

Liquid Vibrations: Project Report

Including Bridge Special School

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Introduction

Liquid Vibrations is an organization that provides underwater music combined with aquatic body therapy for children and adults with special needs at varying levels of ability. Sessions are provided in which music is played through speakers located in the pool, underwater. The sound can be fully heard when a child's ears are immersed in the water and the vibrations of the sound can be felt in the body as well, if he or she is sufficiently near to the speakers. One theory behind these sessions is that the sound is perceived to be coming from within the body as well as being heard externally. As well as the element of sound, movement, aided by a Watsu specialist, is added to help the children relax, move more easily and place their head in the water, as many of the children attending the sessions may have physical limitations.

Watsu

Watsu is an aquatic therapy technique that has been explored for its use in various health settings and populations for purposes such as to increase range of motion, muscle relaxation, muscle spasm, decrease spasticity and decrease pain. (Leite et al., 2013; Chon et al. 2009, Watsu around the world, n.d). Schoedinger describes Watsu as follows:

‘Watsu is a passive form of aquatic bodywork/therapy that supports and gently moves a person through warm water in graceful, fluid movements. Watsu promotes a deep state of relaxation with dramatic changes in the autonomic nervous system. Through quieting the sympathetic and enhancing the parasympathetic nervous systems, Watsu has profound effects on the neuromuscular system. ‘(n.d., para 1)

NB there is no research to verify the claims above.

Music

The music and sounds chosen for the hydrotherapy sessions centered around three concepts:

TONAL/FAMILIAR – Music that has harmonious tonal progressions and/or steady rhythms. It is believed that this may serve to relax the participants into the new sensation and increase their interaction with each other and individual pleasure.

ABSTRACT MUSIC – characterised by its use of unconventional sounds, flexible structure and its focus on sonic texture. Such an approach further places the participants within, and as part of the listening space.

NARRATIVE SOUNDS - (animals, marine animals, environments, field recordings, sound effects, text) are sonic signifiers, sound objects that, much like a photograph, are a reproduction of the original.

The music was composed of similar sounds but in different mixes with each of the sessions. The sequence of the types of music was a progression of 10minutes for each starting from Tonal through to Narrative. This sequence was the same each session.

Purpose of Sessions

Liquid Vibrations (www.liquidvibrations.org.uk) describes the purpose and benefits for children and adults as being educational, physical and emotional. Benefits are described as follows:

1) Educational

The listening sessions create interactive listening environments, which provide a basis for understanding of the environment (places, people, animals, whales, events taking place). There has to be a cognitive appreciation and understanding of the musical and sound environment for the subject to participate in a meaningful way in a musical or any other form of expression. Listening to music and sounds is also the first stage of music improvisation. So far we have found evidence of improvement in listening and paying attention and increased curiosity, even with children who have difficulty in vocalisation.

2) Physical

Freedom in the water for children who are restricted in their movements is already appreciated by special schools. The sessions combine deep listening with movement guidance in the Watsu hydrotherapy technique. Watsu helps decrease muscle tension and increase the range of motion

3) Emotional

Listening to music in water can be a profoundly intimate experience, which has emotional resonance. There is tremendous excitement and pleasure in hearing sounds, which can be heard and felt in the bones.

Previous Liquid Vibrations Projects

Liquid Vibrations has run two previous projects. One took place in a special school in 2011 in Canterbury, Kent and the second took place in a special school in Milton Keynes, Redway School. The project at Redway School took place over six sessions, including 'dry' sessions in the classroom that were related to the 'wet' sessions in the pool. Sessions took place over a six-week period and included eight pupils with severe and complex learning difficulties, all of whom were wheelchair users. The report written suggested that the sessions were enjoyable and relaxing for the children, observations noted increased listening skills of the children and a freedom of movement within the water with the addition of the Watsu technique. Recommendations were made for a longer term project; to include children who may not be as confident in the water to assess whether sound and movement has any impact; a suggestion for trialing the sessions with more 'able' participants was given as well as children with severe autism and challenging behavior.

Current Project

Participants

The current project took place in a special school (primary) in north London catering for children with autism and/or severe learning difficulties or profound and multiple learning difficulties. Six children attended sessions, although numbers varied due to absence on particular dates. In contrast to the previous Liquid Vibrations project none of the children in the current project was a wheelchair user. The children were chosen by school staff, who had undertaken the Watsu training, to participate in the project. Within the pool there was one school staff member present for approximately two children as well as the Watsu specialist and practitioner from Liquid Vibrations. Although six children attended the sessions, for the purposes of this report a focus was placed on observing three children, who were given consent and attended consistently, in order to attempt more in depth observations. These children ranged in

age from eight to twelve. Names will be changed in the present report to maintain confidentiality.

