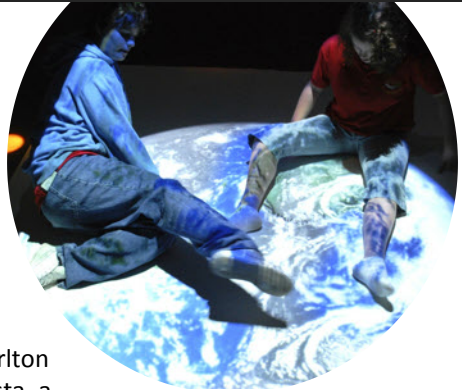


Changing school lives

Charlton School

Charlton School in the London Borough of Greenwich is using OMi technologies to engage their special education needs (SEN) students and introduce them to concepts and situations they haven't experienced before in a safe and controlled manner.



Rebound Therapy is one of the many exciting and novel ways that staff at Charlton School in South East London use OMi-Vista, a system that projects images that users can interact with. "It helps with balance and strengthens the core muscles," explained Emily Garwood, an instructor working with pupils with Autistic Spectrum Disorders (ASD) when talking about the regime of exercises and positions performed on a trampoline by students with a range of complex special needs, which have been enhanced through the integration of the interactive elements that OMi-Vista provides.

A white mat is placed on the bed of the trampoline onto which interactive animations are projected that respond to the pupils' movements. One of the most popular is pictures of the school's headteacher, and other senior managers, that explode when trodden on. Using OMi-Vista to simply project onto a surface has astonishing effects: by using a white umbrella, or even a parachute, students can see it from the underside, being submerged in waves, for instance. However, an integral TV camera picks up users movements and adds interactivity for a totally immersive experience.

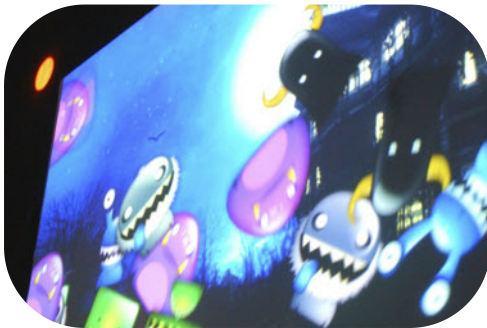
On Monday afternoons Year 7 and 8 students go on a sensory journey. The routine is the same each week: a sound track of music from around the world plays while props are handed out, and the projection on the floor mat changes to reflect the destination. As a globe starts spinning "*Leaving on a Jet Plane*" begins to play and everyone, adults and children alike, stretch out their arms to fly off to Ireland, the USA and Mexico. As they touch down in India, the music changes to

"*Shakalaka Baby*" and lengths of shimmering fabric are passed out to brush and enfold the students.

On the floor a rock pool shimmers and ripples, fish dart and crabs scuttle as Adam, a profoundly disabled child who has great difficulty moving independently, stretches out to touch them. The lengths of cloth blend in with the image and it is difficult to separate the real and the virtual as if waves are lapping over him. Although Adam's support assistant sits beside him, he needs very little help to move, such is the motivation to reach a ball, a lifebelt or a rubber duck as they drift past.

"It was craziness when we first started using it - they were all over it," Emily remembered of the KS3 group she works with, all of them on the Autistic Spectrum. "Then they had to learn turn-taking and language too. They had to learn to say which activity they wanted to do and who to do it with. Usually they are all very lively - really buzzing and bouncing - but with this they will sit on the mats and wait for their turn because they want it so much."

Alongside the floor projection system, Rachel Bevan, Head of Expressive and



Performing Arts, has also used OMi-Beam, a series of beams made visible with coloured lights that trigger musical and visual responses when broken or reflected. "We have composed music. We put audio clips on beams that are then played over the top of a background tape. It is actually very good when we have done performances. When you break the beam it triggers a sound and you get a picture."

Events at the school using the OMi systems have included outside groups too, such as Trinity College School of Music. Rachel explained. "The music students composed music starting from different shapes, each of which was projected onto the floor for the Charlton students to interact with." Whilst there are many activities that come with the projection system, templates are provided for users to make their own, a simple enough job once the resources are gathered together.

These innovative, interactive tools have quickly made an impact on the life of the school, becoming an established part of its work across

the timetable, in the after school clubs, and as extra-curricular activities. As Kathryn Stowell, Head of ICT reflects, "It seems like we've had it a long time. But we've had it just over a year."

To find out more about the Charlton School interactive projects, contact Katherine Stowell, Head of ICT at kstowell@charlton.greenwich.sch.uk



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