Sound Connections

Action Research Reports

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Can music improve vocalising in young children with language delay?

A collaboration between a speech and language therapist and a music educator

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Contents

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"Give a child's imagination musical wings

Sounds may burst forth as a bubbling spring."

Emma Hutchinson

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. By supporting and facilitating research in the early years music sector, a body of evidence is built to showcase the power of music in reaching young children. This action research is presented as a model from which early childhood specialists may draw inspiration.

2.0 Aims of Action Research

The aim of this Action Research is to look at the possibilities of a practical and mutually respectful collaboration between a speech therapist and music practitioner, and to explore ways of improving language and vocalisation in young children with language delay.

Drawing on the perspective of two specialist fields we hoped to provide a model for future collaborations to support vocalising in young children. We aimed to document evidence that effective collaboration could support and even speed up the process of speech acquisition. By working in partnership to deliver appropriate music activities from a speech perspective we hope to present a truthful analysis of what transpired. Finally, we want to consider whether positive outcomes could influence and support future practice for speech and language therapists and music practitioners.

3.0 Speech and language therapy – an introduction

The role of a speech and language therapist focuses on a range of desired outcomes:

* To assess the child using a mixture of formal and informal assessments
* To accurately diagnose the child's speech and language delay
* To formulate a therapy plan based on evidence based practice
* To provide direct and/or indirect speech and language sessions in a range of settings to support generalisation.
* To build on the child's strengths and develop the child's weaknesses.

Wade, C. (2014)

3.1 Early childhood music practitioner – an introduction

Music House for Children believe that the role of a music educator is to provide musical learning that is appropriate for each age group. Music learning in children between 3-5 years comprises the following components:

* Engaging musically as a group and in solo using modules of singing, instrumental and compositional
* Develop an appreciation, understanding (of music components), composition and musical celebration (performance) by applying age-appropriate approaches
* Nurturing young children's musical opportunities through a range of formal and non-formal activities, child-initiated and adult-guided musical play
* Develop a music repertoire in singing and musical play to support young children in a confident transition to primary school

4.0 Sourcing a speech and language therapist

The initial decision by the researcher (EH) to source a speech and language therapist (SLT) from the National Health Service Trust (NHST) language support teams was beset with delays and complications. It was EH's intention to enlist the interest and support of a speech therapist via the public sector, rather than via the private sector. The reasons included:

* A desire to collaborate with a respected, local public service
* Extend the skills of local, NHS commissioned SLT teams
* Examine the possibilities of a financially sustainable partnership as a consequence of positive outcomes and shared resources and skills
* Highlight the quality and commitment to continuing professional development, partnership working, and best practice for NHS funded SLT and music leaders
* A professional wish to support the public sector

By working with a local SLT from the NHS we could maximise our reach to young children registered with language delay within local communities. We could look more closely too at whether music could provide SLT professionals with continuing professional development opportunities (CPD).

Based on outcomes we hoped to:

a/ Attribute music as a significant component in the process of language development in young children with varying degrees of speech delay when provided in partnership with SLT services

b/ Use shared best practice and feedback to support ongoing SLT services for young children with language delay

c/ Make the best uses of shared resources and skills thus, providing value for money

4.1 Recruitment of a speech and language therapist

Unfortunately, and after initial enthusiasm from a representative of a local SLT service in West London and six weeks of deliberating via email and telephone communication, the offer of a music/speech collaboration was declined. Reasons were cited as time constraints and commitments by the SLTs elsewhere. This decision was a disappointment, particularly as one of their team was extremely interested and able to make time and a day available with a confirmed group of children.

With a time cap on our funding support we decided to advertise via the internet. We received 27 responses out of which at least 6 were keen to commit without charge, and could begin immediately. All were independent speech therapists. Some were post-graduate students. After on-line and direct interviews with the Disclosure and Barring Service, and checking their references, EH recruited a Laura G, a SLT student from City University and Chris W, CEO of London Speech Therapy Ltd, based in Harley Street, London.

5.0 Sourcing children registered with speech and language delay

With the support of the head of SENCO and RB Children's Centre, we were able to inform families of the project from which their children could benefit. All but two of the eight families confirmed their interest and commitment. The children comprised:

Who	**Age**	**Nationality**	**Delay**
Twin girls (Ecr and Air[1]) 2 yrs	7 mths	Turkish	Moderate
Twin girls (Sam and Sab)	4 yrs	Polish/Roma	Moderate
Ezran	2 yrs 4 mths	Black African	Profound

[1] All names have been changed.

