Sound Connections Action Research Report

'Enabling Young Children with Autism through Musical Engagement'

A Music Educator's Toolkit

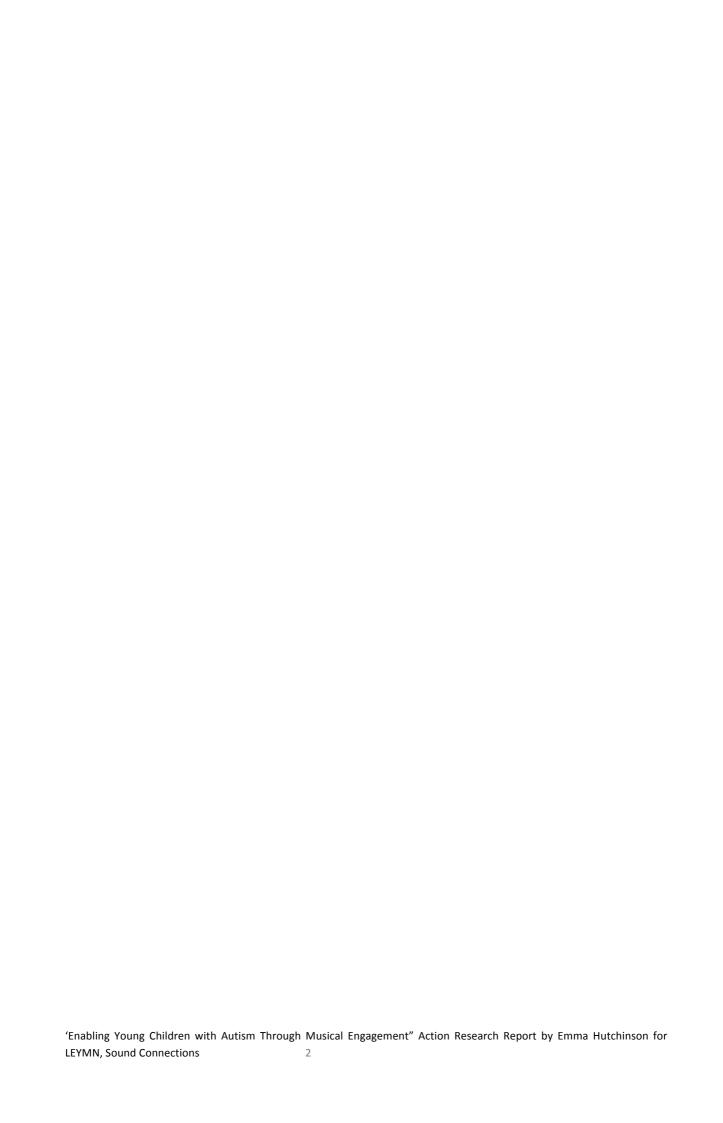
August 2013

By Emma Hutchinson

For London Early Years Music Network (LEYMN)







Acknowledgements

Acknowledgements and huge thanks go to the following, without whom this project would not have been possible:

Sue Elliot, Head of SENCO, RB nursery school, West London
The SENCO team
The SENCO children
The Music Educator
London Early Years Music Network and Sound Connections for funding support

Chapter One

1.0 Background

Sound Connections is a leader in research and advocacy for the music education sector in London. London Early Years Music Network (LEYMN) aims to promote and develop best practice in music education for the Early Years. It also supports and facilitates research in the early years music sector, in order to build evidence of the power of music in reaching young children. This action research is part of this work.

2.0 Aim of Case Study

The aim of this case study was to explore what 'toolkit' music educators might need when teaching disabled children. A number of complications were prevalent from the outset since the quantity and complexity of disabilities in young children is extremely broad, and often undiagnosed. Current objectives in music provision too, refer in many cases to therapeutic rather then educational since it draws upon 'expressive qualities, dynamic form and capacity for dialogue inherent in music (Guerrero and Turry, 2012)'.

3.0 Music Therapy or Education?

Before we could even begin our quest to find a 'toolkit' a brief background on existing and emerging influences in current research and practice is necessary. Many articles refer to the disparity between music education and therapy, and the cross-pollination of the two. 2000-2010 represented a time of intense change in the thinking of music delivery for disabled groups (Young, 2011). A key advocate for music therapy is the globally recognised Nordoff-Robbin's approach that encouraging self-initiated musical responses. Depending on the child or group's needs, emphasis would be given to each area that might enhance communication (and subsequently socialising), and facilitate multi-sensory ability.