Method

Seven sessions over seven weeks, with a break for half term, took place in the school pool and were the last activity on Friday afternoon before the children were to go home. All sessions included work with a Watsu specialist. However the first and sixth sessions did not include music. This project did not include 'dry' sessions outside of the pool as was done previously. The teachers present were given training in the Watsu technique prior to the project beginning. The sessions ran for approximately forty-five minutes. Music was played (as described above) continuously through speakers placed within the pool. A Watsu specialist was present to work with the children individually. The sessions were run with an unstructured format so that the children were free to move in the water as they chose, although they were encouraged (verbally, physically, through gesture) to float on their backs and listen to the music.

Observations were made during sessions and through the use of video recordings, which were then reviewed to note any responses of the children within sessions. The teachers were asked about the children's responses at the end of each session and final questionnaires were given at the conclusion of the project to acquire feedback. The *Sounds of Intent* framework of musical development was used to inform observations and review/analysis of video (Figure 1).

The *Sounds of Intent* framework of musical development includes all ranges of ability from profound and multiple learning difficulties (PMLD) to those with autism, with or without exceptional musical skill. It is a culmination of over ten years of research and is based on hundreds of observations of children engaged in music, 'typical' early years musical development and 'zygonic' theory, which seeks to explain how music makes sense to us all. The framework covers six levels of musical development within three domains, 'reactive' (listening and responding to sounds), 'proactive' (causing, creating and controlling sounds) and 'interactive' (participation in the context of others) The framework is embedded in a website (www.soundsofintent.org) and is used by practitioners throughout the UK to assess their children musically (Ockelford, 2009; Vogiatzoglou et al., 2011; Welch et al., 2010).



Figure 1 *Sounds of Intent* Framework of Musical Development

The Liquid Vibrations sessions are multisensory in nature, for example, hearing sound and music, the feel of the water, the tactile quality of other's touch during the practice of Watsu and movement. Therefore, observations were made in reference to the framework in terms of music and sound but also in terms of other sensory experiences during the session, particularly movement in this case due to it being a primary element observed during each session.

Summary of Observations

All the children attending the sessions also attend a swimming lesson once a week and were said to enjoy being in the water. One child observed is less confident in the water but is described as enjoying being in the pool when held by an adult. As stated previously, all of the children attending were not wheelchair users as in previous Liquid Vibrations projects. Therefore, the children were independent physically and could move freely in the water if they chose. It was noted by teachers that the children attend music sessions as well, are active, for example by singing and playing instruments, and enjoy taking part. Music was also described as being used symbolically with some of the children, for example, to indicate the structure of the day and activities. Further information will be discussed in terms of the three children observed individually.

Child 1

Lucy attended seven Liquid Vibrations sessions consistently. She has experience with and enjoys being in the water, having swimming sessions weekly in school. Lucy communicates through simple speech, saying words in context, and also uses body language and facial expression to convey feelings. Activities she is said to enjoy that may be relevant to sessions include imitating others (actions, words), playing with adults in one to one interactions, swimming, water play, and music. She is described as responding well to structured routines.

From the first session Lucy adapted well to Watsu movement within the water, working both with Steve (Watsu specialist) and her teachers. Within sessions she often combined periods of playful activity, jumping up and down in the water, dunking underneath, swimming, with periods of floating and gentle movement with an adult. During Watsu she was often calm, floating on her back, allowing adults to move her fluidly throughout the pool. Observations made were such as the following from session two:

‘Steve (Watsu specialist) is working with Lucy and her teacher. A float is placed under Lucy’s legs and her head is held. She smiles as she floats in the water on her back, her head back as well, and is still. Steve gently moves Lucy in the water in different directions

using the space of the pool; she is quiet and feels the water with her hands. Steve explains what he is doing for the teacher as well. As the teacher takes over, holding Lucy's head she looks up at her and smiles. This is the beginning of the session, there is no music playing until about five minutes into this interaction. The video has captured Lucy maintaining floating calmly on her back for nine minutes.'

Lucy adapted to the concept of floating in the water and took part in this movement from the first session (no music) to the last session. During these interactions she often appeared calm, sometimes closing her eyes, sometimes smiling, she allowed her body to relax, moving fluidly in the water, and was a willing participant. When she appeared to have enough she would move to playing in the water on her own or with another adult. Lucy did respond consistently to the movement from session to session, suggesting it was a positive experience for her and her teacher noted that she was surprised to see this stating:

'We started earlier and she was very keen to relax but then about halfway she started to play around and be more active...at some point she wanted to switch...do more of her own thing. I was quite surprised actually that just the first session she was already kind of lying on her back and relaxing. Knowing that she is quite energetic...She goes to swimming lessons in a larger pool. They also have a swimming lesson. Most of the time it is a swimming lesson and at the end it is about 5 minutes of playtime. In those sessions she loves water, she loves swimming. She is active in those sessions...that's why I'm surprised she is able to relax. I think as well that she also likes to follow...'

