions, and this was the first time he initiated his own song.

M. creates a song around his actions.

Kneeling and bending over to be at eye level, 'looking' at the xylophone.

M Voice

17 (17) 23.55 (19) (21)

B and D out. Ta-ke B an-d D out - and - put them on -(sigh) hum - look at

*mp*

M Xyl.

M Bongos

MTS Voice

Finishes phrase an octave lower than M.

MTS Xyl.

MTS Bongos

MTS takes B and D keys out taps them together 3 times and places them to the side.

MTS follows M's lead, using rhythm to emphasise the action of removing the xylophone keys.

(Dashed barlines added to show some rhythmic structure and synchronised pulse. Tempo approx. ♩=76)

23 (23) Eye contact

M Voice  
my - (haay)

M Xyl.  
B key 'hole'

M Bongos

MTS Voice  
MTS imitates humming.  
(hum hum hum)

MTS Xyl.  
MTS imitates xylophone glissandos.

MTS Bongos  
MTS imitates xylophone play, and attempts to join M in collaborative play.

M looks over to see what MTS is doing.

Playing together tempo increasing. (MTS matching M's tempo)

MTS plays in the 'B' key hole, just as M has done. M looks over at what MTS is doing subsequently.

B key 'hole'

The musical score is arranged in five systems, each with two staves. The first system shows M's Voice and M's Xyl. The second system shows M's Bongos and MTS's Voice. The third system shows MTS's Xyl. and MTS's Bongos. Annotations include: 'Eye contact' at measure 23; 'my - (haay)' for M's voice; 'B key 'hole'' for M's xylophone; 'MTS imitates humming. (hum hum hum)' for MTS's voice; 'MTS imitates xylophone glissandos.' for MTS's xylophone; 'MTS imitates xylophone play, and attempts to join M in collaborative play.' for MTS's bongos; 'M looks over to see what MTS is doing.' with an arrow pointing to M's xylophone; 'Playing together tempo increasing. (MTS matching M's tempo)' with an arrow pointing to the middle of the score; and 'MTS plays in the 'B' key hole, just as M has done. M looks over at what MTS is doing subsequently.' with an arrow pointing to MTS's xylophone. Dashed barlines are placed at measures 23, 25, and 27.

27 (27) (29)

M Voice

M Xyl.

M Bongos

MTS Voice

MTS Xyl.

MTS Bongos

Suddenly slower

M reaches for the xylophone keys placed to the side.

M places the removed keys back in the appropriate space.

Playing together, tempo decreasing. (MTS matching M's tempo)

MTS picks up on M's motion to put the xylophone keys back on and creates lyrics to contain the action.

♩=60 (tempo fluctuates)

MTS places the removed keys back in the appropriate space.

Suddenly slower

MTS now leads the interaction.

oh B and D here they go back on B for? but-ter-fly and

24.45

7

1. M searches to find the 'E' key,
2. M locates and removes the 'E' key then looks at MTS.

Eye contact (31) 1. 2. Eye contact sustained smiles (33) M imitates

M Voice

dog - Eg - g E for

M responds quickly and accurately in the space.

M Xyl.

M Bongos

(holding E key in hand and striking the floor)

MTS nods head, acknowledging M's response and eye contact.

MTS responds and develops the song, using call and response techniques.

4 sec pause

MTS repeats Q in response to M's eye contact and apparent motivation.

MTS incorporates M's idea.

MTS Voice

D for? oh what a-bout E for? E for? egg E for egg

MTS Xyl.

MTS Bongos

Holding the E key in hand and striking it with the beater



24.55  
(35)

M and MTS proceed to explore the other letter names on the xylophone keys. Imitating one another through call and response/echo, the interaction continues in this way for the remaining 6 mins of the session. Both using the song to communicate verbally through improvised lyrics or melodic speech.

eye contact

M Voice

egg

M imitates MTS's action.

M striking the E key with the beater.

M Xyl.

