



Queensmill School

Research & Development Newsletter

Welcome & Update from the R&D board

Welcome to the third edition of our R&D newsletter. The focus of this issue is on the use of technology with children with Autism and we have summarised some recent research on this topic for you to consider. We felt that this was particularly relevant for both staff and parents as many of us are now regularly using computers, tablets and other electronic devices at home and school with our children to support their learning, communication, behaviour and skill development.

We continue to respond to your feedback about what you would like to see in the newsletter. In this issue, we have had a written contribution from a parent. We hope that this will be a regular feature and welcome any suggestions for future issues from both parents and staff.



This term, the R&D board has developed a process of monitoring and evaluating the impact of research conducted in school. This includes guidelines to ensure that researchers who complete projects in the school provide us with feedback about their findings in a way that is clear and easy to understand. Since the last issue, the yoga research project which took place at Fulham Primary Queensmill Unit has been completed. A

summary of this is attached with your newsletter and a presentation was provided for staff and parents who were involved. We have recently become involved in a national research project looking at the impact of Music Therapy intervention for children with Autism. See page 2 for more details.

In November, we ran our first in a series of three workshops for parents about understanding research. The focus of this session was research about sleep in children with Autism. We looked at a research summary which concluded that sleep problems are common in people with Autism. A review of the research on treatments suggested there is some evidence that behavioural interventions are helpful in treating sleep problems in people with Autism and that melatonin can be helpful in reducing the time it takes some children and young people with Autism to fall asleep. However, more research is required in this area. Dates for the next parent workshop are coming soon. We have also set up a journal club for school staff with the first session running before the Christmas holidays. This will help to ensure that we all keep up to date with current evidence-based practice.

**Enjoy the newsletter & Merry Christmas
from the R&D board!**

WATCH THIS SPACE!

We are in the process of putting together an R&D page for the school website. This will provide access to a range of information about Autism research both in and out of school.

Volunteers required for research in Cambridge

In September, one of our parents attended a talk by Alexa Pohl, a PhD student working with Professor Simon Baron-Cohen at the Autism Research Centre (ARC) in Cambridge.

As part of her PhD research Alexa is looking for parents of children with autism to complete an online survey, and if possible to make a short trip to Cambridge to do some cognitive tests and provide a blood or saliva sample. This work aims to increase understanding of the causes of autism.

If you would be willing to visit Alexa in Cambridge, the best way to contact her is by email on:

ap728@medschl.cam.ac.uk.

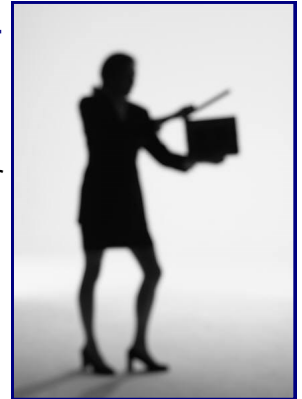
You can also find out more about the research at ARC by visiting:

www.autismresearchcentre.com

Autism Research Digest: Technology

A meta-analysis of video modeling and video self-modeling interventions for children and adolescents with autism spectrum disorders. (Bellini & Akullian 2007)

Video modelling is a method of teaching in which an individual learns a behaviour or a skill by watching a video recording of someone (the model) demonstrating that behaviour or skill. It can be used in school and in the home. The model can be someone else – such as a teacher, classmate, parent or sibling – or it can be the individual him/herself – when the process is called video self modelling (VSM). The supporters of video modelling claim that it has been used to teach a wide variety of social and functional skills, such as how to interact with other people or how to buy things. It can also be used to teach an individual how to apply previously learnt behaviours and skills in new settings.



The research by Bellini and Akullian, although a little dated, remains the most recent review of many studies. They reviewed twenty-three single-subject design studies using video modelling and VSM. The results showed that both approaches are effective intervention strategies for addressing social-communication skills, functional skills, and behavioural functioning in children and adolescents with autism. The review also showed that many of the newly acquired skills maintained over time and transferred to other settings. Since this study was published, further research has been done using video modelling to teach maths, play skills and readiness for mainstream school and other skills.

We use this approach at Queensmill and one member of staff recently used VSM with students to learn some vocational skills (cooking and serving food in a restaurant role-play situation). Following the completion of this project, one of the students went home and spontaneously laid the table, cooked and served a meal for his family. The recent introduction of cameras to our classrooms will allow for video modelling to be used more extensively.

International Research at Queensmill

The TIME-A MusicTherapy trial (Randomised controlled trial of the effectiveness of Music Therapy for children with autism) is now underway at Queensmill with six children already participating in the trial. If your child is aged between 4 yrs - 6 yrs 9 months old, has a diagnosis of autism, and you are interested in hearing more about the study, you can contact the researcher Lavanya Thana (07903 285508 or e-mail: L.thana@imperial.ac.uk).