Recent research stressing the need to focus more keenly on music as education is documented in Ockleford's 'Sounds of Intent' project. The national 'P-levels' recommendation for music with disabled groups as researched in his Promise report (2012) confirms shortcomings. A music educator is interested in the musical aims and achievements that could transpire. On the other hand a music therapist refers to the therapeutic benefits music brings to a child's social and communicative development. The perception of music as therapy by SEN staff is often assumed because

- previous experiences included the notion of therapy first, and the subject matter (music) second
- the pupil is disabled
- referrals for specific activities outside of school are mainly recommended by health organisations

In this case study we evidenced the need for respect in both disciplines with the music educator and SEN team acknowledging the importance of music therapy and music education working 'in synthesis' (Rocca, 2008:268).

4.0 The Early Years Setting

The chosen setting for this case study was within a complex involving a state nursery school, children's centre and housing estate. The space was free from furniture in a room away from the main nursery. This helped the group to feel as though they were going to a special music room.

4.1 The Early Years Group

The group was an existing special educational needs group (SEN) involving 9 children between 3 – 6 years old. Many of them were pupils at the nearby nursery school. Some came together as a consequence of diagnosis, so did not know each other.

The head of SEN generously allowed exclusive access to this group for an hour each week for 8 weeks, with compulsory attendance from each child's supporting adult. All but one was registered as either autistic, or waiting diagnosis. One child had a prosthetic leg. The differing needs of each child presented severe or moderate language delay, anxiety, poor eye contact, little or no eye focus and concentration and hyperactivity traits.

From the outset, and in line with expected tools required by a music educator, knowing the background of a group was crucial. By meeting with the support unit, Kirsty, the music educator was given the behavioural patterns of each child. This included preferences to sound, areas to be sensitive to, such as stimming, intolerance to specific sounds/activities, severity of disability, and in particular, the personality traits of each child. The head of SENCO gave us details of each child relating issues such as:

- Physical sensitivity
- Behaviour patterns
- Language preferences
- Autistic traits
- Social ability
- Family background (siblings etc.)
- Registered need (on SEN register)

We wanted to find out if there were any musical preferences from the group. Comments such as 'the children are very physical', 'they do lots of dancing and moving', 'they are not normally together as a group' were helpful in informing the music leader of what to expect, and to think about how she might dispel any distress that might occur in a new environment, activity and with other children they did not normally mix with.

5.0 Case Study Structure

The project had three components:

a/ **Prepare**

- Pre-project meet and skills exchange
- Discussion and sharing of aims and objectives

b/ Sessions

- Each week for 8 weeks
- January to March 2013
- Filmed, recorded and notes taken

c/ **Evaluation**

- Edit of filming and notes
- Shared evaluation of what was observed
- Completion end April 2013

6.0 The Method

This case study used three modules taken from the Nordoff-Robbin's approach to deciphering responses:

Instruments

Moving

Vocalising

A fourth *Resources* module was included as part of a structured framework for musical experiences offered each week.

6.1 Outline of Music Lessons

It was imperative to ascertain what music meant to the SEN support team before establishing the outline of lessons. Examples of responses given from a brief questionnaire on what music means to young disabled children were as follows:

"A song is not just a song, the music therapist can bring it to life..."

"Music therapy is about meeting the child's needs"

"Music education seems more skills based"

"Our therapist gave each child as much or as little attention as they wanted".

Kirsty and myself as researcher confirmed the proposed outline, and what was expected of the SEN unit and their children. We clarified that the focus would be on musical aims and outcomes and our intention in finding out what skills might emerge as a consequence of regular music making with this type of group. Our overall aims reflected the Early Years Foundation Stages guidelines of reaching the whole child in musical ways.

6.2 The Music Educator

Kirsty is a trained music educator and qualified teacher, singer, pianist and guitarist. She is not trained as a music therapist, although has experience in working with special needs including those with profound cognitive impairment and autism. In previous teaching work Kirsty approached all music sessions with the objective of musical aims in mind

6.3 The Framework

Together we created a fixed weekly framework (Appendix 1.) from which to springboard musical activities. The repetitive and positive routine was unthreatening and flexible, and the group felt reassured by the 'anchor' of a fixed framework from which a variety of music took place. The familiarity of a routine provided reassurance, and an understanding of what they might expect each week. The framework occurred over a 1 hour period with each module being 5 minutes each. The framework opened up possibilities of self-initiation by the children, staff participation and spontaneous development within the realms of the additional 30 minutes allowed.

During the final lesson, we invited parents and the head of SENCO to attend a viewing of film footage, together with a presentation of the CD and instrumental gift to each child.