M Bongos

M responds, adding to the Q rather than answering it straight away.

M responds after a slight delay.

MTS Voice

E for egg

and what a - bout -

MTS calls...

MTS calls...

MTS nods and then looks at M.

F F for?

MTS Xyl.

MTS Bongos

## Appendix 13: Complete Transcription for Kurt

**KURT SESSION 13**

Music therapy student = MTS  
 Kurt = K

22.56  
K exploring the ocean drum (OD)

(1) *mf* (3)

*The note heads represent the start and finish of the note; the slur describing the continuation of sound; the accent describes the instance when all beads inside the drum are at one end of the drum which produces a sharp/crisp sound.*

23.03

K lifts OD above his head smoothly and watches the beads inside roll over the clear drum skin.

23.08 (5)

Continues to move it back and forth (no pulse but percussively). Eyes fixed on drum.

K Ocean Drum

K Piano

MTS sits down at piano.

*mp*

MTS puts kazoo on the piano music stand.

New theme

$\text{♩} = 96$

light triplet/swing feel

MTS Piano

23.13

K Perc. 6 *f* (7) (9) (11)

K puts the OD down on the piano stool in front of him. (MTS sitting on the other 1/2 of the piano stool)

23.19 K gives MTS the kazoo from music stand.

K picks the OD up above head.

K inviting MTS to play new instrument. (K has a tendency to want to control the music being made, this invitation to play the kazoo may also be more directional but within the music appears more invitational)...

K resumes previous play with the OD.

straight feel, rhythm slightly scattered, free playing notation as accurate as necessary.....

MTS Pno. *mf* becoming slightly faster

MTS reflects the change in K's play by sustaining a chord on the piano.

(23.20) MTS takes the kazoo which K offers her.

The musical score consists of two staves. The top staff, labeled 'K Perc.', shows a sequence of notes with dynamic markings *f* and *mf*. The bottom staff, labeled 'MTS Pno.', shows a sequence of notes with dynamic markings *mf* and *becoming slightly faster*. Annotations include: 'K puts the OD down on the piano stool in front of him. (MTS sitting on the other 1/2 of the piano stool)' with a diagram of a piano stool; 'K inviting MTS to play new instrument. (K has a tendency to want to control the music being made, this invitation to play the kazoo may also be more directional but within the music appears more invitational)...'; 'K resumes previous play with the OD.'; 'straight feel, rhythm slightly scattered, free playing notation as accurate as necessary.....'; 'MTS reflects the change in K's play by sustaining a chord on the piano.'; and '(23.20) MTS takes the kazoo which K offers her.'

23.25 23.30 23.35

12 (13) (15)

K Perc.

K Pno.

MTS Pno.

*K joins MTS on the piano briefly, exploring the treble-mid range of the piano.*

*MTS resumes play on the piano and uses kazoo briefly, acknowledging K's offer? Variation on theme just played.*

*becoming slightly faster*

*New theme*

*MTS imitates K's descending piano play.*

*MTS begins to establish pulse and metre.*

*8<sup>va</sup>*

*pp*  
hum on kazoo

*mp* *mf*

*mf*

*♩=104*

23.42  
♩=100  
(17)

K Perc.

K reaches towards piano lid 4s

K ascends up the treble range opposing MTS in range and rhythm.

K changes instrument further differentiating between self and MTS.

K turns away from the piano to pick up ukulele which makes sound as the ukulele is knocked on the piano stool.

MTS Pno.

MTS stops suddenly at K's action

New theme

MTS resumes pulse and metre with more simplicity and repetition.

4s

*mp*  
Ped.