Hasey	3 yrs 3 mths	Black African	Moderate
Sajid	3 yrs 10 mths	Somalian	Profound

All were actively supported by the SENCO team and were registered with speech and language delay. Some of the children attended RB nursery school, so were familiar with the staff. All the participating children were new to us, and none had experienced regular music sessions before.

5.1 Particular areas of language delay

This group presented a variation of noted language issues. During the first couple of lessons we noted that Ezran (2 ½ years) was silent, un-smiling and non-responsive. Only when an adult held her hand would she move or look carefully (at an instrument or prop). According to the SLT she portrayed signs of selective mutism. According to Buckley this trait is particularly common in ethnic minority groups of girls from between 3 – 5 years old. Selective mutism can be anxiety related (moving, isolation, new placement such as nursery) (Buckley, 2003). Ezran 'required maximal support from Laura…and was unable to do so independently' (wk3Log). Her mother and baby brother were present throughout.

Ecr and Air (nearly 3 years) were non-verbal in during the first few weeks, but physically responsive. Both demonstrated increased animation as the weeks unfolded. Their mother was present throughout.

Sam and Sab (4 years) were also non-verbal in the first few weeks, although occasionally Sab would utter Russian words. Through animated persuasion they too, began to relax and show little sparks of interest. Their mother was present throughout.

Hasey (3 years) was non-verbal and watchful. During the early weeks she responded only in movement, and when Sajid led the way. Her mother was present throughout.

Sajid (nearly 4 years) was non-verbal but the most animated of the group. She vocalised in high-pitched squeals, pointing at the source of activity (prop or visuals). Curiously her squeals were often at the same pitch to the song heard. Her mother was present throughout.

5.2 Possible causes

All participating children had intact hearing and vision, often a reason for slow language development. As with Ezran we might assume that a mixture of cultural diversity in all participants together with possible uprooted home experiences and/or nursery move may have had an impact on speech acquisition.

We know that speech acquisition is facilitated by a range of muscular movements called articulators. These fast, co-ordinated sequences of muscular movements involve up to 36 different muscles (Borden and Harris, 1984). Communication in young children requires regular communicative practice from a very young age. Delays can occur too, if parents are distracted or depressed.

6.0 Parent attendance

One criteria required for the children in addition to compulsory attendance of all 8 sessions was to ensure that a parent was present throughout. Our intention was not to insist on direct participation, but to observe over time, the development of their child's language, whether anything transpired that might have occurred later at home. We wanted to encourage parents to respond to their child's vocal achievement, however small.

7.0 The environment

We were fortunate enough to be allocated a good sized space away from the nursery environment, and free from furniture or clutter. There were plenty of windows, light and floor space with a carpet. We chose to put a few chairs out for parents to sit on. We had used the space for a case study a year before. It was the belief of the head of SENCO and the nursery in the benefits of music to their children that enabled us to pursue a new study in this setting.

8.0 Outline of activities

The aim of this case study was to work in mutually respectful collaboration with a trained speech therapist to see how music and speech specialists could facilitate language acquisition in young children. The study was broken up into four main components:

a/ Initial meeting to exchange skills, objectives and confirm outline of sessions

b/ Four x 40 minute music session with SLT participating as an assistant

c/ Four x 40 minute music/SLT session with ME participating as an assistant

d/ Final meeting to assess outcomes and feedback from ME and SLT

9.0 Songs and activities

10 songs and poems were chosen to support eight lessons and six modules.

Sing hello together
Lolly lolly POP!
Where are your eyes?
Can you make a sound like me?
On a log, Mr Frog
Underneath the deep blue sea
Walking in the rain
Windy weather
Get on your horse and ride
Sing goodbye together
(App.i)

Each one was chosen for their simplicity in language, subject matter and clear visual reference. All the songs and poems involved expressive sound making (horse and frog sounds, blowing windy and rainy sounds, etc.). According to Laura (SLT) each one was appropriate for their lack of complexity and the animal themes relevant for this age group. Each one offered Laura the chance to 'target receptive and expressive use of verbs e.g. asking what a frog would do.' (NotesLG). Further development of speech acquisition involved following an instruction with information carrying words (ICW) using the same songs ("where did the horse go?")