In terms of music, Lucy exhibited an awareness of the music. In one session putting her head into the water and saying 'music'. Her teacher also stated that Lucy 'went up to the speakers and she was saying she was 'listening with her tummy', suggesting she could feel the vibrations. Her teacher commented on this moment further:

‘at some point she said that it hurts. I think it’s just the feeling, it didn’t hurt obviously, but the sensation was too much maybe for her because she did say that so she moved away. And I think she knows, she is aware of the music. So she’ll put her head on the water and she’ll listen to it...’

This last statement suggests consideration may be placed on whether or not the vibrations felt in the water are positive for some children but may be less so for others.

Lucy is a girl who is aware and active, who enjoys being in the water and enjoys music. Whether the specific combination of music and movement in the water had an impact is difficult to ascertain and would require further consistent observation. For example, during the last session Lucy leaned her head into the water, and floated independently on her back, this occurring for about twenty seconds. Repeated occurrences of this would be needed in order to suggest with more clarity that she was initiating this behaviour in order to listen independently. Lucy responded positively to Watsu in sessions that did not include music and to those that did. The use of music was receptive in nature, for the children to listen to rather than control on their own or use as a means of interaction with others. Observing Lucy’s positive response to movement within the water brings up suggestions for how music might enhance and work to support this. For example, can the movement be supported by the music in terms of matching the elements of tempo and rhythm, might there be a way for Lucy’s movement to control the sound that she hears? Overall, Lucy appeared to have a positive response to the Watsu technique used, an encouraging starting point for exploring how this combined with music within hydrotherapy could support and encourage her development and well-being.

Child 2

John also attended all sessions consistently. He is noted by his teachers to enjoy swimming and has confidence in the water. Descriptions of John show him to have musical abilities, especially in his memory for music and in singing. He is said to vocalize and enjoy having sounds repeated back to him, uses song cues to help him know what is happening next, enjoys humming and singing tunes and is able to quickly repeat a song that is sung to him. He stops to listen when an adult copies the

song. John is described as having an ‘amazing musical memory’ with the ability to quickly repeat a song which is sung directly to him or which he has heard around him.

Throughout sessions John was quite active, moving about, vocalizing often and interacting with adults by approaching them, sometimes putting his arms around them, smiling. His vocalisations were extensive, often repeating patterns using his voice and repeating short melodies/musical motifs. It was difficult within these sessions to observe whether John’s vocalisations were in response to the music in the water. His vocalization and singing took place in all sessions, those with music and those without. It was also not possible to hear the music clearly, within video data for example, to notate if these sounds were related to those heard. Given John’s musical abilities, it would be interesting to explore further, how a child might be encouraged to use such skills to engage within sessions, either independently or with others.

In terms of Watsu, there were moments when John allowed himself to be held by either the Watsu specialist or his teacher. For example, observations such as the following were made:

‘Stephanie holds John in a cradle like position, supporting him on his back in the water, gently swaying from side to side. He looks at her throughout, vocalizing. He gets up but approaches her again and allows her to hold him as they sway back and forth gently in the same position.’

John appeared to enjoy the interactions through movement that took place, he appeared to tolerate the movement for brief periods, before letting go, but then approached the practitioner or teacher again for the movement to be repeated. His overall responses seemed to alternate between being active in the pool (jumping, vocalizing, exploring the space) to moments of calm when held by an adult.

After one session it was noted in an interview when asked about the session overall:

‘He was very active when he first got in. I don’t know how he was last week because I wasn’t with him. He took quite a long time to settle down but he did, found his speakers on his own at the end and then he started to put his head under the water. And just with repeated offering him, modeling, what we were going to do, putting

on different floats eventually he got, he wanted to do it and then he couldn't stop. ‘

When asked about any responses to the music:

‘I think he was responding to the music, because while he put his head under the water then he would relax his body and allow me to support him. It kind of motivated him I suppose. He knew what we were going to be doing...’

However in contrast to this the music appeared to possibly have an opposite effect within the last session. According to the interviewee when asked about his responses overall:

‘He's been quite stressed today; he didn't really seem to want to join in. We were just discussing, maybe it was the sound. When he did lie down on his back with his head in he would put his hand over his ear on Stephanie's (swimming practitioner) shoulder. He spent a lot of time over there (steps of the pool) not really wanting to come in but he could be a little bit unsettled anyway.’

This highlights that many factors are taking place within a session and consistency in observations and responses is important in order to understand the nature of a child's reactions. John had been unsettled earlier in the day so this may have had an effect. However, understanding any negative responses is as important as those that are positive in order to inform future sessions and to inform what children are best suited for the work. If more sessions were to take place, it would be beneficial to note consistency in signs of disengagement or of further engagement and interaction.

John's moments of stillness in earlier sessions might be explored further in terms of whether the Watsu technique may be used for a calming effect. It was noted in his profile that relaxing music helped to calm him as well. Further sessions might explore this possibility. As stated previously, sessions might also explore how to support and work with John's musical abilities, demonstrated consistently in his vocalizing and singing. His keenness to interact with adults might also be taken into

consideration, in terms of how the movement and music might be used in an interactive as well as receptive context.