6.4 Early Childhood Music Delivery

As a consequence of our fixed template the following principals were retained as for music delivery with mainstream nursery children.

- Welcome, acknowledging and musically warming up
- All-sensory awakening (visual, physical, vocal, touch, and other subsidiary senses)
- Immersion of moving, vocalising and tactile exploration as a complete unit
- Solo and group exploration, play and singing
- Compositional exploration
- Shift in dynamics of each module to retain focus throughout

7.0 Ethics

All 9 families were happy to confirm signed consent to the case study, including filming and observational notes being taken during the life of the project. All names have been changed to respect the rights of the individual to confidentiality.

The supporting SEN teachers knew each of the children well, and were extremely supportive of the music project. The head of the group was extremely positive about the idea of a music project since she was aware of the benefits it could bring to communication, as well as bringing the group together in a mutually joyful activity. Without prompting she encouraged full attendance to all meetings, training and lessons.

8.0 Collating the Evidence

For the purposes of mapping repeat tools/skills that might emerge, responses were taken from written jottings and video clips throughout the 8 weeks, and logged. Afterwards, the evidence was analysed by the researcher with input from the SEN support team and the music educator.

8.1 Template for Responses

A template for jotting down evidence as collated from video footage and written notation was established (Appendix 2). This template enabled me to note any new and repeat techniques of delivery emerging each week. In parallel we acknowledged the false economy in assessing repeat patterns of behaviour by children with specific needs (Nordoff-Robbins, 1980).

9.0 Evaluation Methodology

At a pre-project meeting involving the SEN unit, music educator and researcher we acknowledged equal participation and skills sharing from the outset. The triangulation approach helped to draw together information to 'reach a better understanding of the research topic' (Cohen, Manion and Morrison, 2000 cited in Robert-Holms, 2005:40). Analysing responses were taken from video footage, jottings and recorded conversations, with relevant literature in the field is acknowledged. A qualitative approach was adopted since positive responses in very young children are compelled through relationship building and shared experiences (Mukherji and Albon, 2010).

CHAPTER TWO

Summary of Findings

Findings taken from all jottings, video evidence and correspondence from the three parties resulted in the following:

10.0 Knowing Your Pupil

Autistic traits

Awareness of the specific needs of a group is vital if music making with young children is to be a success. By looking initially into habitual behaviour of autistic children *prior* to the start, Kirsty adjusted her approach to music teaching and her expectancy of overall achievement. As with mainstream nursery teaching, pre-term preparation is part and parcel of a nursery teacher's professional role. Kirsty drew on the following areas for information:

- Literature of existing musical activity in early childhood
- o Literature in the field involving autism in young children
- o Pre-term meeting with SENCO staff
- Background and individual traits of each child

Children with autism often have difficulty in relating to people, particularly those they do not know. They may be reduction in eye contact, emotional detachment between peers and family, preferences to objects (toys) over human engagement and poor social skills generally. Vocal communication can range greatly from none, to proficient language use, included repetitive speech patterns (e.g. echolalia), (Kern, 2012:26). Excessive intolerance to particular sensory mechanisms such as sound, motor and physical experiences is also acknowledged. Physical difficulties can be manifested including being clumsy, or over-exuberant and unaware of own personal space. They can too, be extremely energetic, or lethargic and uncoordinated without apparent reason (Stock, 2005:5).

Any music teaching with an SEN group needed to consider the varying complexities of autism commonly referred to as a co-existing disability to sensory processing disorder (SPD), and to recognise behaviour signals that might require a change of tack or intervention.

10.1 Allowing Time and Space

By enabling time and space for young children to respond to a musical experience we can refer to the possibilities of visual, gestural and aural prompts in any given model of music teaching (Martin, 2012:107-8). This method of music delivery tried to avoid an instructive approach, and allowed each lesson to be fluid thereby offering the possibilities of ownership by the children whenever they desired. By allowing additional time Kirsty was able to deliver, repeat, then partially withdraw, and then observe the responses and preferences by individuals. Other positive factors also emerged including the general ambience of each session and social reciprocity (Guerrero and Turry, 2012:133).

10.2 Building Relationships

One major key to maximising responses and a child's musical skills was to acknowledge the importance of trust and reciprocity. Autistic children are uncomfortable with engaging in spontaneous communicative exchange, particularly with a stranger. By allowing a support worker to be present for each child the speed at which Kirsty was able to musically engage (VC.10), and to build up a relationship of trust. Reference can be made to Kern and Humpal (2012)'s notion of emotional attunement and shared attention where musical elements are accessed through interactive music making (p.134).