10.0 Establishing a template

In the separate professional capacities, the aim of a ME is to deliver musical learning with educational outcomes expected. The aim of the SLT is to assess a child's vocal ability, and build on the child's strengths by teasing out vocalising via a set of SLT approaches. With this in mind the ME devised a simple framework from which to deliver music activities. This

framework was acknowledged by the SLT. Adjustments were made as specific modules became more relevant.

Frame-work	SONGS/POEM	RESOURCES	MOVES/ACTION	SOUNDS
Welcome				
Vocal warm-up				
Prop and sound-making				
Vocalising in motion				
Instrumental and vocal sound-making				
Farewell				

Fig 1

10.1 Welcome

Using the welcome song focused on relaxing the children so they were comfortable within the space, with their peers, the ME and SLTs. A range of fun, yet specific activities would then be offered to warm up the vocal muscles and to encourage vocalising.

10.2 Warm up

Creating 'silly sounds' and vocal based activities by applying simple melodic phrases, sing-song questions offered by the ME, and drawing on child-initiated responses to the song.

10.3 Prop and sound making

Using a range of simple props relating to the song helped to tease out responses, however small. Sounds were originally initiated by the ME and SLT, before introducing a prop (such as a pop-up puppet). A related song was sung using the prop, before leaving a pause to observe any vocal responses made.

10.4 Moving and dancing

By shifting the physical activity to use of the whole space with direct links to imaginative play, we wanted to see if larger motor motion as a consequence of music and song compelled vocal utterance.

10.5 Instruments and sound making

By presenting selected un-tuned percussive instruments this module looked at whether children with language delay might begin to vocalise with similar sounds to what they heard.

10.6 Reflection

A brief recap was offered by the SLT in the form of simple questions – "what song did we sing?" "What animal did we meet?" and so on. We wanted to draw on the possibilities of memory recall and whether these children were empowered by their new-found knowledge enough to vocally recall.

10.7 Farewell

This final component acknowledged the group. Without a spotlight added to each child, we hoped to glean moments of vocal responses that were initiated by a sociable activity.

With only eight weeks of music lessons we wanted to build on critical areas of speech development together with musical engagement, but at the same time avoid over-loading the child with too much information. The critical areas for consideration included a number of principals by the ME and SLT as listed below:

11.0 Music educator – a perspective

* Absorbs new experiences in musical activities, and is focussed
* Responds to melodic phrasing patterns – physically, aurally and visually
* Begins to make sense of, and repeat melodic patterns and/or words sung
* Begins to repeat whole melodic phrases
* Begins to develop own musical direction from the original activity
* Recollects and affirms music material already experienced
* Develops a sense of musical worth as experiences extend beyond the lesson

11.1 Speech and language therapist – a perspective

* Establish areas of weakness in vocalising
* Note age appropriate weaknesses in each child and their responses to what they hear

* Nurture and introduce Information Carrying Words (ICW[2]) by applying key questions to tease responses from each child
* To use music material to scaffold new ICW via selective questioning
* To apply visuals as a step-down[3] aid to nurturing comprehension in the group
* To begin to apply step-up principles for building comprehension and speech

12.0 Ethics

All families signed a consent form stating approval to documenting the study with video and jottings. Each child had one parent who agreed to attend each week. The purpose of a loved one attending throughout was not to focus on the interactive or participatory process of a child/adult relationship, but to enable the parent to note any positive outcomes in music making that might then emerge in a home environment. One support worker was present to ensure full attendance of all the children in the event of a parent being unable to attend.

13.0 Collating the evidence

Mapping the evidence was achieved through mainly videoing snippets of each week, together with post-session discussions between the researcher, the ME and the SLT. Jottings proved to be more difficult since so much information was deciphered in any one session. Post analysis of the video clippings provided detailed evidence of communicative responses.

These video clippings were then collated into building blocks of vocal ability according to each child's initial diagnosis. I should mention here that diagnostic information given was ambiguous for each child. The information given was based on the information provided by the SENCO team as recognition of early signs of language delay. Diagnosis did not reflect more detailed examination by specialists including speech and language experts.

As a consequence of the collaboration between the SLT and the ME a template (see appendix) for noting responses via jottings and video clips was created. This template reflected two separate observation logs that were revised to be more appropriate for this kind of collaboration.

