

Making music physical – Adrian Snell

As Peter bounces into the classroom, his gaze falls on the Musii set up for our session and his eyes light up.

Looking a little like a bouncy castle, the Musii is a soft inflatable with three cones that produce music and light up when pressed, bent or wobbled. Peter, who is on the autism spectrum, finds it hard to keep still. But because this ingenious musical instrument is so engrossing and physical, he and I are able to engage in creating music for the whole session in a way that wouldn't be possible if he decided to spend his time distractedly wandering around the room.

Emma, on the other hand, is blind, has limited mobility and spends a lot of time in a passive position. She is hard to motivate, having got used to being dependent on others, but as soon as we lift her from her wheelchair and place her on the Musii, she comes alive. She beats it with her fists and uses every part of her body to make sounds. She loves making music on it with other children, which is very moving – there are not many occasions when she has the opportunity to interact with her peers.



The Musii's very shape invites participation

At the beginning of sessions, I assess the mood of the student. Knowing their musical ability and the types of sound and rhythm they respond to best, I set the Musii up via a touchscreen remote control, which gives me access to an extensive library of sampled sounds. This is easy and requires no training. Sounds range from pianos, harps and percussion instruments to a collection of outer space jingles and synthesised funk and dance rhythms.

I can also set the volume and the lighting program. The lighting is linked to the movements made by students as they touch the cones in different places. There are various settings: one will light up only the cones that are being touched, each in their individual colour, while another lights up all three cones at once. The colours are lovely and bright, especially if you black out the room.

The Musii encourages creativity, expression and communication. It can be played solo or in groups and is accessible to someone in a wheelchair with limited mobility. Sensors inside the cones react to the part of the inflatable that is being bent or pressed. Each change of movement generates individual notes on a scale, which allows students to create music simply by manipulating the cones.

There are currently 50 different soundscapes loaded into the Musii, all with different moods, and a special backing rhythm that teachers can leave on or turn off. Each cone, meanwhile, emits a different set of sounds. For example, if you pick the Classic Trio, the piano sound plays through one cone, the violin through another and the flute through the third.

The sensor sensitivity can also be set so that smaller movements make more notes or larger movements fewer. Crucially, you can adjust the pressure of the inflatable to allow for the physical strength of students. This means that a child with almost no independent movement can create the same quality of sound with the slightest touch as Peter, who is fully able and for whom I set it at its highest resistance. Whatever the setting, the Musii is excellent for developing students' fine and gross motor skills.

Children can also make all three cones move by sitting in the flat space that lies between them. This is big enough to hold three small or two larger children and encourages interaction and teamwork. Since it is impossible to hit a wrong note or play out of time, students get a huge sense of achievement as they play beautiful music in an ensemble together.

For some children with complex needs, the Musii might be a way of helping them learn about cause and effect. It is such a physical instrument, they can immediately see that their movements are triggering the sound and lights. At the other end of the spectrum, it provides a great deal of fun for someone with moderate learning difficulties who listens to fairly sophisticated music at home and wouldn't be satisfied with childish jingles. It is very motivating for all our students and enables me to combine physical therapy with music therapy.

As a plug-in-and-play instrument, any teacher or TA could take it into class for students to enjoy, although to get the most out of it obviously needs someone who has some musical background and understands its capabilities. There are endless applications depending on the person facilitating its use. It is an excellent tool for accessing the curriculum as well as developing more personal skills such as turn-taking and sharing.

The Musii is £2,490 + VAT, which includes a spare inflatable cover, a touchscreen remote control and two years' warranty. Watch a video of it in action here: <http://musii.co.uk>



Adrian Snell is a composer and a music therapist at Three Ways School in Bath, which caters for children with a wide range of special educational needs aged 4 to 19.