

# **The Impact of Dance and Movement on the Communication Abilities of Children with Complex Physical Needs**

## **Background**

As a response to national initiatives to improve standards of health and exercise and a concern about the 'epidemic' of movement disorders in young children (Portwood, 2004), Early Years and KS1 staff at Blackfriars were encouraged to introduce a short session of physical activity to each school day. Each teacher chose a music track to which a series of dance movements could be practiced on a regular basis. Staff were also encouraged to include movement activities across the whole curriculum.

However, as Blackfriars caters for a very wide range of students, staff were initially uncertain as to how best to include the students with the most severe physical disabilities in the daily exercise routine. It was suggested that two approaches were to be used in tandem.

Firstly, it was felt that students with physical disabilities would gain a lot of enjoyment from experiencing the same full range of movement that the able bodied children experienced and therefore for part of the activity should be physically assisted by an adult.

To balance this there is a strong ethos at Blackfriars that the independent abilities of each child should be acknowledged and celebrated. It was decided that, as well as being physically assisted during the exercise activity, each child should focus on refining one simple achievable independent movement such as lifting their arms or even moving a finger. These efforts were to be given as much attention as the more complex actions of the more able children.

## **Potential for Communication**

It soon became apparent that as well as the health, concentration & behaviour benefits that the daily exercise routine promoted, the regular repetition of simple independent movements could have a tangible impact on the potential of the more severely disabled children to communicate. Staff monitored this area of development by focussing their observations on three non-verbal six year old children with severe Quadriplegic Cerebral Palsy.

Gaining control of even the most simple motor movement is extremely empowering to a child with severe physical disabilities.

Lifting a hand, arm or finger with purpose enables pupils to:

- Activate a voice output device – take part in stories, games, jokes and conversations
- Press a switch to control aspects of their environment such as toys, audio-visual and sensory equipment
- Access simple computer programmes
- Request a turn or call attention to themselves
- Confirm their choice of object or activity
- Indicate a negative response by withholding the action

(This list is not exhaustive)

Staff focussed on lifting a hand / arm or finger as this was one of the areas of the body that the focus children had most movement in. This was also because it is a relatively obvious movement that can be interpreted by people who do not know the child as well – giving them the opportunity to communicate with a wider network of people. This is recognised good practice in AAC. “While a clinician might identify an option that is technically more efficient, if it is not in keeping with the primary user’s skills and preferences it is unlikely to be used effectively” (Sigafos & Lacono, 1993).

## **The Value of Dance**

“Dance is the hidden language of the soul” (Martha Graham)

Two dances were developed for use in the daily exercise routines: ‘Reach for the Stars’ by S-Club Seven and ‘Move like an Emu’ by the Wiggles. Both involved clear opportunities for children to lift their hands as well as other movements for them to experience when supported by an adult.

Although such song and movement sessions may appear trivial, they are fulfilling the same purpose that other, more sophisticated dance opportunities fulfil for more able bodied people. That is to say that they provide a relevant shared cultural experience where movements are representative and meaningful and children are engaged creatively in the process.

It was imperative that the movements of the children in the focus group were given as much credence as those of the more able children. No distinction was made between a twitch of a finger and a full stretch of an arm providing the movement was purposeful. In this way the children gained understanding that their actions could bring about reactions from others. Giving meaning to, and responding consistently to children’s gestures is important when creating effective opportunities for communication (Sigafos et al, 2000)

Opportunities for free movement within the exercise sessions proved fundamental to the children recognising themselves as dancers. Just as in theories of intensive interaction wherein treating children as meaningful communicators gives rise to meaningful communication (Hewitt & Hind, 1998) so by interpreting a child’s independent, expressive movements as dance, they become dancers.

## **Transferring Learned Movements to Other Contexts**

As a result of developing control over a motor movement, children were able to apply that skill to other areas of the curriculum.