[2] Information Carrying Words refers to words that carry meaning (Knowles & Massidlover (1978)

[3] Step-down – in speech/language terms this applies to applying visual aids to support language acquisition. Step-up applies to the removal of aids as the child develops language.

14.0 Commitment and regular attendance

Accurate evidence was dependent on commitment to weekly attendance to help remove early barriers of mistrust and develop appropriately positive relationships. Engaging musically through repeated patterns, sounds and song supported each child and created a sense of ritual that is celebratory and in turn, familiar, reassuring and affirmative. A child hears, hears again and absorbs, hears again and recognises, then understands. She/he becomes competent and is in turn acknowledged (Merker, 209:52).

By keeping a register we were able to note exactly who was present and how many weeks they were in attendance. Only one child dropped out after the first lesson (due to parental reasons). Chris, our senior SLT came only for three lessons but had to withdraw due to sickness and extended travel issues. Laura, Kirsty and myself (researcher) together with all participating children were consistent with just two cover lessons taken by myself to avoid any gaps.

CHAPTER TWO

15.0 Summary of findings

The findings that emerged included notes from brief meetings between the SLT (Laura), the ME (Kirsty) and the researcher (Emma) after each session. The significance of making time for verbal meetings was the realisation and respect of the perception from each specialist to the children's responses. Our weekly overview helped to retain the core aims of the study throughout, as well as helped each participant to appreciate the reflective specialism of each one.

15.1 Collating the evidence, feedback and reports

In her capacity of SLT Laura compiled an overview from personal jottings collated throughout the study. The following summary draws together analysed evidence in equal measures from Laura and myself as researcher.

15.2 Retaining the core aims

A practical appreciation of each specialist was vital even before applying observation notes and feedback on each child's responses. The first half of this eight-week study was led by Kirsty with Laura participating and observing. Laura then took over leadership for the remaining four weeks with Kirsty accompanying as before, on instruments, singing and general music activities. This helped to retain the core focus of how young children with language delay might respond to, and be supported by music using language as it's core objective. Within each module we could realise the effectiveness of team collaboration in its relevance to language acquisition.

We now examine how these children responded to the activities presented.

16.0 Expressive language skills

Laura noted that despite lack of formal assessment all participants presented expressive language skills as 1 word level (MHRLG). This suggests that the group presented and understanding of expressive and receptive language of 1 – 2 year olds. Almost every child also displayed articulation and/or phonological difficulties through their immature and/or disordered speech. They all appeared to have fleeting, single channelled attention. All but one demonstrated age appropriate social interaction skills. However, it was in this area that

all but one child was observed to have made the most progress in. With a mean length utterance (MLU) of 1 from the start, all but one were spontaneously using 3-4 MLU by the eighth week of the study. Some responses related specifically to the theme indicating the relevance of using familiar subject matter to draw out responses (horses, frogs, lolly etc.)

16.1 Nurturing language development

Presenting choices with verb-focused picture cards also targeted the group's expressive language skills. After singing a frog song, each child was given a small frog toy, and was asked what (action) they wanted their frog to do, using visual cues. All but one vocalised their verb choice. Sam took this further with a whole sentence; "frog is jumping". Whilst these SLT aims are achievable outside of a musical context, offering a song and time for creative exploration provided a narrative framework from which each child could run with. Achievable outcomes for the SLT could in fact be greater by nurturing child-led opportunities as instigated in musical ways.

17.0 Pitching

Weeks 1 – 3 focussed on facilitating 'ice-breaker' activities through the extended welcome song "Sing hello …" whereby each child's name was repeated and accompanied by waves and smiles. Laura recalls puzzled looks from at least three children as they were acknowledged musically. No vocalising occurred at all until week three. Sajid then began to utter an occasional bird-like cry that transpired *after* a word or song she heard (vid3f). Here we note for the first time that her pitching aligns with the word uttered, but at an octave higher. We acknowledge the work of a SLT often involves songs in the opening and closing modules. One reason cited is because music is engaging. A heightened melody (pitch orientated) grasps the attention of our youngest clients who have yet to develop skills for the basis of speech and language acquisition.

17.1 Moving

'Adaptations for life in a musically communicative human world involve all parts of the body. Those of the vocal and auditory systems are of special importance' (Bannan and Woodward, 2009).