Notably, when encouraged to fully participate, the SEN staff's actions and singing were often mirrored in their child's responses (Vid:staff).



11.0 The Music Leader

Personality preferences

By retaining clear musical aims and a simple structure from which to move (fig. 2), Kirsty's role as a reflective music practitioner began to emerge (Mukheri and Albon, 2010). By understanding a little of the children's needs, the process of teaching (i.e. teaching by being) helped to create natural musical progression in each child. Specific personality traits were critical to assisting in this progression:

11.1 Calmness

We acknowledged the paradigm between interpreting what went on, with the ingredients in overall early childhood development. Kirsty's personality, personal experiences and professional desires became immersed in her delivery. She was part of the process and a role model not just to the children but to the SEN team too (Vid:worm). Calmness and a panoramic focus (of the whole group) helped Kirsty to be flexible as well as to cope with occasional negative responses that might be triggered by

- external (personal) factors
- being unable to cope with a new or unexpected situation

In (Vid:scream), Aye became distressed and angry, and made motions towards the door with consistent, loud cries. Kirsty acknowledged his desire to leave, but with the support of his key worker, pursued the activity. Aye could not cope with the contrasting dynamics (loud and soft) and perhaps too, as a sleep and wake song he did not want to 'go to sleep' since for him, this represented a real and unwanted activity. As Kern states, 'children with ASD often fail to engage in make-believe play...' or 'social imitative play' (2012:26). By pursuing the activity, Kirsty was enabling

- the core objective of musical engagement (the group)
- management of the unknown (the autistic child)

Kirsty's skills were clearly demonstrated in Vid:scream. She remained calm, and pursued musical aims thus enabling the majority of the group's responses to emerge without interruption, whilst acknowledging eventual change through shifting to child-led activity - "Oh!" "Oh!" whilst covering her mouth (Vid:scream). We could refer to this imitative activity/sound with a child as 'mirroring' (Kern and Humpel, 2012).

11.2 Flexibility

This skill was evidenced throughout the life of the case study. Kirsty moved from activity to sound making, change of topic or remained with one for longer then anticipated. Always constant was the link from one to the other via the inter-shifting control procedure from a young child, to adult, to music educator. Whilst the aesthetic journey may have changed, the core musical aims remained. Indeed, many examples were notably achieved as a direct result of a musical aim. In (Vid:shakers) we can reflect on musical elements achieved as a result of being enabled by the music educator:

- Music educator, in charge, presents the instruments
- Children take charge, moving with them, exploring, and demonstrating
- One child (in a pink top) takes charge, and hands round the basket to the adults
- One child (in a red top) watches his key adult, imitates, then elaborates

One characteristic of autism is the desire to take control; to refuse support and to be the leader. Notable evidence included Sou in his storytelling skills (Vid:story) and Lere taking charge of a song (Vid:in charge).

11.3 Eye Contact

Another emerging personable skill was consistent eye contact. As earlier noted, autistic children struggle with non-verbal behaviours in communication. Kirsty looked at each child, and acknowledge every child through musical play. In an earlier project involving children with multiple (brain, sensory and motor) learning difficulties, Kirsty was active in her efforts to acknowledge each child at their eye height since all were in wheelchairs. We could refer to this skill as underpinning, since empathy occurred together with the will to participate. A very young child pursues an insatiable urge to have a go. With restricted motor, sensory or mental ability, active sensory acknowledgement on the

part of the music educator helps them to achieve their musical (in this case) potential, however small.



11.4 Empathy

No less significant is the ability of a music educator's personality to empathise directly with young children, whatever their specific needs. Very young children are drawn into strong visual motion and in turn, are compelled to participate. By using strong, positive motor visuals (arms up in surprise, facial expressions) non-verbal communication Kirsty not only helped them to appreciate the moment, but later, compelled musical (pitch) utterances ("oh no!" "up!" by a child who was non-verbal).

OTHER TOOLS

12.0 Creating Boundaries

Within the framework Kirsty developed a key skill in understanding musical role-play. On several occasions involving un-tuned instruments, Kirsty would lead the 'orchestral play' with an instrument and simple melody. She noted who was intrigued by her role as leader. Then, by eye contact alone, she would offer her instrument. This was the signal for "my turn, your turn". As a consequence of gaining confidence in looking, the child became the new leader. The same melody and play would resume. The notion of solo and orchestral play led to opportunities for composition which, given more time would have produced compelling results.

