



Sherborne @ Sunfield :
**An Adapted Teaching Approach to the Sherborne Developmental Movement
programme for use with Children with Autistic Spectrum Disorders**

Introduction

This two-year study was a collaborative work between Sunfield School and the Sherborne Association UK and supported by the Three Guineas Trust. The project started in September 2004 and ended in August 2006. As an organisation which operates a 24 hour curriculum for children with severe and complex learning difficulties, the majority of whom have Autistic Spectrum Disorders (ASD), Sunfield was ideally placed to investigate the resonance of Sherborne Developmental Movement (SDM) programme with the concept of engagement in the 21st century. Sunfield as a research institution is renowned for advancing knowledge and ensuring that the knowledge and skills, which are based on valid research evidence, are shared with other service providers and professionals in the field of autism. Teachers' contribution towards the adaptation and development of appropriate teaching strategies responsive to the unique learning patterns of these children is vital.

Objectives

The aim of this study was to develop an adapted teaching approach to the SDM programme and then explore its perceived effectiveness in terms of supporting the social engagement with children with ASD. Through an illustrative case study and school-based research, this investigation sought:

- To explore the perceived effectiveness of the existing Sherborne Developmental Movement programme design in enhancing social interaction, communication and curriculum access for children with profound ASD
- To explore teaching and learning approaches that can be used in the delivery of the SDM programme in order to enhance social interaction, communication and a holistic learning profile of a child with ASD.
- To produce an adapted teaching approach to the Sherborne Developmental Movement programme, which becomes rooted in classroom practice and which is designed specifically to address the diverse, and unique learning patterns of children with profound Autistic Spectrum Disorders
- To evaluate staff perceptions of the effectiveness of the adapted teaching approaches to the SDM with children with ASD.

Methodology

Research Sample

One hundred pupils, all with a diagnosis of severe/profound Autistic Spectrum Disorders were identified and participated in this study. Twenty nine pupils at Sunfield took part in phase 1. However additional numbers of children from ten other special schools (n = 71) were involved at later stages of the study to provide a reasonably representative sample. They ranged from ages 6 – 19 years old and comprised of males and females.

Project Design

Through a qualitative action research design, the Sherborne Developmental Movement Programme was delivered to children with autism through a series of movement sessions carried out in three phases. The first phase involved 29 pupils at Sunfield. The pupils' responses to the sessions, informed the development of an Adapted Teaching Approach to the SDM programme. This adapted teaching approach was evaluated in the second phase with the same Sunfield pupils (n = 29), as well as, 14 pupils in two other special schools. Findings from the second phase resulted in further refinement to methods of delivering the programme. In the final phase, a UK national verification trial was conducted whereupon the programme was given to teachers in ten schools (including the two phase 2 schools as well as two new classes from Sunfield), in order to assess their perceptions of the effectiveness of the developed teaching approaches. Specific measures of social communicative indicators were recorded.

Sherborne @ Sunfield Programme Design

Prior to the start of Phase 2, the first model of the adapted SDM approach was devised based upon Phase 1 outcomes.

During the implementation of phase 1, the facilitators suggested the introduction of visual cues such as symbols and photographs as a means of communicating session developments to students. Visual communication systems build upon the strength of students with ASD as visual learners (Mesibov and Howley, 2003; Mesibov et al., 2005). Most students with ASD at Sunfield and elsewhere routinely use visual communication and scheduling systems, both through the Picture Exchange Communication System (PECS; Bondy and Frost, 2002) and within the TEACCH model of structured teaching (Mesibov & Howley, 2003; Mesibov, Shea and Schopler, 2005). The Sherborne @ Sunfield design was based on these two approaches, which take account of the unique learning patterns and needs of students with Autistic Spectrum Disorders.