In the first 3 weeks there was a notable lack of vocalising that would otherwise be a normal, evolving function of mainstream children in this age group. What emerged clearly however, were moments of physical response that grew in intensity as time went by. Kirsty led the

first half of this study. By retaining the role of a participant observer (Mukherji and Albon, 2010) Laura was able to reflect on responses that transpired. She recalled that by enabling movement in response to simple songs (accompanied by the ukulele) the children were later compelled to utter words (of the same song) (vid3g). Also noted in this video example was Sajid repeating Kirsty's cry of "boo!" Other children in the meantime used movement to recreate "boo" without actually saying the word. A later example using "Brrrrr" had no sound based response, but a little action (shivering movements).

17.2 Using movement in conjunction with expressive music

Language can be accelerated when vocalisations are accompanied by gestures. By physically exploring and using verbal referents correlation is made to the meaning of the word 'jumping' occurring in a number of early examples, and before speech transpired (Vid5Play). Fragments of songs can be recalled once the theme is enacted, as with Bj∅kvold's anecdote of a young child being a butterfly (Bj∅kvold, 1992:75).

18.0 Tension induced response

Long, lengthy sounds do not seem to be adopted by these children. It is the surprise (pauses, rests, expulsion of sound) vocalising such as sneezing that seemed to elicit the majority of instant, and effective response e.g. "POP! Atchoo! Shhhhhh!, bwbwbwbwbw, wooooo". During week five we noted during the "Lolly lolly POP", the most explicit vocal responses seemed to come from the shortened, staccato and surprised sounds (Vid5POP). Again, we notice Sajid repeating the entire activity physically and vocally *after* hearing it twice.

If we were to look at the idea of teasing out vocal responses in the fastest possible time, it would appear that musical tension aids initial physical, then very quickly, vocal response. In Vid3c the children enjoy a harmonious, pleasing lullaby (consonance) made up of a combination of complimentary notes. Hearing a vigorous, multi-percussive sound of an octochime (dissonance) made up of unstable or transitional notes elicits instant and often specific responses. Initially these are motion based, later morphing into sounds and motion together.

Responses are noted in later examples where a harmonious melody is heard, followed by sharper, harsher sound, and prompted by the irresistible pop-up puppet (vid5rebik). Vid8fPop presents a clear example of an effective collaboration between a SLT and ME. As

the final session, the SLT has applied appropriate visuals and questions to evoke verbal response. The ME is reinforcing the familiar song with song and actions, whilst simultaneously withdrawing her voice. The children are focused, doing and singing the words from beginning to end.

19.0 Transition and verbal working memory

Offering 'musical transitions' included verbally withdrawing from a song, leaving only the instrumental sounds, pausing the song (rubato, or changing the tempo served to heightened the compulsion of each child to vocalise, particularly when working the memory to recall and to engage.

19.1 Deficits in memory

Deficits in verbal working memory are highly correlated to language difficulties (Montgomery, 2003). After just a few weeks of exposure to the same songs, in the same order, and working with the increasingly familiar routine of the template, the group shifted from internalising to uttering the words in the moments when Kirsty withdrew her voice (Vid8x).

We noted in this clip that the children 'filled in' with non-accurate approximations of the adult forms of the target words. These correlate with the speech of younger children from 24 – 30 months (Buckley, 2003). Interestingly however, they produced the correct rhythm for the corresponding song. We reflected on whether melodic encounter could facilitate memory recall in children with language difficulties. If this were the case, language aims could be exploited by providing memorable rhythms to accompany target language structures, whatever their age.

20.0 Establishing goals through the notion of play

An early function of music lessons is to draw out musical responses in vocalising and sound making. SLTs prefer speech and language goals to be functional and acknowledge intentional communication whether verbal, non-verbal or physical (NotesLG). This means other attributes such as listening, social interaction, receptive and expressive language make up vital components for a SLT's diagnosis and action plan. By using play as a foundation for musical activity the SLT and ME teased out responses that simultaneously helped the SLT and ME to retain clarity, and to achieve their aims.

20.1 Play and social communication

Theorists such as Piaget (1945) and Bj∅kvold (1992) regarded Play as a critical component in early childhood development. Each session provided highly motivating, sensory charged context whereby the children wanted to share a playful musical experience with one another. Sharing experience, or *wanting* to share an experience, is a powerful component in social communication (Buckley, 2003). The desire to share was motivated by auditory sensory stimulation and the physical opportunities offered through playful music making (Vid3play).