12.1 Mirroring and Imitation

In any child enjoying new experiences, developing their sense of 'my way' by mirroring or imitating (as earlier discussed) the music educator is empowering the child that in turn helps him/her to develop a musical response further. The job of a music educator in this case is to continue to support the 'me, you' approach, then filter via a musical shift. Alternatively, the music educator should recognise a slight adjustment by their

pupil, and embellish. We know that personable characteristics in children with SEN are all important here since, social behaviour depend on mutual cohesion and shared experiences. A music therapist might suggest that these outcomes are therapeutic, which, indeed they are. Music learning too, depends on these key social interchange skills. In this case we can acknowledge the transfer benefits of therapy and education.

12.2 Risk Taking

A component of skills requirement that emerged over the project was the ability of the music educator to step into the unknown. I refer to earlier examples, notably, coping with a screaming child without losing sight of the rest of the group, or deciphering musical responses out of repeat activities (lengthy welcome songs).

Mar is a physical boy of 4 years old. He is at the profound end of the autistic spectrum and has sensory integration issues. During a song about a wiggly worm, he threw his beads across the room. Kirsty and his key worker allowed him to pick them up, but acknowledged his actions in a visually 'queried' manner, and without admonishment. He held the beads once more, and then proceeded to wiggle them during the repeat of the song. The teacher and support worker realised his sensory sensitivity to tactile objects, Mar was not punished for his actions, but neither was he condoned. Mar's intrinsic desire to participate with his group helped him to be responsible for his actions, manage and pursue his desire to participate. Mar's experience with resources was increased over the term. These experiences in turn helped him to remember, manage, and musically achieve.

12.3 Participate and Withdraw

Nursery music teachers may recall many occasions when the teacher sings, and no-one sings with her. If the material is inappropriate for the age group the challenges are likely to outweigh the possibilities of musical engagement. If however, the melody is of an appropriate pitch for both supporting adult and children to absorb and vocally recall then part of the process of learning a musical activity is for the teacher to introduce a song, and then to vocally withdraw as she repeats the song over time. With this skill we noted a reduction and even stillness in the group's physical, visual and vocal input. Depending on their disability, a child is likely respond with a primary sensory mechanism. In the case of autistic children, many have strong physical attributes but poor language. They may move and correspond (mirror) the teacher, or even their peers (Vid:like me).

In this approach we can refer to Martin's comments on prompting and fading (2012:107). Applying this 'skill tool' recognises the need for a child, however disabled, to feel empowered and acknowledged. Her suggestions of five types of prompt strategies (physical, verbal, visual, model and gestural) offer differing approaches, depending on the need of the child.

12.4 Enabling Interaction

Communicating your aims to the supporting staff, however few there may be shone out a key priority in imparting musical intelligence to children with special needs. Aside from a disability, all young children respond positively to an engaged mentor figure. With approval, understanding (of what is expected of them) and participation, the group will be more approachable. By communicating aims and the outline at the start of the project, Kirsty's task of 'breaking the ice' and drawing out specific musical objectives was much easier.

'Enabling Young Children with Autism Through Musical Engagement" Action Research Report by Emma Hutchinson for LEYMN, Sound Connections

12.5 Being Respectful

Being respectful of the supporting team as SEN specialists gave the music educator more in-depth information then a book ever could. This team was part of the triangulation approach (Mukherji and Albon) mentioned earlier. By being invited to support the music educator with their own specialist knowledge they all participated fully, and were empowered by the knowledge that they were as equals to the music educator and thus, *wanted* to participate (Vid:together).

13.0 Vocalising and the Shift Effect in Sensory Focussing

Using appropriate resources and instruments is an effective tool to initiating musical responses and subsequent learning. Taking a core subject such as 'train' Kirsty worked on the basis of

- Sound
- Sight (of resource)
- Touch (tactile)
- o Motor
- Resources

By layering levels of information concisely - we might refer this to constructivism (Ozgur, 2004) – the group were able to collate the information given, and responded to the best of their ability. In particular we can note the calmness at which Kirsty approached this activity, and the space she allowed for children's creative responses to emerge (Vid:train). The shifting effect of sensory output (sound, visual, motor, touch) could arguably address the needs of a young child since, differing complexities of needs respond to different mechanisms of early years teaching – a 'something for all' approach.

13.1 Resources Used - Instrumental and Other

Musical play using carefully chosen props is a critical component in successful teaching since adults and children are mutually achieving. In Vid:merrily we noted that imitative responses compelled further activity which in turn moved fluidly into singing by all. This example reflects on the possibilities of Early Learning goals being attained as a consequence of interactive music making. Use of resources for purposeful musical effect also included the common sock in "Wiggly Woo". Kirsty made wiggling sounds. She then introduced the bead jingles (beads on a string). These gave tactile experience and meaning to Kirsty's vocal utterance. The subsequent song was introduced with Kirsty's own sock on her hand as a worm.