MTS reflects, leading to a period of silence

The musical score is divided into three staves. The top staff, labeled 'K Perc.', shows a timeline with measures 16, 17, 19, 21, and 23. A tempo marking of 100 bpm is indicated at measure 17. The middle staff, labeled 'K Pno.', shows a melodic line starting at measure 17 with a 4-second rest, then ascending in the treble range. The bottom staff, labeled 'MTS Pno.', shows a melodic line that stops at measure 17, then resumes with a new theme. Annotations describe the actions of the characters and the musical changes, such as 'K reaches towards piano lid', 'K ascends up the treble range', 'K changes instrument', 'K turns away from the piano to pick up ukulele', 'MTS stops suddenly at K's action', 'New theme', 'MTS resumes pulse and metre with more simplicity and repetition.', and 'MTS reflects, leading to a period of silence'.

5

K trying to place the ukulele back on the guitar stand...

K drops the ukulele (1) and picks up the ocean drum (2) again.

24.08

K resumes initial play, engaging with the OD. MTS's music becomes more active perhaps motivating K to join in.

24 (25) (27) (1) (2) (29) (31)

K Perc.

K Pno.

MTS Pno.

MTS emphasising the music by increasing the dynamic and adding variation to the melody in the bass line; extending the arpeggio, using double time.

becoming slightly faster...

Theme variation.

Reference to previous theme developing into...

MTS varies rhythmic pattern. Appears to be encouraged/promoted by K's playing on the OD.

*mf*

The musical score consists of three staves. The top staff, labeled 'K Perc.', shows a sequence of rhythmic events marked with 'x' and numbers in parentheses: (25), (27), (1), (2), (29), and (31). Above the staff, a time stamp '24.08' is present. The middle staff, labeled 'K Pno.', is empty. The bottom staff, labeled 'MTS Pno.', shows a bass line starting with a dynamic marking '*mf*'. Annotations include: 'K trying to place the ukulele back on the guitar stand...' above the first measure; 'K drops the ukulele (1) and picks up the ocean drum (2) again.' above measures (1) and (2); 'K resumes initial play, engaging with the OD. MTS's music becomes more active perhaps motivating K to join in.' in a box above measures (29) and (31); 'MTS emphasising the music by increasing the dynamic and adding variation to the melody in the bass line; extending the arpeggio, using double time.' in a box above measures 25-27; 'becoming slightly faster...' below measures 25-27; 'Theme variation.' in a box above measure 29; 'Reference to previous theme developing into...' in a box above measure 31; and 'MTS varies rhythmic pattern. Appears to be encouraged/promoted by K's playing on the OD.' in a box with an arrow pointing to measure 31.

K begins to roll the OD anti-clockwise on the piano stool, making a fairly constant sound.....

**poco accel.** - - - - -

32  $\text{♩} = 132$  (33) (35) 24.20 (37)

K Perc.

K Pno.

MTS Pno.

ghost notes

...New theme

Tempo increase, building energy in the music with the syncopated rhythmic pattern.

MTS and K change play together without visual cues

MTS continues to build energy and anticipation as syncopated rhythmic phrase is repeated and begins to ascend up the treble register.

MTS looking at piano looking at K.

The musical score consists of three staves. The top staff, labeled 'K Perc.', shows a sequence of notes with a tempo marking of  $\text{♩} = 132$  and a 'poco accel.' instruction. The middle staff, labeled 'K Pno.', is empty. The bottom staff, labeled 'MTS Pno.', shows a complex rhythmic pattern with 'ghost notes' in the bass clef and an ascending melodic line in the treble clef. Annotations include 'K begins to roll the OD anti-clockwise on the piano stool, making a fairly constant sound.....', 'K varies play with the OD', '...New theme', 'Tempo increase, building energy in the music with the syncopated rhythmic pattern.', 'MTS and K change play together without visual cues', 'MTS continues to build energy and anticipation as syncopated rhythmic phrase is repeated and begins to ascend up the treble register.', and 'MTS looking at piano looking at K.'.

Picks the OD up and emphasises the sound. Begins to turn the OD clockwise continuing with the circular rolling motion (roll over, then shift the drum backwards so to keep it on the piano stool)...