Child 3

Michael also attended all seven sessions. He is described as enjoying pool sessions when held by an adult but is less confident in the water. This could be observed within Liquid Vibration sessions; however, his confidence did seem to grow over time. Furthermore, observations noted active participation through and responses to movement in the water. For example in the first session (no music) Michael was observed at the edge of the pool creating patterns with his hands in the water, his teacher imitating these patterns, a back and forth interaction taking place.

Within sessions Michael's confidence in the water appeared to increase. This was noted by his grip loosening when he held on to his teachers. He could be observed to hold onto his teacher with his arms around her neck, his legs also wrapped around for support. During these moments he was often moved gently in the water by his teacher, swaying back and forth, gently bouncing up and down. Within session three, observations noted a progression in his independence, which led to working with the Watsu practitioner rather than his teacher.

‘Michael is standing in the water on his own, holding on to Steve’s hand only. He bounces up and down and Steve mirrors his movement. He holds onto Steve’s right arm, as Steve, also supporting him with his left arm, swings his body around in circular movements. He then holds on to both of Steve arms facing him but with distance between them, (not holding on to his neck). He swings around and around in the water.’

Michael was observed within sessions to also create patterns through movement in the water, in session five, this movement becoming interactive:

‘As Michael’s teacher holds him he faces away from her and sways back and forth. He holds his arm out creating patterns in the water with his hand along with the swaying movement, bringing his arm in and out, in and out. Steve (Watsu specialist) faces him and mirrors,

imitating the swaying of his body and the motion with his arm, copying the patterns Michael creates in the water. Steve then moves his arm in the opposite direction so their hands touch when they reach the middle point of movement, Michael sometimes smiling in response to this. Michael's movement has been moved into an interaction and as the interaction continues Michael begins to gently push Steve's hand for him, so his arm will go back and forth in the water. '

From the observations it is difficult to ascertain if Michael's movement occurs in relation to the music present, again as movement occurred in both sessions with and without music. Future work might explore if the music might act as further support for engagement in movement. The movements observed either when being swung gently by a teacher, or when creating patterns with his hands independently, often were patterned and rhythmic rather than being random (both in sessions with and without music). Might music mirror this movement, might he be able to control the music through his movement in the water?

It is not possible to determine which element of the sessions had an influence on Michael's responses, as there were various factors such as the music, movement, and varying teachers working with Michael within sessions over time. However, Michael's growing confidence in the water was a positive outcome that occurred during the project. By the last session, he allowed his teacher to only gently support him as he floated on his back with his head held back as well touching the water. His affinity for movement and interaction through movement might also be further avenues to explore.

Discussion

In terms of the *Sounds of Intent* framework of musical development, various elements of the model could be used to inform the observations and future work. The children within the session, through observations and through descriptive information given by teachers, imply Levels 3 – 5 of the framework (refer to Figure 1). Level three concerns the ability to respond to, create and interact through patterns in sound. Patterns in sound might be translated into movement within these sessions as well. For example, Michael's affinity for creating patterns in the water with his

hands, imitative interactions with these patterns and his positive response to gentle, steady, repetitive and rhythmic movement. How would the children respond to discernible patterns in the music heard and felt in the water, would this support and enhance their creative use of movement?

Level four of the framework deals with groups or chunks of music and the relationship between them. John exhibited this, as he often vocalized and sang small motifs of music, repeating them, varying them. It is also known that John has the ability to hear and sing back melodies and songs that he hears, implying level five of the framework in which children respond to, and create whole pieces of music on their own or with others. Could such sessions build upon John's musical abilities using music that he can imitate? In order to understand if there is a difference to responses within and outside the water, responses to the same music used in 'dry' sessions might be beneficial, as done in previous projects. It is also known that John calms to relaxing music, this might be further explored in terms of his responses to sound in the water. Does the music, which calms him outside the water, have the same effect within the pool, would there be any differences in his responses?

Levels three through five of the framework also incorporate symbolic use of sound and music, tying in with one of Liquid Vibration's elements of providing a narrative through the sounds that are used. Lucy could be seen to take part in symbolic play during some of the sessions, as she related being in the water to fish, sometimes accompanying this with movements using her hands. Do children attending sessions have an understanding of symbolic associations and narrative, if they do how could the children be guided to further engage in the narrative through the elements present, such as sound and movement?

In terms of research there are many factors at play within sessions. This includes the music provided, the tactile quality of the water, the movement and sensation of the body within the water, the external sounds heard (children's vocalisations, adults and children talking, the echo of the pool room). It may be difficult to tease out the various elements but perhaps various steps may be taken. This may include, playing the music used in the water outside the water and noting responses, alternating between silence and sound within the water sessions, simplifying the sound in order to determine responses to specific sounds heard, adding a proactive or interactive element in which the sound can be controlled by children to determine their awareness and engagement with the sound in particular.