Initially, self-designed symbols were produced by the researcher and Sunfield School Occupational Therapist (OT). In fact it was the OT who practically did the line drawings. However, at the end of the implementation of phase 2, a bilateral development involving Sunfield and Widgit Software was forged to improve the quality of the symbols and make them (SDM symbol) available as part of their future package. While the improved Widgit symbols were not ready for use during the research project, samples were available for staff training purposes. To increase manageability of symbols/photographs for communication, students and facilitators were given an extendable belt attachment which held a number of visual cues relating to movement experiences. Facilitators were

then easily able to cue students into the next movement experience, without having to retrieve symbols from elsewhere to do so.

This comprised:

- Specific verbal communication strategies – minimal and focused use of simplified language in association with visual communication

- Specific visual communication strategies, which included:
 - individual size Sherborne symbols or photographs on an extendable belt ring for use by both pupils and supporters
 - A4 size Sherborne symbols and photographs for pupils with visual difficulties

- Structural strategies, including:
 - Scheduling of movement experiences using a left to right sequence of A4 symbols/photographs to form a ‘wall schedule’ alongside A3 instruction cards
 - Kinaesthetic cues, including specific beginning, transitional and end movement experiences

- Strategies to improve consistency, including:
 - Specific guidance for supporters in use of language (A3 cue cards)
 - A protocol for the introduction of new movement experience elements
 - Consistent support

Standard recording and reporting strategies were also put into place including an observation/evaluation schedule devised to monitor levels of interaction and engagement to be filled in by supporters at the end of each session.

Key Findings

As a result of the programme implementation, a number of interesting findings emerged, each of which have implications for practice

Programme Content: The initial hypothesis in this study was that Autistic pupils with communication difficulties may find Sherborne’s Developmental Movement experiences problematic particularly if they were tactile defensive. However, it emerged that the movement experiences themselves were not a problem, as most pupils were able to partake in all the activities presented. Many of them, instead, found the unstructured teaching approach to be the main issue. This prompted a change to the research hypothesis from the child (adapting the programme content) to the teacher (modifying pedagogy). Instead of adapting the movement experiences, it was the teaching approach, which required adaptation in order to secure pupils’ engagement. Results indicated that most of the pupils showed an increase in their social interaction and communication, which are, of course, the most crucial elements determining social engagement

Structured Teaching Approach: There is an overwhelming recognition of the significance of structured teaching approach in the context of autism. While the SDM programme is traditionally delivered through an open-ended teaching approach, led by the participants with no specific structure or order of activities, the staff reported that the structured teaching approach with well defined lesson plans proved very helpful in securing pupils' engagement. There were three distinct findings highlighting the importance of the structured teaching approach adopted in this project. Firstly, most of the participants found the programme more acceptable because of the predictable sequencing of activities. Each session always began with 'Rocking' followed by 'sliding on hips' and ended with the most popular activity, 'Sliding on the blanket'. This predictable sequence resulted in an increase in pupils' engagement, as it became familiar to them.

- **Transition:** Secondly, the use of rocking as a transitional cue between activities was particularly recognised as being crucial in reassuring anxious participants. Between activities, the group would return to rocking as a way of establishing a consistent teaching approach. This suggests that rocking can be used as a kinaesthetic clue just as symbols are visual clues.
- **Repetition:** Thirdly, the structured repetition and practice emerged as being crucial towards the effective delivery of Sherborne @ Sunfield with children with autism. The gradual introduction of new activities while retaining some familiar ones proved beneficial to the participants since regular use of the retained, known activities allowed the pupils to achieve success while still struggling to learn the new movement experiences

Iconic Values of Visual Cues: There is overwhelming evidence suggesting that the implementation of the SDM programme through structured teaching approaches targeted to autistic pupils' strengths as visual learners, through the use of visual cues contributed significantly towards pupils' engagement. Visual Cues immensely reduced the need for verbal instructions and other prompting strategies by improving the pupils' levels of understanding of the expectations.