Playfulness is an important precursor to language development (Fisher, 1992). Music making invited the children to physically explore its (pre-confirmed) themes such as the frog jumping and crying "rebik". Vid6Frog reveals Ezran internalising the song via her frog as a means of play, acknowledgement and participation. Her resistant to vocalising could be attributed to a number of personal factors. However over the weeks, tiny snippets of emotive (facial) and physical (pointing, turning) movements emerged in conjunction to a song heard.

21.0 Building blocks of information

We can acknowledge parallels between deconstructing information then later building on blocks of information offered in bite sized chunks. Vygotsky's theory of social influences through learning in small groups sits well with this practice. Initially this group internalised the activity as a playful task. For example, Laura placed visuals of the subject around the room to denote directional locations (Vid6Walking). Resources such as the pop-up frog, puppet horse and rain-maker instruments were presented by Kirsty.

Multi-sensory memory recall helped the children to reproduce the activity vocally with the support of vocally directional comments by Laura ("Where is the horse now?"). As part of a SLT aim, this step-by-step approach to information building helped to increase the number of Information Carrying Words (ICW).

22.0 Scaffolding receptive language

The chosen songs were age-appropriate with clear thematic elements and non-complex syntactical structures. Weekly lessons used the same songs, images and sounds (of horses,

frogs etc.) and helped Laura and Kirsty to build a scaffold of specific questions to decipher the ICW level of each child. Initial comments and questions used included

Wk 1

(song first) “A frog!”

“Who is here? Kirsty is here!” (song)

Wk 2

(song first) “what is it? It’s a … Frog!”

“Where is Kirsty?” (song) (Vid5rebik)

Wk 5

(song first) All words sung. Silence Children utter “Rebik”

“Where is Kirsty?” Children utter “there”/“air” (song)

Wk 7

Children begin to sing whole song. Others do and cry “Rebik” (VidWholesong)

“Where is …” Child cries “I’m here!” (song)

23.0 Speech and literacy

Whilst the majority of the children had articulation and/or phonological difficulties that would have required specific and direct intervention on the part of a SLT, the musical activities at the very least promoted phonological awareness. This skill is critical for later speech, language and literacy acquisition. The songs provided opportunity for exposure to and use of syllable segmentation, rhyme, repetition and alliteration. Whilst the children may have been too young to explicitly process the perceptual features of the stimuli, early exposure to such structures is vital for them to later develop a metalinguistic understanding of (MHRLG).

23.1 Using a microphone

The outcome of this collaborative study was clearly demonstrated when the microphone was presented during week seven and eight. Each child was encouraged to create any sound and/or sing a familiar song. Young children are innately curious or compelled to ‘have a go’ (Trevarthen, 2009).

The music and speech 'bricklaying' or 'scaffolding' of activities, visuals, resources and gentle questioning over the previous lessons came to fruition in a remarkable display of spontaneous sound making and whole song patterns (Vid8Wholesong).

Typically we hear our own voices through bone conduction. The use of a microphone and amplification through speakers allowed the children to hear their own voices through air conduction. Microphones could provide a useful approach for SLTs to use during articulation and/or phonology therapy (MHCRLG). In this video example, we might consider the inaccuracy of Sam and Ezran's pronunciation. However each one sang the entire song, and the listeners understood what they were singing. This was a major milestone for the SLT, ME, both children and their parents.

24.0 Measuring collaborative outcomes

By the end of the eighth week we acknowledged that the majority of children were moving towards a 2 ICW level of comprehension using the combination of music and SLT applied questions (vid8dMy sound).

The success of a collaboration between SLTs and MEs is again highlighted in a fascinating clip of the group participating in "Walking in the rain". In Vid6Walking we note the following:

Visuals placed at strategic points in the room

* A question is asked by Laura. Sab vocally responds
* Sam recalls the song as triggered by the visual and begins to sings "wet wet wet".
* Sam begins to walk and sing, taking her sister's hand. Kirsty strums in harmony to the song but does not sing.
* Sajid helps to bring the song to life by playing the ukulele with Kirsty, and mouthing the words.
* The rest of the group begins to move around the space. Ezran moves in beat with her carer.
* Kirsty and Laura sing once the whole group is engaged.