The children heard, they felt, they saw, they listened, and then they were each given a sock with the bead jingles. Time was allowed for the group to explore at their pace. Over a very short time during the same lesson, snippets of the song were heard ("worm", "garden"). These could be referred to as 'anchor words' (Hutchinson, 2010) since they were relevant to the subject, and gave meaning to the theme through the sounds (wiggle) and images (sock). Mirror activities (see earlier Mirroring and imitation) are a powerful tool to enhance the flowering of musical neurons in a young child, particularly with possible sensory blocks as a consequence of a disability.

Another, notable song chosen to reflect multiple sensory ability and choice was a song about a train using 5 notes within the middle c range together with the train whistle and toy train. Later, a fish was useful in enjoying a pitch based fish song, using lycra and a hanky shaker for each child.

Motion-based songs, as with all chosen songs in this case study retained a strong beat, whilst offering syncopated rhythm, and compelled the group to move together in sociable ways. By choosing songs such "up in the air I fly" (cd) Kirsty was able to log responses to pitch as reinforced by the use of hoop ribbons, the word "up" and the elevated melody. Immersing colourful, relevant resources as part of a musical aim provided a genuine and shared enjoyment, as well as helping the children to make sense of the song content, and to immediately engage, thereby breaking down communicative barriers.

14.0 Compositional Storytelling

We can look to the relevance of multi-arts experiences to young disabled children, to help draw out musical responses, and to reinforce a sense of ownership on shared experiences in musical learning. Within each lesson Kirsty encouraged mini-stories to emerge by using a range of un-tuned (drums, maracas, claves) and tuned instruments (glockenspiels) to create atmosphere and sound making. Referring to earlier tools, time and again, by giving her group time, and the space embedded with a sprinkling of silence (no speaking, and withdrawing from pro-active participation), a child was compelled to take over (Vid:story).

15.0 A Celebration of Music Making

Anticipation of a mini-celebration was observed as being an empowering component of a toolkit since, young children respond positively to a grande finale, or closure. We used the final session to watch the edited video clips by inviting the families of each child and the head of SENCO. A gift of a cd with the group's singing, together with a hanky shaker (Vid:shaker) was made to each child. In the careful choosing, these gifts were acknowledged as both familiar and special, and of the group's making.

16.0 The Music Educator as a Vehicle

Kirsty as the music educator became the vehicle from which the disabled child could vocalise, achieve, and take home the fruits of their labour thus, initiating ongoing musical possibilities with family members. The Head of SENCO confirmed that music lessons would continue onwards since the SENCO team acknowledged the intrinsic value and benefits that music had on their group. For everyone, this news was the icing on the cake.

CHAPTER THREE

So, what's in the toolkit?

In conclusion, and based on the aforesaid evidence of a music educator teaching music to nursery aged children with SEN I can make the following recommendations to consider as a vital part of a music toolkit.

17.0 Relationships

- Pre class meeting and knowing background of participants
- o Researching the traits of a disability (e.g. autism)
- o Establishing a relationship with the group and support unit

17.1 Personality

- Strong eye contact and empathy with each child and adult
- o Calm
- o Flexible
- Willing to take risks
- Persistent
- o Respect

17.2 Template and Outline

- o Clear framework with established musical aims
- Appropriate and quality resources that link to theme/storytelling possibilities

17.3 Monitoring and Jotting

- o Participatory, triangulation support
- o Recording and videoing

17.4 Technique in Application

- o Mirror and Imitate
- Layering of sensory ability and opportunity
- Role-play
- Observing and acknowledging
- Allowing time and space
- o Ability to take educational risks
- Sociably enable
- o Clear beginning and closure

17.5 Material and Resources Used

- o Appropriate to sensory awakening and age group
- o Thematic and storytelling link
- o Appropriate and quality tuned and un-tuned instruments
- Recording and visual jotting (writing notes)

18.0 Caution

Evidence of all the above can be noted in Vid:skills, taken during the last music lesson. Caution must be acknowledged if considering music teaching with a disabled child or group using this case study as a fixed template since only one type of disability group was studied.

With sensitive and thoughtful planning by using this 'toolkit' as a flexible guide, musical learning can be delivered with the young child's ability (what they can do) rather then disability (what they cannot do) in mind. Indeed, the emerging musical achievements in a child with special needs as a consequence of music lessons gives cause for celebration, however small.



Appendix 1.