End of project questionnaires also provided insight into considerations for future work with children. These included longer term projects, smaller groups of children, one adult for each child present, providing more structure within the sessions, providing more guidance for teachers in the pool, allowing children time to become used to the environment of the sessions and the music before increasing demand on the children and teachers. Supportive comments were noted in terms of applying some of the movement techniques in school swimming sessions as well, in observing that some children were able to relax, and in one case enhancing the adult child relationship. (See final questionnaires in Appendix). Future work might make use of collaborating with and gaining information and feedback from a music teacher or specialist who works regularly with the children as well; this was not possible during the current project as a specialist was not available.

Overall, positive responses were seen by the children i.e. creative use of movement, responses of relaxation and improved confidence in the water. It is understood that half a term is insufficient for more definitive statements to be made. Therefore, the current analysis of the project may act as a framework for suggesting further research, over a longer period of time that explores in more depth how children engage with sound and music and the varying senses that are at play within a Liquid Vibrations session.

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Appendix

Sessional Interviews with teachers

Child 1

Session 2

1. What general responses did you notice during today's session?

We started earlier and she was very keen to relax but then about halfway she started to play around and be more active...at some point she wanted to switch...do more of her own thing. I was quite surprised actually that just the first session she was already kind of lying on her back and relaxing. Knowing that she is quite energetic...

She goes to swimming lessons in a larger pool. They also have a swimming lesson. Most of the time it is a swimming lesson and at the end it is about 5 minutes of playtime. In those sessions she loves water, she loves swimming. She is active in those sessions...that's why I'm surprised she is able to relax. I think as well that she also likes to follow...

2. Any response to the music?

I'm not sure...I don't think I have enough experience to actually pick up...and I'm looking more that she is able to relax and follow.

Session 3

1. What general responses did you notice from today's session overall?

The child was really liking the music. I could see that she was really knowing that there is music and she liked that.

2. What did she do to let you know that she liked the music?

She was saying music and she put her head in the water and at some point wanted me to do the same. She wanted me to put the float on my legs and she wanted to hold my head in a way so that I would do the same that we are offering to her.

3. Anything specific in terms of vocalisation, verbalising?

Just that she said music so she acknowledged that there is music.

Session 4

1. What general responses did you notice during today's session?

She wants and she likes to hear the music under the water. Do you know what she's doing. As far as I know she keeps going close to the speaker to feel in her tummy the music, the vibrations. But she doesn't want to be relaxed because in the last few sessions she lay down with her teacher but I'm not her teacher so she doesn't know me, that's why..she doesn't want me to touch her. I think she's very reactive.

2. Anything in terms of her interacting with anyone today?

Interacting with 'her' (Adele) with him (Steve), because she knows him he was the only person who could relax her in the pool.

Session 5

1. What general responses did you notice during today's session?

She's very responsive, she's very responsive. She's following. She actually went up to the speakers and she was saying she was listening with her tummy. And at some point she said that it hurts. I think it's just the feeling, it didn't hurt obviously, but the sensation was too much maybe for her because She did say that so she moved away. And I think she knows, she is aware of the music. So she'll put her head on the water and she'll listen to...

2. And with regards to her engagement with others in the pool ?

She's quite busy with everything going that is going on so she wanted to talk to everybody and you know, play but obviously everybody is busy with what they are doing so she didn't interact too much. But you know now you can see she just wants to interact...you know she is aware of everybody and what is going on .

3. And in regards to the continuity with all the sessions since the beginning? What have you found?

I think when she, like with you, you know she was really relaxed so I think she learned that this is what she was supposed to do... just like really relax, really let go so at the beginning when I didn't know and she didn't know what we were going to do but now it's like...at the moment when she just kind of engaged with the activity she just forgot so you know you can see that she learned over the weeks what it is about and yeah, she engages quite well I would say.

Session 6

1. What general responses did you notice during today's session

I think it was good because she is used to it and she is used to me. She didn't used to work with me but now she is used to.

2. Any responses to the music?

She asked me to lie down and she asked us to do the movement with her in the water...

3. Did the child interact with you or anyone else during today's session?

She interacts with her (Adele) and with me because she knows I am working with her today so that's good. Two weeks before she didn't want to work with me and now after two sessions, now she knows me more and so she works with me.

4. Anything in terms of verbalisations/vocalisations today that you noticed?

No, no I didn't notice...

Child 2

Session 2

1. What general responses did you notice during today's session?

He was very active when he first got in. I don't know how he was last week because I wasn't with him. He took quite a long time to settle down but he did, found his speakers on his own at the end and then he started to put his head under the water. And just with repeated offering him, modeling, what we were going to do, putting on different floats eventually he got, he wanted to do it and then he couldn't stop.