7

K appears focused on his play, fairly consistent as he continues

38 (39) (41)  $\text{♩} = 140$  24.30

K Perc.

roll----- shift backwards etc.

K Pno.

Tempo increase in MTS's piano, K seems to be increasing the speed of the 'OD rolling pattern'

Theme develops

$\text{♩} = 140$  Building momentum. Rhythmic change

MTS Pno.

The musical score is divided into three systems. The first system shows K Perc. with a series of notes and rests, and K Pno. with a series of notes and rests. The second system shows MTS Pno. with a series of notes and rests. The third system shows MTS Pno. with a series of notes and rests. The tempo is marked as 140 BPM, and the time signature is 24.30. The score includes annotations such as 'roll----- shift backwards etc.', 'Tempo increase in MTS's piano, K seems to be increasing the speed of the 'OD rolling pattern'', 'Theme develops', and 'Building momentum. Rhythmic change'.



8

Rhythmically not accurate but representing pattern and routine-like structure for the way K is playing the OD (roll over - pull back/adjust position - roll over etc.).

K and MTS both using their instruments to fill the space creating constant sound. Intensity builds.

42

K Perc.

(43)

(45)

K Pno.

Theme develops

playing continues in a fast flurry of notes rippling down the treble register...

Tempo increases and begins to become free, notes become a 'sheet of sound'

MTS Pno.

The musical score consists of three staves. The top staff, labeled 'K Perc.', shows a rhythmic pattern of eighth notes with accents, grouped into measures labeled (43) and (45). The middle staff, labeled 'K Pno.', is empty. The bottom staff, labeled 'MTS Pno.', shows a fast, rippling melody in the treble register, consisting of many eighth notes, some of which are grouped into triplets. Above the MTS Pno. staff, there are annotations: 'Theme develops' in a box, 'playing continues in a fast flurry of notes rippling down the treble register...', and 'Tempo increases and begins to become free, notes become a 'sheet of sound''.

46

K Perc.

(47)

(49)

24.43

refer to text below\*

25.15

9

♩=200

K picks the OD up over his head back and forth once (eye contact?) then back to the rolling-shift action.....

K Pno.

♩=200 (Time and rhythm fluctuate as K moves the OD in different ways. Tempo slows down suddenly at 25.00)

refer to text below\*

MTS Pno.

\*

\*This interaction continues until 25.20 as MTS descends the treble register of the piano and then begins to ascend the treble register in a similar quadruple rippling sequence. MTS is focussed on K's actions as he continues to lift the OD above his head and then place it back down on the piano stool to roll it around. As pitch increases MTS begins to use more space between each ripple/semi-quaver quartet. MTS at times is able to match the pulse in which K rolls/swishes the drum back and forth on the piano stool/over his head.

50

25.20

(51)

25.24

♩=76

(53)

♩=104 taps rim of OD

eye contact

K lifts his hands up leaving the OD balancing on its side on the piano stool.

K stops play and MTS imitates this. Silence after a period of many notes on the piano and OD sound.

K shakes OD in vertical position, beads at the bottom - therefore no sound is produced. above head....

*mf*

K Perc.

K Pno.

MTS Pno.

MTS lifts hands off the piano in response to K.

Dynamic change in interaction between K and MTS as the silence allows both to acknowledge one another through eye contact. It appears that K acknowledges the MTS's empathetic response to his playing.

♩=76

♩=104

*mf*

ℳ.

MTS responds to K's taps using the tempo K initiates. \*

The musical score is divided into two main sections, each with two staves. The top section features a percussion staff (K Perc.) and a piano staff (K Pno.). The bottom section features a piano staff (MTS Pno.).