- **Choice:** The visual cues provided the pupils with opportunities to communicate their preferences regarding activities in a much clearer way. For example, the staff reported that some pupils would intermittently refer to the set of visual cues on key rings to ensure that their favourite activity was on. Similarly, there was evidence suggesting that the symbols helped to improve pupils' confidence resulting in improved interaction between them and their supporters.
- **Progress in Learning:** Staff reported that some pupils made progress from being dependent on visual cues to being good listeners and communicators. The A3 and A4 cues posted on the wall were a great help to both the staff and pupils who were not very familiar with the programme. For example, there were instances when people with no previous experience in using SDM were deployed to support individual

pupils, but because the visual cues were clear and self-explanatory, they were able to provide effective support.

- **Modelling:** While some studies recognise the merits of video modelling against direct modelling, it became apparent that clear demonstration appears to be more motivating and attention holding for children with ASD. Whenever the session leader or supporters demonstrated an ongoing movement experience, more sustained engagement with the pupils ensued.
- **Pupils' Social communicative Development:** The main objective of developing teaching approaches that could enhance pupils' social engagement seems to have been achieved. The results revealed pupils' improved ability to make eye contact, maintain joint attention and share experiences. Staff evaluation reports showed that participants' attention spans and eye contact improved and their turn taking abilities increased. Whilst the decrease in imitation could be attributed to the understanding gained from visual cues, it was uncertain why initiation of interaction decreased. Overall the level of disengagement reduced from 34% in Phase 1 to 16% in Phase 2.
- **Sensory sensitivity** is a major factor for individuals with autism in situations unfamiliar to them. Many people with ASD may experience hyper/hypo sensitivity to touch, sound, and smell or sight, as well as other environmental overloads. It became apparent that the attraction from the physical environment proved irresistible to some participants. While evidence showed that some pupils craved for close personal contact, some initially resisted touch, but eventually overcame the barrier by the end of the project. Most pupils appeared to accept touch during the movement sessions because in this context it is not irrational, rather it was focussed and part of a cohesive experience incorporated into their kinaesthetic learning modality. The reduction of pupils' anxieties was attributed to the reassurance obtained from visual cues.

Implications for Practice

- The adult supporters remain central to the development of relationships and engagement in movement with individuals with ASD. In this way the adult's body becomes the conduit for experiencing movement. It became apparent that all the pupils involved in this project demanded 1-to-1 support. A need for the expertise of these adults emerged as being crucial if they have to provide effective support and ensure the quality of delivery of the adapted teaching approaches to the SDM. Training is therefore a high priority.
- Many headteachers and staff from the participating schools acknowledged the effectiveness of the programme and expressed their readiness to offer it to a wider pupil population in their schools. However, the majority felt that staff training on the developed approaches would be paramount. A training package, therefore, is to be developed to meet this demand for practitioners implementing the Sherborne @ Sunfield.

Way Forward

The key findings highlighted by this research will form part of the core future training offered to various practitioners interested in using the Sherborne @ Sunfield as an interactive intervention, which effectively engages children with ASD. Similarly, while the findings relied mainly on staff perspectives, it would make perfectly good sense to explore learner voice on the effectiveness of the programme.

Dissemination

- Through the Sunfield Professional Development Centre, training in the theory and practice of the Sherborne @ Sunfield programme will be offered
- Details of the research, its development and outcomes will be made available on the Sunfield web-site (www.sunfield.org.uk)
- Interim academic papers will be directed towards peer reviewed journals and publications in education and social sciences here and abroad
- A video has been produced to describe the research programme
- The research process will be reported in a forthcoming publication 'Moving with Research: Evidence Based Practice in Sherborne Developmental Movement' edited by Jotham Konaka and Dr Elizabeth Marsden.
- With further support from the Three Guineas Trust, a training DVD will be produced (available mid 2007).
- The adapted programme will have its international launch in New Zealand in March 2007
- And the full teaching programme will be reported in a chapter in a forthcoming book, 'New Horizons: Evidence Based Practice in Action (Editors Barry Carpenter & Jo Egerton).

Executive Summary prepared by Jotham Konaka, Teacher/Researcher, Sunfield. Full report is available on request. November 2006
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