For more information about the trial, including information about the trial internationally, please visit: <http://uni.no/en/uni-health/gamut/music-therapy-for-autism/>



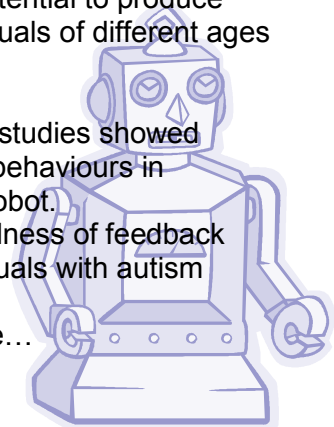
The clinical use of robots for individuals with Autism Spectrum Disorders: A critical review (Joshua J. Diehl et al. 2012)

Despite the use of robots for pupils with autism receiving much media attention in the past ten years, this review showed that there have only been approximately 20 relevant studies and all of these have been on a very small scale. We are still not clear about what are the best roles for robots, how they might be used in therapy and what pupils might best be suited to respond positively to their use. The review showed limited evidence that:

- ⇒ Some individuals with autism prefer robots to non-robotic toys or humans.
- ⇒ A robot-child interaction has some potential to produce different types of behaviours in individuals of different ages and levels of ability,

However:

- ⇒ In most cases participants in relevant studies showed better verbal and nonverbal imitating behaviours in response to a human partner than a robot.
- ⇒ There is little information on the usefulness of feedback from robots in interventions for individuals with autism



The overall message of this review might be... 'Watch this space R2D2'.

Parent Voice



This new feature provides an opportunity for a parent to reflect on an intervention or piece of research. Kenneth, who talks about his experience using exclusion diets in his contribution for this issue, is a father of two children who attend Queensmill School.

My two sons aged 14 and 11 years have both been diagnosed as autistic and attend Queensmill School. Having a science background and working in the technology industry makes me infinitely curious especially regarding reading up on the latest research findings on autism and how I can enable my sons to live a better quality of life now and in the future. One of the things that I have tried which did not work for me was the gluten and casein free diet. We decided to try this diet intervention because I felt then that they were both too hyperactive. Implementing the diet required one of the biggest shifts that we have had to make as a family since meals and mealtimes are one of the key areas where we come together and observe a ritual. Changing the whole family diet was a big challenge and the availability of gluten free and casein free food also provided a great challenge. Even more difficult was to sensitise all who helped with the boys and monitor everywhere they went to ensure they kept to this rigorous diet.

We stayed the course for a year, in what seemed like a denial of things they felt they wanted. Our turning point came when I stumbled upon different research pieces that indicated that there was no sufficient data to indicate the impact of gluten and casein in the diet for children with autism and realised this was not benefiting my children. In our case, as with Thomas Edison the inventor of the light bulb, we ended this season by saying at least we tried and we now know one thing that doesn't work for us.

I continue on my lifelong quest of staying hungry and learning new things from common resources that would help my sons live a full life.

Research volunteers required

Dr. Elisa Back is a Senior Lecturer in the Department of Psychology at Kingston University London. Her research involves investigating social understanding in adolescents with Autism Spectrum Disorders (ASD). She is currently conducting a study about facial expression recognition and would greatly appreciate the participation of your 11-16 year old child in this project. The study involves three sessions: An Autism checklist, an IQ test and a computer task. The computer task involves facial expressions being presented on a computer screen. Accuracy, response times and eye-movements will be recorded. All sessions will take place at Kingston University and travel expenses will be reimbursed. All participants will receive a £5 book token as a thank you for taking part in this study. Please contact Elisa by email to request more information or to get involved: e.back@kingston.ac.uk

The Autism Research Group at City University London is currently carrying out research to better understand how memory and language skills change as children grow older and how this change might differ in children with various forms of learning difficulties and neurodevelopmental disorders (e.g., Autism). Their goal is to better understand which situations make learning sometimes difficult and sometimes easier for different groups of children, and how children's memory skills scaffold their language skills. Research such as this has the potential to inform teaching methods in order to help every child to learn in the way that is best for them. Children would be required to complete some tests in school and parents would be asked to fill in a questionnaire.

Each participant gets reward stickers after each task, and at the end of all the tasks, they receive a certificate of participation along with a £5 Amazon voucher, book token or small toy, whichever is most age appropriate. Parents also receive a £5 Amazon voucher for their time spent filling in the questionnaire.

If you are interested in helping with this research or would like some more information, please get in touch by e-mail and you will be sent an information sheet and a consent form to give permission for your child to be seen at school. You will be kept up-to-date with how this research is progressing. Please contact Sebastian Gaigg via email or by phone: s.b.gaigg@city.ac.uk; 020 7040 8544.

