

## Virtual experiences making a real difference

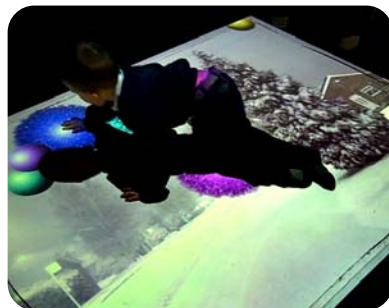
Queensmill special school for children with autism – Fulham West London

Mikey lies on his side, moving his fingers gently backwards and forwards and watching how the water moves with them. He mutters to himself, "bath," "baby," "water." He is completely relaxed, absorbed in taking a bath, yet he is completely dry, fully-clothed and lying on the floor of a darkened room at school, the 'bath' projected from above him.



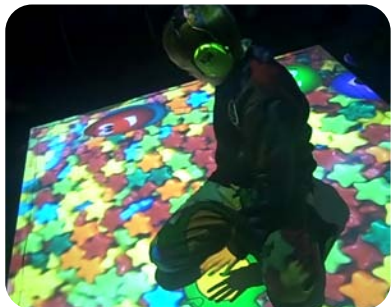
It was not long ago that Mikey was very resistant to going near water at all, let alone lie back in a bath and enjoy seeing the water ripple through his fingers. Staff at Queensmill School, in Hammersmith and Fulham, think the change has come about because of their omiVista interactive system, where an image projected onto the floor responds to movements detected by an integrated camera. "We used the watery ones to engage him," explains his class teacher, Joanna Dziopa, who is also the school's ICT Co-ordinator.

It has obviously had a remarkable effect, as, upright now, he wanders through a different image, a virtual pond, pushing lily pads out his way, and watching fish scurry off as his feet get near. Although when it is his turn to paddle in a rockpool his reluctance seems to return. Monica, a Teaching Assistant, explains, "He's spotted a crab in there," passing the turn on to Ibrahim, eight legged creatures being an issue that Mikey has yet to overcome.



Not so Ibrahim who runs through the pool, causing waves as he goes, then lies down at one end and watches a tiny silver fish circle his finger. Both boys are from a group of four from Pink class who are having their regular session with the 'moving floor' - as staff more prosaically refer to it. Oscar and Lily, the other two pupils present, are patiently waiting their turns, although Oscar sometimes has to be reminded to do so and is sitting holding the red, oval "Wait" card to reinforce that it is not currently his go.

Waiting patiently and turn taking are things that all primary aged children can find difficult, for this group it is even more so, as Queensmill is a special school, one of very few in London exclusively for those with Austistic Spectrum Conditions (ASC). As Joanna explains this classically involves a "triad of impairments," where pupils have difficulties with social interaction, communication, creativity and imagination. The omiVista system has had an impact in all these areas.



A Damascene moment happened for Head Teacher Jude Ragan the first time she saw pupils using the resource when attending a demonstration with a junior class. "Jamal spoke to me for the first time ever when he was on it. He said, 'Look at me,'" she recalls. "He speaks around me but he's never spoken to me before. So I thought, 'I'll have one of those.'"

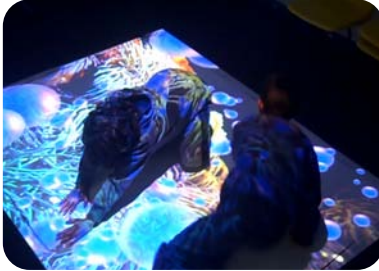
Since then the need to communicate when working with the 'moving floor' is emphasised, with pupils only allowed to take their turn once they have answered the question, "Whose turn is it?" either with "My turn," or with their name, using speech, signs, or symbols, which ever they prefer. They all know when it is their go through the use of a board with all their photos on it, which has a coloured frame placed around whoever is next on. This doesn't always follow the same order so students have to be patient, and alert to what is happening around them. "The first time we came in here they were all on the mat at once. Gradually they have learnt to wait," Jo points out.

Communicating, turn-taking, and focusing on what is going on is, for these children, "a lot of skills altogether," states Jadwiga Lesniak, teacher of Purple Class. However, as Oscar's constant, infectious, giggling shows, he thoroughly enjoys it, which can be very motivating.

"It fits in with our philosophy. We try and make the curriculum so motivating that we force the children to communicate with us about it," Explains Jude Ragan". We choose things that they love, and we stop them and we wait and they have got to communicate to get more. They see the purpose then. Why it is necessary to talk to someone else."

Often young people with ASC can be very self-contained, focused only on what they find interesting, not on what the adults around them want them to think about. However, with a system that is multi-sensory, that lets the children engage as they want, staff find that they are, "working to their strengths and preferred way of learning, but on our agenda. Which is," believes Jude Ragan, "a perfect mix for Autism."

It also removes some of the anxiety that children on the Autistic spectrum may experience when interacting with others. Play can be difficult for them as people are not always predictable. Jadwiga sees the 'moving floor' as providing a safe place for experimentation. "They don't always know how to play together," she explains. "Here they touch it, they see the result. It is them who decides what happens. They have much more control." A situation is created in which, "They feel they are free to do what they want - but it is structured in a nicely hidden way."



Her group of six boys from years four to six are focused on what is happening on the mat, despite the distraction of a music lesson going on next door. "Hands on knees," Marlon says, reminding everyone about 'good sitting.' "It is one of those activities where they are highly motivated to do things properly," notes Jadwiga.

It is not just sitting and waiting that is developed, but also the essential social skill of turn taking, as Marlon demonstrates in a game of, rather unconventional, virtual football with Brian. Instead of playing against each other they take turns to score, stepping aside for the other to take a shot. "They don't have a competitive bone in their bodies," explains Jude Ragan.

Generally, pupils with ASC find imaginative activities difficult, finding it hard to remove themselves from concrete situations to pretend ones. Yet in this room they seem to have no problem at all, as Mikey shows, clearly feeling warm and relaxed in his virtual bath. "It is a 'real thing'," says Jadwiga, reflecting on how her pupils have no problem with connecting the real life experiences with virtual ones, "As real as it can be."

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