



Developing a Model of Pedagogical Best Practice in the Use of Interactive Whiteboards for Children with Autism and Complex Learning Disabilities: Implications for Initial Teacher Training

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Aims and rationale

Interactive whiteboards are fast becoming established in schools as a valuable means of engaging pupils, and when used appropriately can have a positive and radical effect on teaching and learning (British Educational Communications and Technology Agency (Becta), 2003, 2007; Higgins, Beauchamp and Miller, 2007). However, while there is a steadily growing literature on the use of interactive whiteboards in mainstream education, there has been little work done around their use in engaging pupils with autistic spectrum disorders (ASD), taking into consideration their sensory disruption, atypical learning styles, environmental needs and communication/social difficulties in the teaching strategies used. The high prevalence figures of children with ASD – 1 in 100 children (National Autistic Society) – suggest that most teachers at some point in their careers will need the skills to include pupils with ASD meaningfully within their teaching and learning environments. It is important to find ways of engaging this group of pupils, as pupils with autism or Asperger syndrome are 20 times more likely to be excluded from school than their classmates (Barnard, Prior and Potter, 2000; BBC News, 2000). This is an issue which needs to be raised during Initial Teacher Training. This study therefore aims to address this by identifying teaching skills and strategies which will ensure the access of these students to the benefits of cutting edge ICT technology open to other pupils, and in doing so to reflect the aims of *Every Child Matters* by working to increase these pupils' enjoyment, their achievements and their ability to participate in their own learning.

This research project aims to:

- Identify strengths, weaknesses and best practice in the use of interactive whiteboards for pupils with ASD and learning disabilities, and make recommendations for optimised practice and adaptations within existing pedagogical approaches
- Involve Initial Teacher Training students in research and increase the facility and confidence of all teaching staff – initial teacher training students, qualified teachers, teaching assistants – in using interactive whiteboards in the classroom with pupils with ASD

- Develop one-day professional development training relating to the above.

Methodology

This research will take the form of a case study over three terms. Following an in-depth review of literature around best practice in interactive whiteboard use for students with disabilities, an audit of current practice with interactive whiteboards in the school will be carried out. An action research approach to subsequent practice development in response to the learning needs of students with ASD will be taken.

Outcomes

It is intended that the outcomes of this research will enable all teaching staff including Initial Teacher Training students to extend their skills in the areas of ICT and inclusion by:

- increasing their knowledge and understanding of interactive whiteboard-associated teaching and learning strategies and how to adapt and personalise these for students with ASD
- providing strategies to include students with ASD by supporting access to interactive whiteboard-based learning resources to help them achieve their full educational potential
- providing opportunities to evaluate the impact of different interactive whiteboard-associated teaching and learning strategies on the progress of students with ASD and to modify their planning and classroom practice where necessary.

Benefit realisation: dissemination, outputs and evaluation of impact

These outcomes will be evidenced and evaluated by pre- and post- research surveys of practitioners involved in the project, by liaison with the University of Worcester Institute of Education as the initial teacher training provider, and on-going participant evaluation of the associated professional development training courses which will be developed as part of this project. Dissemination to stakeholders, teaching staff (ITT students, NQTs and qualified teachers) and higher education institutions will take place externally and internally throughout the project in a variety of ways via: the Teacher Training Resource Bank, the Sunfield website and other key websites and links; internal and external one-day training through Sunfield Professional Development Centre and other venues; conferences; professional and academic journals; information sheets distributed through national and international networks; Sunfield Publications; and Sunfield's internal research dissemination systems.

Teacher Training Resource Bank: <http://www.ttrb.ac.uk/>

Training and Development Agency for Schools: <http://www.tda.gov.uk/>

Current Educational Research in the UK: <http://www.ceruk.ac.uk/>

References

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- Becta (2007) *Evaluation of the Primary Schools Whiteboard Expansion Project*. Report to the Department for Children, Schools and Families. [Accessed: December 2007; Online at: www.becta.org.uk]

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Compiled by: Jo Egerton, Research Fellow/Publications Officer
For further information please contact Jo Egerton on Ext 363