The Framework

Date: Week:	Focus:
-------------	--------

Name	Welcom	Warm-up	Prop/Soul	Moving/Dand	Instrumen	Reflect/Farev	
Ali							
5.1							
Roh							
Lere							
Rane							
Moh							
Mar							
Aye							
Eli							
Suh							

Appendix 2

Template for Responses

Welcome	Warm up	Prop/Sounds	Movement	Instruments	Reflection & Farewell
Sing hello	Everybody do this	Worm on my toe	Big blue train	Wiggly/Explore	Recap/Sing goodbye
Activity	Activity	Activity	Activity	Activity	Activity
noted	noted	noted	noted	noted	noted
Skill	Skill	Skill spotlight	Skill	Skill	Skill
spotlight	spotlight		spotlight	spotlight	spotlight

References

Braten, S. (ed) (2006). Intersubjective communication and emotion in early ontogeny. Pub. Cambridge University Press

Braun, K.A. and Bock, J (2008). Neurosciences in Music Pedagogy. Gruhn, W. & Rauscher, F. H. (eds). Pub. Nova Biomedical

Blackburn, C. Spencer, N. and Read, J (2013). Prevalence of childhood disability and the characteristics and circumstances of disabled children in the UK: secondary analysis of the Family Resources Survey. Taken from the internet, www.efds.co.uk/resources/facts_and_statistics April 12th 2013

Education Department (2012). Statistics for special needs in the UK. Taken from website: http://www.education.gov.uk/researchandstatistics/statistics/allstatistics/a00210489/senengland-jan-2012

Flohr, J.W. (2005). The musical lives of young children. Pub. Pearson Prentice Hall.

Gruhn, W. & Rauscher, F. H. (eds) (2008). Neurosciences in Music Pedagogy. Pub. Nova Biomedical

Guerrero, N and Turry, A (2012). Nordoff-Robbins Music therapy – an expressive and dynamic approach for young children on the autism spectrum. From, Early childhood music therapy and autism spectrum disorders by Kern, P. and Humpal, M (eds). Pub. JKP

Hallam, S (2013). The power of music: *It's impact on the intellectual, social and personal development of children and young people.* Taken from 'The International Journal of Music Education', 2010. http://ijm.sagepub.com/content/28/3/269

Hope, C (2013). Music therapy in early years. Taken from a powerpoint lecture at Nordoff-Robbins Music School, 20th March 2013, The John Day Company, New York.

Hutchinson, E (2010). How do young deaf children respond to sounds? Exploring children's responses within the context of a regular music lesson. A dissertation as part of MA in early childhood music, Birmingham and Birmingham City University. Available from emma@musichouseforchildren.co.uk

'Enabling Young Children with Autism Through Musical Engagement" Action Research Report by Emma Hutchinson for LEYMN, Sound Connections

Kranowitz, C. S (2005). The out-of-sync child: recognising and coping with sensory processing disorder. Pub. Perigee

Kern, p (2012). Autism spectrum disorders primer – characteristics, causes, prevalence and intervention. Taken from Early childhood music therapy and autism spectrum disorders by Kern, P. and Humpal, M (eds). Pub. JKP

Kern, P. and Humpal, M (eds), (2012). Early childhood music therapy and autism spectrum disorders. Pub. JKP

LaGasse, A.B. and Thaut, M.H (2012). Music and rehabilitation: *neurological approaches*. From Music, Health and Wellbeing edited by MacDonald, R. Kreutz, G. and Mitchell, L. Pub. Oxford

Lim, H.A (2012). Communication and language development – *Implications for music therapy and autism spectrum disorders*. Taken from Early childhood music therapy and autism spectrum disorders by Kern, P. and Humpal, M (eds), (2012). Pub. JKP

MacDonald, R. Kreutz, G. Mitchell, L. (eds) (2012). Music, Health, & Wellbeing. Pub. Oxford

Malloch, S. and Trevarthen, C. (eds) (2009). Communicative Musicality. Pub. Oxford University Press

Martin, L.K (2012). Applied behaviour analysis – *introduction and practical application in music therapy for young children with autism spectrum disorders*. Coast Music therapy. From Early childhood music therapy and autism spectrum disorders (2012). By Kern, P. and Humpal, M (eds). Pub. JKP

Muckherj, P. and Albon, D (2010). Research methods in early childhood: an introductory guide. Sage

Neville, H (2013). Effects of Music Training on Brain and Cognitive Development in Under-Privileged 3-5 year olds - *Preliminary Results*. Taken from the internet: http://www.dana.org/news/publications/detail.aspx?id=10752 March 18th 2013 Nordoff-robbins (2009). 'What is music therapy?' Taken from the internet, http://www.nordoff-robbins.org.uk/musictherapyindex.html

Nordoff, P. and Robbins, C (1977). *Creative music therapy - individualized treatment for the handicapped child*. Nordoff-Robbins music therapy clinic, New York University, 26 Washington Place, New York, NY 100003. Pub. NY Library of Congress

Nordoff, P. and Robbins, C (1980). Creative Music therapy: *individualized treatment for the handicapped child*. Nordoff-Robbins Music Therapy clinic, New York University, 26 Washington place, NY 10003. Pub. The John Day Company New York.

