

Evaluation of the Efficacy of a Developmental Dance Movement Programme as OT Intervention for Children with Autism

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INTRODUCTION

Background

Movement is often acknowledged as the primary and dominant means of action, learning and overall development for young children (Zachopoulou, 2006, p. 281).

In addition, there is increasing evidence that children on the Autistic Spectrum significantly present with neurological motor impairment (Dowd et al., 2012), negatively impacting on their ability to achieve occupational goals.

Research Aim

This research uses a Developmental Dance Movement™ programme (DDM) to evaluate ways in which arts and movement practice can inform OT to support cognitive and neuromotor development to achieve occupational goals.

METHODS

Research Approach

To improve accuracy and validity as well as providing a more complete picture of occurrences of transfer and learning and to explore the usefulness of DDM for OT practice a mixed method approach was adopted. The investigation is ongoing and uses a grounded theory approach to develop theory out of practice (Cresswell & Plano-Clark, 2007).

Data Collection & Analysis

The research is based on a DDM programme developed as a kinaesthetic tool and delivered over the last two years with early years' practitioners and pupils in nurseries and mainstream primary and special schools in London (Golding et al, In Press). Based on the findings from observations of case studies, qualitative data from semi-structured interviews and statistical evidence using the Goodenough-Harris (1963) draw-a-person test to explore transfer of learning, the research explores the applicability of DDM for OT with children with Autism. Ethical approval has been granted by City University, London. All images were collected with permission by the author. For further information please contact info@movementworks.org.



P is for Pass (illustrating cross-curricular and social aspects of intervention)
Source: MovementWorks <http://www.movementworks.org/>

FINDINGS

Findings

Findings from the DDM study indicate the potential for accelerated and cross-curricular learning for all children and suggest that children with SEN and particularly those with Autistic Spectrum Disorder (ASD) benefitted significantly.

For example, case narrative 1 'Keyana' was described as severely autistic with additional needs. She had her own one-on-one support and was hardly ever seen to integrate with the rest of the class. Her positive response during the DDM sessions allowed her to participate mostly independently. She was able and willing to join in with the other children to a level never previously seen: "For anyone walking in, I don't think they would have noticed her being an autistic child." (Class Teacher)

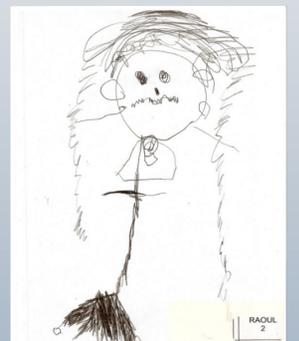
There is evidence of both transfer of learning and an increased understanding of student's development needs on part of the participating teachers. Consequently, using a DDM programme as an OT intervention for children on the Autistic Spectrum to enhance school performance and support other occupational goals is promising. Examples of learning outcomes for selected case studies are summarised in Table 1.

Table 1: Summary of SEN Case Study Learning Outcomes

Child	Prior Learning Status	Practitioners Observed Learning Outcomes	Children's Learning Outcomes - Changed Behaviour	Highlighted Theory
Anthony	SEN. Identified developmental delay of approx. 18 months.	Anthony tries to cover up his inadequacies. He enjoys achieving with his peers. In a positive supportive environment he is capable of focused engagement.	Enjoyment, increased engagement and physical developmental progress.	Accelerated learning through developmental movement tasks.
Armani	Suspected autism. Demonstrates little physical development interests. Slow to learn.	Both physical and cognitive difficulties are reflected in her behaviour and approach to learning.	Shows ability to progress in physical development tasks.	Accelerated learning through developmental movement tasks.
Keyana	Severely autistic with additional SEN. Requires individual support. Does not engage in classroom activities or interact with peers.	Confirmed musical preference. Capable of integrating and exceeding learning expectations in a preferentially supported environment.	Ability to participate independently in a group session and integrate with peers.	Accelerated learning Musical/Kinaesthetic Intelligence/Preference.



T-test results from Aston index pre-post scored drawings showed significant differences ($p=0.005$) in visual-motor integration and developmental maturity.



CONCLUSION

Conclusion

Using a DDM programme could be an example of interprofessional practice between OT and other professions. Based on the experiences with DDM an observational sheet to inform in-depth knowledge of developmental status and enhanced intervention on an individual and group level has been developed and could be adapted to include OT specific observations and concerns.

Implications for Practice

- Partnership working beyond the orthodox health and social care sphere can be beneficial for occupational therapy with children with ASD.
- DDM can provide important social as well as proprioceptive and vestibular input and enhance both cognitive development and social integration for children with ASD.
- Participation in education and access to leisure activities is embedded in the Convention of Human Rights (1948) and the UN Convention on the Rights of the Child (1989). Using a DDM programme as intervention might provide opportunities for children with ASD to participate in occupations of productivity and leisure and consequently address instances of occupational injustice (Townsend & Wilcock, 2004).