**Top Section (K Perc. and K Pno.):**

- K Perc. Staff:**
  - Starts with a downbeat at measure 56, marked *ff*.
  - Tempo changes from  $\text{♩} = 72$  to  $\text{♩} = 88$  at measure 57.
  - Annotation: "Exaggerated movement; OD swung down from above head to piano stool." with a downward arrow.
  - Annotation: "K sets the tempo" in a box at measure 59.
  - Annotation: "K begins to roll the OD on the piano stool again." with *mp* at measure 60.
  - Tempo change to *accel.* at measure 61.
- K Pno. Staff:**
  - Contains rests throughout the section.
  - Annotation: "MTS and K create theme, as K uses the OD to make percussive, constant sound, and MTS creates a 'string' of notes, leaving limited space between notes. Constant sound."

**Bottom Section (MTS Pno.):**

- MTS Pno. Staff:**
  - Tempo changes from  $\text{♩} = 72$  to  $\text{♩} = 88$  at measure 57.
  - Annotation: "New theme. Cyclic piano pattern - cyclic motion with OD." in a box at measure 59.
  - Annotation: "MTS engages with tempo and pulse briefly" in a box at measure 60.
  - Tempo change to *accel.* at measure 61.
  - Annotation: "MTS responds to K's action -bringing OD down- LH descending on piano." in a box at measure 57.
  - Annotation: "Brief patch of silence allows MTS to wait for K to initiate next 'phase'." in a box at measure 60.

12

Lifts OD above head.

25.55 25.57 25.50

61 (61) (63)

K Perc.

*f* *mp* *f*

Dynamic change

K Pno.

Theme develops

Theme develops

Some phrasing and space used in the music

MTS Pno.

The musical score is divided into three staves. The top staff, labeled 'K Perc.', shows a sequence of notes with dynamic markings *f*, *mp*, and *f*. A box labeled 'Dynamic change' with arrows points to the *mp* and *f* markings. The middle staff, labeled 'K Pno.', is empty. The bottom staff, labeled 'MTS Pno.', shows a sequence of notes with triplets and a box labeled 'Theme develops' with arrows pointing to the first and second triplet groups. A third box labeled 'Some phrasing and space used in the music' with an arrow points to the final triplet group. Above the K Perc. staff, the text 'Lifts OD above head.' is written, and the time markers 25.55, 25.57, and 25.50 are placed above the notes. The measure numbers 61 and 63 are also indicated.

65 (65)

K Perc.

63 26.10

K Pno.

MTS Pno.

New theme

63

*mf* *cresc.*

*mp* *ped.*

K opposing MTS's play, using less movement/sound

MTS using ascending scale, trill and crescendo to give music a feeling of being built up. Tension, anticipation and suspense

Ascending scale builds anticipation and suspense.

The musical score is divided into three staves. The top staff, labeled 'K Perc.', shows a series of notes with a tempo marking of 65 (65) and a dynamic marking of 63. The middle staff, labeled 'K Pno.', is mostly empty. The bottom staff, labeled 'MTS Pno.', features a new theme starting at measure 26.10, marked with a tempo of 63. The theme is an ascending scale with a trill and a crescendo, building tension and anticipation. The dynamic marking is *mf* *cresc.*. The score also includes a section marked with an asterisk (\*) and a dynamic marking of *mp* *ped.*, with an annotation stating 'Ascending scale builds anticipation and suspense.'

K striking the OD giving the music intensity. Dynamic and rhythmical play bring music to a climax or peak as the theme develops and then stops.

K strikes the top side skin of the OD. 26.15 K looks up at MTS

Eye contact made, reinforcing shared attention and collaborative play (music therapy focus areas for K).

67 (67)

K Perc.

K Pno.

MTS Pno.

New theme

*ff*

*f*

MTS using both LH and RH, represented this way for easy of reading.

MTS reinforcing the expressive music K is playing. Increasing dynamic and interval range dramatically. Feels like a new level of 'energy', 'intensity' and 'connectedness'.

K continuing with previous action as MTS sustains new theme.

OD up over head (back) (69) (forth)

Theme develops

$\text{♩} = 72$

MTS filling the space with repeated demisemiquavers, K using less sound. MTS takes the foreground while K plays in the background.