Ockleford, A (2012). Songs without words: exploring how music can serve as a proxy language in social interaction with autistic children. From 'Music, health and wellbeing'. MacDonald, R. Kreutz, G. and Mitchel, L (eds). Pub Oxford

Ockleford, A. and Markou, K (2012). Music education and therapy for children and young people with cognitive impairments: *reporting on a decade of research*. From Music, health and wellbeing (2012). MacDonald, R. Kreutz, G. and Mitchell, L (eds). Pub Oxford

OFSTED Music in schools: wider still, and wider. March 2012, No. 110158. Available on the internet, www.bishopg.ac.uk/dosc/PDE/CPR%20ofsted%20Music%20in%20schools.pdf

Ozgur, O (2004). Constructivism in Piaget and Vygotsky. From The Fountain Maazine on life, knowledge and belief. Available on the internet: http://www.fountainmagazine.com/Issue/detail/CONSTRUCTIVISM-in-Piaget-and-Vygotsky

Pound, L (2006). How children learn 3. Contemporary thinking and theorists: *an overview of contemporary educational and psychological theorists*. Pub. Practical Pre-School Books

Papworth Trust, (2010). Facts and figures: *disability in the United Kingdom*. Taken from the internet:

http://www.papworth.org.uk/downloads/disabilityfactsandfigures2010_100202152740.pdf March 18th 2013

Roberts-Holmes, G. (2005). Doing your early years research project: *a step by step guide*. Pub. Sage

'Enabling Young Children with Autism Through Musical Engagement" Action Research Report by Emma Hutchinson for LEYMN, Sound Connections

Rocca, C (2008). The emerging 'musical self' from Salmon, S (ed). Hearing-Feeling-Playing: *music and movement with hard of hearing and deaf children*. Pub. Reichert Verlag Wiesbaden.

Rocca, C (2008). The emerging "musical self". From Hearing-Feeling-Playing: *music and movement with hard of hearing and deaf children*. Salmon, S (ed) (2008). Pub. Reichert Verlag Wiesbaden:271

Ron Fang, E (2009). Music in the lives of two children with autism: *a case study*. Masters theses and graduate research. Taken from the internet: http://scholarworks.sjsu.edu/cgi/viewcontent.cgi?article=4344&context=etd_theses San Jose State University

Salmon, S (ed) (2008). Hearing-Feeling-Playing: *music and movement with hard of hearing and deaf children*. Pub. Reichert Verlag Wiesbaden

Tiran, I (2012). Musicking through transition: first-year international students' experiences of creative improvisation in group music therapy sessions. Mini-dissertation in partial fulfilment for the degree of MMus (Music Therapy). Taken from the internet http://upetd.up.ac.za/thesis/available/etd-11052012-131537/unrestricted/dissertation.pdf Dept of Music, University of Pretoria

Stock Kranowitz, C (2005). The out-of-sync child – recognising and coping with sensory processing disorder. Pub Perigee

Trevarthen, C. and Flohr, J.W (2008). Musical learning in childhood: *Early developments of a musical brain and body,* from Gruhn, W. & Rauscher, F.H. (2008). 'Neurosciences in music pedagogy.' Pub. Nova Biomedical.

Xu, A (2011). Disability in the United Kingdom: *Facts and Figures*. The Papworth Trust. Taken from the internet:

www.papworth.org.uk/downloads/factsandfigures_disabilityintheuk_july2011_110721132605 .pdf

Young, S (2011). The education leader's guide to special educational needs green paper. Pub NAHT. Available on the internet: http://www.naht.org.uk/welcome/news-and-media/magazines/features/series-education-leaders-guide-to/education-leaders-guide-to-sen/

Video Clips

- 1. In charge
- 2. Like me
- **3.** Merrily
- **4.** Screaming
- 5. Shakers
- **6.** Souh up
- **7.** Staff
- 8. Story
- 9. Train
- **10.** Vocalising
- **11.** Worm
- **12.** Skills
- 13. Together