24.1 Collaborative achievement

The collaboration between a SLT and ME yielded positive results in a limited time span. The outcomes provide exciting prospects regarding the role of music in children's early communication development. All but one of the children involved in this study made striking

improvements in their communication profiles. The remaining child showed positive signs of communicative development as confirmed by her carer when engaged with peers in her nursery setting:

Carer “Bye Ezran!”
Ezran “Bye!”

She was also observed talking in broken English with her peers. With this in mind we can reflect on her ability to communicate within her own environment. If nothing else, this study provided Ezran with a positive platform for vocabulary development.

25.0 Feedback

In brief, the head of SENCO reported back on comments made by parents of the participants, as well as observation of the children outside of this study. Positive feedback included

* More confidence in talking
* More attempts to interact vocally
* More fluency demonstrated in speaking phrases and sentences

26.0 Conclusion

Using music created an emotionally and socially appealing environment from which speech and language aims could be interwoven, and were achievable.

This study provided an irresistible context for speech, language, communication and it’s precursors to be acquired. The transformation from non-speaking to speaking in short sentences was a testimony to an effective collaboration between two skilful professions in a short space of time.

27.0 Where to now?

50% of children in some areas of the UK have impoverished language on school entry (BT, 2007). This figure is rising and does not include those children with English as an additional language. Law, Todd, Clark, Mroz, and Carr (2013) state ‘we have a joint responsibility to work together more effectively than ever before to ensure that all children have a fair

chance of succeeding at school and in life'. The costs to the NHS could be greatly alleviated by music and speech specialists working in collaboration.

Further reports suggest that technological gadgets are "to blame for a 70% leap in speech problems in 6 years" (Hunter, 2014).

27.1 Further research and collaboration

Future intervention in speech delay could be explored in greater measures by nurturing young children's speech and communicative as a result of carefully woven musically based speech activities, as demonstrated by this case study. A better system of enabling partnerships between independent and NHS specialists would allow more positive collaboration and results. Further research in this field urgently needs to be addressed to enable a more in-depth and robust model to be established, with appropriate resources and materials from which children with language delay can benefit.

The positive results from this study clearly demonstrates enrichment and joy each child gained from her experiences, in addition to being able to confidently communicate, and be understood. The milestones achieved by each child can be measured by the speed at which they responded, and the subsequent, economic viability of collaborative practice.

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Video clips (available on the Sound Connections Youtube channel)

Vid3c

Vid3f

Vid3g

Vid3play

Vid4fSurprise

Vid5Play

Vid5Rebik

Vid7tWiggle

Vid8dMysound

Vid8fPop

VidWholesong

Vid8x

Appendix 1

Rating Scale Key:
1 – Demonstrated **little skill** in this area/**maximal adult support** needed
2 – Demonstrates **emerging skill** in area/ **frequent/occasional adult support** needed
3 – Demonstrates **satisfactory level of skill/ minimal adult support**
4 – Demonstrates **good level of skill** with **independence**
5 – Demonstrates **full competency** of skill with **confidence and independence**

Music Session Outcomes **Date:**

Session No:

Child's Name:
Age:
Language(s):
Primary difficulty/difficulties:

Overall Comments:

Aspect of Communication	**Rating**	**Extra Comments**
Joint Attention - Attending to adult/stimulus? - Single channelled? - Flexible?	1 2 3	
Eye Contact - Looking at source of music/action? - Able to maintain? - Fleeting?	1 2 3	
Turn Taking - Able to turn take? - Identify own and/or peers turn?	1 2 3	
Social Interaction - Egocentric? - Initiating interaction? - Motivated to communicate?	1 2 3	
Play - Exploration of music/movement? - Manipulating instruments? - Different types of play (if applicable)?	1 2 3	
Receptive Language - General awareness? - Understanding of thematic vocabulary?	1 2 3	
Expressive Language - Echolalia? - Spontaneous? - Thematic vocabulary? - Mean length utterances?	1 2 3	
Speech/Vocalisation - Linguistic/non sounds? - Intelligible? - Speech sound inventory?	1 2 3	

January – March 2014

Chris Wade
Notes from LEYMN language case study

** What is the role of the speech therapy in children with language delay?*
To assess the child using a mixture of formal or informal assessments; clinical observations and parental views.

To accurately diagnose the child's impairments in Speech, Language or Communication skills.