The musical score consists of three staves. The top staff, labeled 'K Perc.', shows a rhythmic pattern in measure 68 and a melodic line in measure 69. The middle staff, labeled 'K Pno.', is silent. The bottom staff, labeled 'MTS Pno.', shows a dense texture of repeated demisemiquavers in measure 68 and continues in measure 69. A tempo marking of quarter note = 72 is present. Annotations include 'K continuing with previous action as MTS sustains new theme.', 'OD up over head (back) (69) (forth)', 'Theme develops', and 'MTS filling the space with repeated demisemiquavers, K using less sound. MTS takes the foreground while K plays in the background.'



16

OD down on piano stool 26.25

70

K Perc.

(back.....) (forth)

OD down to piano stool..... 26.30

lifts the OD up high no sound.

K Pno.

MTS Pno.

MTS slows as K brings the OD down to rest on the stool

*Ritenu*

\*

This is the second time K performs this action from bar 73-75... (K's 'pattern' #2)

72

K Perc.

OD back down to rest on its side on top of the piano stool

26.35 (73)

K raises both hands up (OD left to balance)

rim taps

K has back to video camera, but his gestures suggest that he gives eye contact to MTS here

K Pno.

*a tempo*

MTS Pno.

*Red.*

MTS returns to tempo as K raises the OD. MTS responds to K's gesture as no sound is produced

MTS does not imitate K this time, but maintains pulse and accompanying pattern.

The musical score is divided into three staves. The top staff, labeled 'K Perc.', shows a sequence of notes and rests. Above the staff, there are annotations: '72' at the start, 'OD back down to rest on its side on top of the piano stool' above a group of notes, '26.35 (73)' above a rest, 'K raises both hands up (OD left to balance)' above another rest, and 'rim taps' above a final group of notes. The middle staff, labeled 'K Pno.', shows a single note. The bottom staff, labeled 'MTS Pno.', shows a complex rhythmic pattern. Above the MTS Pno. staff, there is an annotation: 'a tempo'. Below the MTS Pno. staff, there is an annotation: 'Red.'. There are also two text boxes: one on the left stating 'MTS returns to tempo as K raises the OD. MTS responds to K's gesture as no sound is produced' and one on the right stating 'MTS does not imitate K this time, but maintains pulse and accompanying pattern.'

Space left...and K responds.

$\text{♩}=80$

shake

(75)

K Perc.

K lifts hands  
OD balancing on  
piano stool

K leans over  
OD and appears  
to look into it.

eye contact

(77)

K lifts the OD up to the  
piano and rests it vertically  
on the keys.

26.50

K Pno.

K acknowledges  
MTS and then joins  
MTS at the piano.

MTS and K are now  
side by side.  
K allows a musical  
connection and an  
increasing physical  
connection.

New theme

$\text{♩}=80$

light swing feel/laid back

MTS Pno.

MTS responds to K's  
rim taps with a sudden  
change in play. Imitating  
K's rhythm.

\* Red.

MTS brings in a new  
accompanying theme,  
and sets a tempo.

78

26.55 (79) K rolls the OD from the treble -bass end of piano.

This is the meaningful moment the clinical notes refer to, emphasised by the music itself as K joins and includes MTS in his musical experience.

27.05 (83)

27.21 see text below\*

19

K Perc.

K Pno.

OD on Piano

*pp*

*mp*

MTS Pno.

MTS pauses at K's action.

MTS using fist to 'ripple' down the piano at random intervals

MTS helps K roll the OD right to the bass end and half way up again. K appears to push MTS hand off OD

see text below\*

MTS responds to K.

\*

The improvisation feels to change dynamically here, as the interaction becomes focused on the motion of the OD and the music this makes (new movement?).

\*K continues to roll the OD over the piano keys exploring the full range of notes, or just sections of the range. MTS observes, does not join in. Then at 27.22, K balances the OD on the keys and begins to play the piano, MTS joins in at this point. K begins to roll the OD again.