2. Any responses in terms of the music?

I think he was responding to the music, because while he put his head under the water then he would relax his body and allow me to support him. It kind of motivated him I suppose. He knew what we were going to be doing...

3. How does he usually respond in the water, in general?

He is usually quite active, jumping around. He can float on his stomach, he is more used to floating on his stomach. He was doing that just near the end, with his face in.

Session 3

1. What responses did you notice from today's session overall?

He's gone back to what he was doing last week, which is good. I was wondering if he would remember. It took most of the last session to get his head under...this time he's gone much more quickly into it. So he was quite willing to do it...to lie back, put the float under his knees and but he is just still hesitant once he gets his right back he sort of jumps up again but then he keeps coming back. I'm trying to get him over to the steps because he can float independently on his front over there.

2. Any responses to the music?

His responses have been the same, puts his head in, come back...he'll jump into your

arms. He's jumped into her (Adele) arms as well. He's being quite sociable about it.

3. Anything in the session today different from his usual way of vocalizing?

No

Session 4

1. What general responses did you notice during today's session

He was a little bit upset coming into the session so he kind of allowed himself to relax into my arms for about ten seconds and then he would get back up again, which was OK and there wasn't really an extended period of time where he let himself relax. Overall there was progress, we were able to go back in the water a few times

2. Any responses to the music?

Not today, I'm not exactly sure what was happening today

Session 6

1. What general responses did you notice during today's session?

He had some real moments of being calm, shorter than last week because I think it's a bit louder and there are more people. He did have some moments where he allowed me to hold him in the water and allowed this other lady (swimming instructor) to hold him in the water.

2. Did the child interact with you or anyone else during today's session?

He approached this new woman, which was really nice because he doesn't always approach new people but he went straight up to her and kind of jumped right into her arms.

3. Did the child vocalise during today's sessions? Were these usual for the child or different from what occurs NOT in the water?

Kind of the same, as they usually are

Session 7

1. What responses did you notice today's session overall?

He's been quite stressed today, he didn't really seem to want to join in. We were just discussing, maybe it was the sound. When he did lie down on his back with his head in he would put his hand over his ear on Stephanie's (swimming practitioner) shoulder. He spent a lot of time over there (steps of the pool) not really wanting to come in but he could be a little bit unsettled anyway. Yesterday he was quite unsettled as well...so it could be something else

2. Did you notice anything in terms of his vocalisations?

I could tell from his vocalisations that he was the same.... his tone is different...a bit unsettled and a little stressed

Child 3

Session 3

1. What general responses did you note during today's session

You saw him the last two sessions. He was really tightly holding but now he's much looser and moving around in the water independently too. He put his head in and choosing to put his head back as well, which you know he's not done he's quite nervous, nervous in the water. And he's put his face in a few times too, which I think shocked him but then he did choose to do it again.

1a) Interviewer 2 – What general responses did you notice from today's session?

He's relaxed his grips around me, and he's more confident at putting his head back in the water. His ears have gone in a few times and he's responded with vocalisations and then come up and then relaxed to come back down again.

2. Any responses to the music during today's session?

I think that's why he is relaxing down and tolerating. He's also quite sensitive as well...I know last time he seemed to be very aware of the vibrations and I think that's what he was nervous because they are quite strong over there (pointing to speakers). He was quite nervous...but in a normal swimming session he wouldn't normally move around with such confidence and would have never let go of an adult. I'm really surprised with him today. He's still does like to be this way, facing you but he is much more relaxed.

2a) Interviewer 2: Any responses to the music during today's session?

When his ears went in he tolerated it for about twenty seconds and then came back up and vocalised quite excitedly.

3. Anything in terms of his vocalisations that you noticed?

His vocalisations seem to be in response to the music. So when at the start of the session he put his ears in for a second and then he vocalised. You could hear the quite high pitch, kind of like when he is quite excited and quite stimulated he makes those noises. So I think that was him kind of working it out and responding to that. Not that he's realised what it is, he's lying back for longer and he still looks a little bit nervous but...

4. What about the deep vocalisations? Is that something he normally does?

Yes, I think he is kind of clearing his...he gets that quite a lot, but that was after he went under with his face so I think he was a bit taken aback too

5. Did he interact with any other children?

No. He's been watching the others a lot though, he's been watching the others a lot.

Session 4

1. What general responses did you notice during today's session?

I swim with him on Mondays in the normal swimming session and I noticed a difference in the swimming session I do with him on a Monday because he doesn't

like to come in the water and this is with an adult and he's starting to get a lot more relaxed so, yes, on a Monday. Because I don't know what he's normally like in here, last week he's supposed to have been fantastic. But I can only see when I've been swimming with him in our normal session.

2. Any responses to the music?

Not a lot, but he's been a bit stressed very tense so he's been holding on to me, as you can see he's just starting to relax. He's not having to hold on to me so he's letting his fingers feel the water more so he's starting to..