Movements were reinforced during the welcome routine in the morning and afternoon through the following register songs:

am: “*John Smith if you’re here lift your hand, John Smith if you’re here lift your hand, John Smith if you’re here, John Smith if you’re here, John Smith if you’re here lift your hand*”  
(sung to ‘if you’re happy and you know it’)

pm: “*John Smith if you’re there, put your hand up in the air*”

Such repetition was vital for the children to refine the action and bring it under their autonomous control. A switch could then be placed under a child’s lifted hand so that it

could be pressed when the hand was lowered or above the child's hand so that they pressed it as they lifted their hand. As children became aware that their simple action could bring about another, more rewarding action such as saying 'hello' by pressing a 'Big Mack™' voice output switch, their motivation increased dramatically. The register song has now changed to "*John Smith if you're here say 'hello'*" as children have become so proficient at using their switches. The children in the focus group have begun to vocalise more as they pressed their switch. This often happens when children are given a 'voice' through AAC techniques (Hurd, 1996; Ronski & Sevcik, 1996).

Children in the focus group were also encouraged to count the other children in the class by lifting their hand for each child they were taken to during the counting routine. The adults and other children said the number as the child lifted their hand, again giving meaning to children's communications. This can lead to a child counting independently using a 'Step by Step communicator™' with the numbers 1-10 recorded onto it. In one child this skill was extended to counting objects during the Numeracy lesson.

## **Outcomes**

The physical exercise programmes continue to take place with children with More Complex Needs continuing to take an active and acknowledged role. Colleagues have found that children are able to lift their hands more readily in all aspects of school life. The time it takes the focus children to act in response to situations has decreased and children have begun to respond to conversations not directed at them (for example one boy raised his hand purposefully when the teacher asked another child if she'd like to listen to a story tape). Parents have also reported that children are more active at home – one girl has been able to activate a singing teddy and one boy has started to reach for his Mother's mobile phone and even begun to isolate one finger to try to press the buttons.

The fact that children can choose to withhold a response is very powerful and must not be underestimated. It is important that children are given the opportunity to say 'no'. All too often practitioners persist in asking a child if they want to do something until they get a response. Knowing that the child *can* respond but is choosing not to allows for a meaningful dialogue to take place.

Having the means to communicate has been shown to increase the interactions between the child and others. (Shepis and Reed, 1995) and the synergy arising from the complex interplay of movement and communication, with each reinforcing and enhancing the other, results in an exponential increase in motivation.

**“To dance is to be out of yourself. Larger, more beautiful, more powerful. This is power, it is glory on earth and it is yours for the taking.” Agnes De Mille**

## Practical Information

### Other ways of encouraging hand and arm movement

- Download interactive webcam games such as webcam mania for use on computers or interactive whiteboard. Children must move hands (or other body parts) to complete fun tasks such as popping bubbles or wiping the screen clear. The child is also able to watch themselves on the screen as they do it.
- Soundbeam equipment allows children to make music independently via sensors which convert even the most minute movement into digitally generated sounds. Groups of children can work together to produce symphonies.
- Place novelty toys that activate (e.g. play music or a sound effect) when they are dropped on a child's tray. The child needs to move their hands to push the toy off and listen to the reward!
- Put sensory material such as rice, shaving foam etc. in a tray or bowl that the child can reach easily. Some children will be motivated to move their hands around in the material. (others may hate it!)
- Wrap a child's arm and hand up in a satin sheet & throw the sheet over the child. They need to move their arm to pull the sheet off to play 'peek a boo' games (or scaring other children / staff if more age appropriate)
- Use hand puppets to encourage children to lift their hand to see the puppet (or to show their friends the puppet – even more motivating)
- Hang windchimes within reach of the child
- Play tickling games such as round and round the garden
- Massage arms & hands

### Examples of 'age appropriate' songs to encourage arm movement in older students:

Fedde le Grand – Put your Hands up for Detroit  
Fat Man Scoop – Put your Hands up  
Black Eyed Peas – Hands up  
Ottowan – Hands Up, Baby Hands Up  
Elephant Man featuring Rhianna - Throw your Hands Up  
Fergie – Get your Hands up  
S Club 7 – Reach for the Stars  
Bro'Sis - Put your Hands up  
Aaliyah – Throw Your Hands Up.  
Danzel – Put your Hands up in the Air

'Radio Edits' may be more appropriate when choosing rap or hip hop tracks.

## References

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