To formulate a therapy plan based on Evidence Based Practise.

To provide direct and/or indirect Speech & Language Therapy sessions in a range of settings to support generalisation.

To build on the child's strengths and develop the child's weaknesses.

** How can successful outcomes be measured?*

Outcomes can be measured through accurate clinical assessment at the point of referral to establish a baseline of the child's areas of strength and challenges.

Using a mixture of formal or informal assessments; clinical observations and parental views during Speech & Language Therapy sessions.

Accurately recoding speech, language and communication samples during Speech & Language Therapy sessions.

Re-assessing the child after the Speech & Language Therapy 'block' of sessions is complete.

** What measures if any, are or have been taken by families/external providers (school/nursery/other specialists) to support speech acquisition with regular speech therapy?*

Speech & Language Therapy is most effective when the team around the child are aware and active in the delivery of strategies and activities devised by the Speech & Language Therapist.

By integrating a child's Speech & Language Therapy into their Individual Education Plan at nursery/school.

** At what point does the role of the speech therapist end?*

The Speech & Language Therapist is guided by the team working with the child. As such parental and educational views will be sought regarding the child's strengths and challenges. The child will be discharged by the Speech & Language Therapist when their Speech, Language and Communication skills fall in line with the average range expected for a child of their developmental age.

LEMYN Language case study
Notes from Laura Gergees, speech and language therapist
January – March 2014

I think the songs were most appropriate and there would've been no reason to disagree with them from an SLT perspective. The song lyrics (or vocabulary from our perspective) were appropriate in terms of their lack of complexity, and the animal themes were also relevant as children of their age are generally expected to know about different animals, their noises, their habitats and their associated action (i.e. fish swim, rabbit jumps) and the songs taught them just that - above all they learned this whilst having fun!

The songs also offered us as SLTs a chance to target receptive and expressive use of verbs, for example when I came round with the choices of what they wanted the frog to do, or as I recall when we spontaneously asked them what action the horse should do.

From an SLT perspective the songs also allowed me to exploit their aims with regards to following an instruction with 2 information carrying words (ICW) - i.e. “where shall we go?” during the horse song - which they were all unable to do apart from Sajid; highlighting the need for such thing to be targeted.

So my answer is the songs were highly relevant in terms of themes, lyrics, and they gave opportunity they gave to exploit their SLT aims with ease.

THE MUSIC HOUSE FOR CHILDREN

PIANO ★ GUITAR ★ VIOLIN ★ DRUMS ★ PERCUSSION ★ TRUMPET ★ CELLO
UKULELE ★ SINGING ★ MUSIC FOR BABIES ★ MUSIC FOR UNDER FIVES
INSTRUMENTAL LESSONS ★ HOME TUITION ★ WORKSHOPS ★ CONCERTS

November 2013

Music making for young children with signs language delay

The Music House for Children would like to invite your child to participate in a project involving a music teacher and speech and language therapist to support language development.

Working closely with the two skilled professionals, we will offer a small group of children weekly music lessons that will have a focus on encouraging sound making, singing and learning new words and musical activities. This music project will start from January 14th and run for the duration of the spring term. We hope that parents or carers will accompany and participate so as to learn musical activities that can be enjoyed at home.

A researcher from The Music House for Children will be present to take notes and video snippets, so that we can see the positive impact that music can have on language development. With the results we hope we can then secure funds for ongoing music lessons for children with language delay.

If you are happy for your child to participate, and to have video snippets and observation notes taken please sign your agreement at the foot of this letter. Please be assured that all names will be changed for the final report.

This will be presented to our funders, London Early Years Music Network (LEYMN) as well as the SENCO team. All practitioners will be fully CRB'd. The project co-ordinators will work in collaboration with the SENCO team at Randolph Beresford Children's Centre.

If you have any questions please get in touch with Emma Hutchinson, head of the music project on 020 8932 2652 or email emma@musichouseforchildren.co.uk or Sue Friel, head of SENCO on…

We look forward to seeing you next term.

Best wishes

I consent to my child participating in the music project with a music educator and speech/language therapist. I consent to a researcher taking notes and video footage for the purpose of reporting on the positive impacts that music could have on my child's language development.

Yours sincerely

CHILD'S NAME
PARENT/GUARDIAN'S NAME (PLEASE PRINT)