3. Did you notice anything him terms of his vocalisations during the session?

He's just sort of let out a scream, that's a normal thing and a giggle. he's been laughing. The last couple of minutes he's completely changed...he's not so tense and he's starting to loosen up and he was giggling at one point.

Session 5

1. Do you mind just telling me a little bit about how you found the session with him today?

At first maybe he seemed very tense, it felt like but after about twenty minute, twenty five minutes he slowly relaxed by releasing one arm but every time I move he became more tense but now he's a lot more relaxed. He's not attached to my body apart from legs at the bottom and he's feeling the water. He seems happy. But apparently I'm the third person that he's had so maybe that leads towards anxiety but he seems ok now.

2. In terms of listening to the sounds, the music underwater?

I don't think he's listened too much. He's been more worried about me, holding on to me.

3. And what about him engaging with the other kids?

No I wouldn't way he was engaging at all with the others, probably if they splash him he'll notice them a bit more but otherwise he's not bothered about the other children

4. Can you feel him following the sound in some way with the hands, or through the vibration does he react?

The hands he's going with the water and his own movement and his feet loosened up, it feels like he's going with it nicely but I think we need more sessions.

5. In terms of the actual Watsu movements have you been able to apply a little bit?

A little bit just through the swaying, trying to go with whatever arm he's moving, going in that direction. But I think it's helped doing the Watsu movement rather than just standing here trying to coax him in.

Session 6

1. What general responses did you notice during today's session

Not as keen to put his head back, so his head is a lot more upright without the music. But he was quicker to come into the water with me today and has a looser grip, his legs are more free. He does still need breaks of being close to me and feeling pressure, then he relaxes..

2. Did the child vocalise during today's sessions?

There didn't seem to be as many as when there was music. (Vocalisations) are about the same as normal, he tends to do it when he is quite excited...

3. Did the child interact with you or anyone else during today's session?

As he would on land I think...If he can when we were on land he would first come from the front and wrap himself around, with the rocking and spinning.

4. The rocking and spinning is something he does outside of the water as well?

He does, he loves to spin and to rock as well...

Session 7

1. What general responses did you notice during today's session

Today was the best session I've done with him. Normally I'd get in with him clamped to my body. She (Stephanie) told me to just sit there longer than I normally would and let him relax with his feet grounded...you can see for yourself how good he was. He was really relaxed, he's off now on his own and even at the end I managed to get him to lay (with his head) on my shoulder and float for a few seconds and I've not had that with him before, so he's done really well in this session.

2. Did you notice any responses to the sound/music during today's session?

I know I can feel it in my lower body especially, so I'm sure he can. His facial expression changed when we went over towards the speakers. At first he was withdrawing so I'm assuming he could feel something but he was a little unsure. But I think he's enjoyed it today.

3. Anything in terms of his vocalisations?

He makes those noises a lot in class anyway. They can be anxiety or excitement, same sounds for both

Liquid Vibrations End of Project Questionnaire

24th February 2014

Many thanks for taking part in the Liquid Vibration sessions during the past few months. We greatly appreciate the time you have given and hope you have found the project worthwhile. A valuable piece of the project would be to gather input on your experience and we hope you will find the time to complete the following questions in order to help inform our final report and future projects. Your responses will be anonymous.

Please return the form to avoyajolu@gmail.com by Friday 13th March 2014.

1. *Now that the project is finished what are you most pleased with in terms of the child's experience?*

Being exposed to different sensations such as the underwater music

2. *What has the child experienced or achieved? Achieved increased confidence in the water.* Expereinced quality 1-1 time with a familiar adult

3. *What are you most surprised by?* Independence in the water when trying to seek out vibrations from the sound

4. *Have other people noticed any changes after the sessions or more generally, or are things much as usual?* Generally the child is increasing their interactions with adults and other children, this is due to many factors.

5. *What advice would you share with others about involving their students in such a project?* Should have 1-1 for every child in the pool. Be very clear about permission for filming and recording. Allow the student to go to the pool with a familiar adult they trust.

6. *Has anything changed in the way you work with the child after experiencing this project?* We try to recreate some of the movements in our own swimming sessions to increase their body awareness

7. *Do you have any advice for us in terms of setting up similar projects at other schools?*

Perhaps offer more guidance in the pool. Share expectations with staff/model more for staff how you want them to work with the children in the water. Be very clear about the safety procedures for the session.

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1. Now that the project is finished what are you most pleased with in terms of the child's experience?

My student has become more trusting and more confident in the water. He now allows an adult to move him and also trusts enough to relax and place his head back into the water, even if only for 10-20 seconds at a time.

2. What has the child experienced or achieved?

The student has become more trusting and confident in the water. He is willing to let an adult move him the water and relaxes enough to move his head and ears back into the water.

3. What are you most surprised by?

Same as above; I was uncertain that the student would be able to relax in the pool.

4. Have other people noticed any changes after the sessions or more generally, or are things much as usual?

Others have noticed changes within swimming/pool sessions. The student is generally more confident and interactive within other class swim sessions.

5. What advice would you share with others about involving their students in such a project?

Smaller groups of students encourages a more calm environment for Liquid Vibrations/ Watsu. Also, having one familiar adult for every child is most important to helping every child participate.

6. Has anything changed in the way you work with the child after experiencing this project?

No

7. Do you have any advice for us in terms of setting up similar projects at other schools?

Work with smaller groups of children (3-4) to create a calmer environment and make sure there is an adult to work with every child. It is also very important to explain to new adults (those who haven't done the training) what they are supposed to be doing. Most importantly, providing a structure or routine to the session would help, i.e. starting with a quiet song, getting in one at a time, doing the same activity to start – this would help both children and adults.

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1. *Now that the project is finished what are you most pleased with in terms of the child's experience?*

He took his time to fully engage with the sessions but once he had become familiar with them he was confident to take part. He lay back with his head in the water listening to the music which has not happened during his regular swimming lessons.

2. *What has the child experienced or achieved?*

He has achieved confidence in lying back and relaxing in the water. He is a child who seeks being held closely and previously gripped very tightly onto an adult with arms and legs.

3. *What are you most surprised by?*

His response to putting his head in the water and relaxing so that he was only holding loosely onto the supporting adult.

4. *Have other people noticed any changes after the sessions or more generally, or are things much as usual?*

There has been nothing notable outside of the sessions and it has not impacted upon his confidence in the water during his regular swimming lesson. With his

diagnosis of Autism he finds it challenging to generalize his skills to other environments.

5. *What advice would you share with others about involving their students in such a project?*

He took time to get used to the environment and the expectations of a new situation. An opportunity to participate over a longer period of time would have been of benefit. Being able to familiarize our children with Autism before sessions would have been beneficial.

6. *Has anything changed in the way you work with the child after experiencing this project?* No

7. *Do you have any advice for us in terms of setting up similar projects at other schools?*

If working with ambulant children with SLD and Autism it would have been beneficial to have had time getting them used to the environment (including music) before increasing the demand and being instructed by the trainers to try different holds etc..

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1. Now that the project is finished what are you most pleased with in terms of the child's experience?

- I felt like the child could relax.
- It enhanced our relationship.
- The child was able to open up and respond to my instructions – this child is often locked in his own word so this was an achievement.

2. What has the child experienced or achieved?

See above. Plus the child is non-verbal so it is difficult to say as I can only go by his body language. I was only there for three weeks out of six I know that the child only participated for the three weeks that I was there. Therefore he did not get the benefit of the full six weeks.

3. What are you most surprised by?

- How the child could relax and let go.
- How good it was for our relationship.
- It took me nearly half an hour during each session to get the child to relax and trust me but once he did it was enjoyable for both of us.

4. Have other people noticed any changes after the sessions or more generally, or are things much as usual?

- No one has commented but I do feel that I am getting more eye contact and response from the child because our relationship has enhanced.
5. What advice would you share with others about involving their students in such a project?
- Need consistent staff.
 - If a child (especially one with special needs) seems reluctant keep trying to engage them but in a gentle way. The child needs to learn to trust the person and process what they are experiencing before they will participate fully.
6. Has anything changed in the way you work with the child after experiencing this project?
- Our relationship is better which in turn is making me make more time for the child.
7. Do you have any advice for us in terms of setting up similar projects at other schools?
- Use consistent staff.
 - Use staff that know the child.
 - Ask all adults in the pool to keep quiet so that the children can relax and enjoy the sensation. When the adults were talking my child became distracted.

Final Session Report by Swimming/Watsu Specialist

28 February, 2014

4-children, 3-teachers, and 1-carer.
Angela observed from poolside.
Adele and myself were in the water.

The water session lasted for 60-minutes.

On the last session of the course there was under water sounds playing, which got the children's attention, but not at first. As the children entered the water there was a physical need for them to play and let off steam. The sessions are at the end of the day and I'm sure being in water is a welcome fun break for them.

As the children started to settle down and focus, they were a little more curious to the under water sounds. There were many times during the session when the children were open to being floated on their backs, and listening to the under water sounds. When these opportunities arose you could see the concentration on the children's faces, and there was a calmness to their bodies.

The child who had never left the steps during the 6-week course, zig-zagged across the pool with his teacher guiding him, the closer he got to the sound, the more focused he became. I don't think he could hear the sounds, as his ears were above the water, but he definitely could feel the sounds resonate through his body; he became less anxious, looked and felt calmer in his mind and body. His teacher was able to float him, which he was open to, this is something he has never experienced before. Because he was feeling calm, this also helped him to explore and become more water confident.

The more I work with children when under water sounds are playing, the more I can see and feel how beneficial under water sounds bring a healing touch, not only for the children, but also for the adults who are working with the children. Everybody benefits!

Stephanie Dutton
Swim with The Mind/Body Awareness Programme