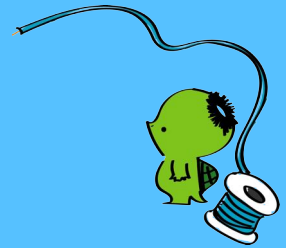


e-Wearables in Tenerife



Listening to the music from his tie El Valito

In November and December 2019 we, Dr. Enrico Bertelli and Dr. Yui Shikakura, were resident artists in Tenerife at the El Valito and Guaidyl Youth Centres. We worked alongside the charity Amigos the Gillian Banks, to deliver our e-Wearable project funded by this i-Portunus mobility fund.

We had the chance to stretch the project further, by organising a 4-day gathering in Italy with the Amigos. There, we examined and refined lesson plans, and made arrangements for an Erasmus+ funding bid, in an attempt to boost this project's legacy.

Project Content

We spent one full working week in each centre, delivering 30 hours of frontal teaching to 25 students, professional training to 5 youth workers and 3 volunteers from the Amigos. We invested 50 hours of R&D to develop new codes, soft circuit design and lesson plans. The final showcase required 2 full days for tech setup, rehearsals, delivery and social event afterwards, while the remaining 26 hours were used for the work in Italy and the write-up of this report.



Showcase in Guaidyl

YouTube: Conductive Music

9/10

El contenido era apropiado para los alumnos.



9.6/10

¿Disfrutaron los estudiantes del taller?



8/10

Los estudiantes afrontaron bien la nueva tecnología.



8.6/10

¿Planea implementar alguno de nuestros planes de lecciones?



Our typical project day included a 5-hour R&D, and a 3-hour teaching session. The lessons were carefully designed to cater for students from challenging backgrounds, based on our 8-year experience with [Conductive Music CIC](#). Each day included the coding hour, and a longer session on stitching, soft-circuit design, testing and design thinking. In parallel, the *Amigos* worked with the students to rehearse for the showcase.

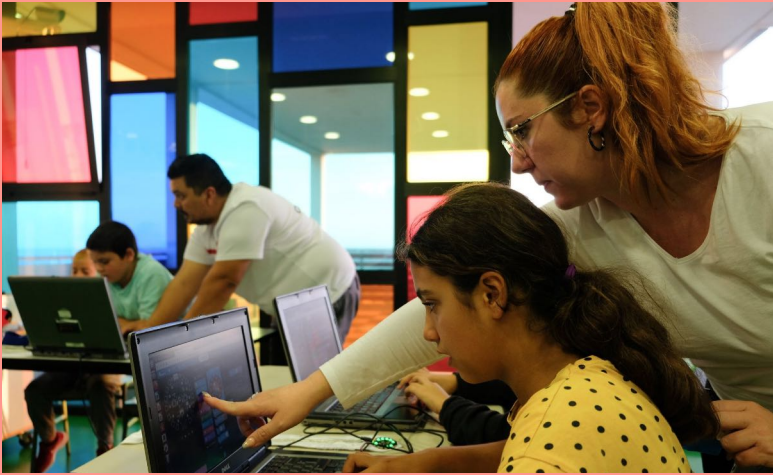
Each day had to be different to entice students and cope with their limited attention span. We gradually overcame the language barrier, thanks to our limited Spanish, and to the precious help of the youth workers. We adapted the content as the project unfolded, catering for a variety of skill sets. Behaviour management remained the most demanding of tasks, but we succeeded in creating a positive environment for the students to learn and thrive.



LED hat stitched by children at Guaidyl

10/10

Los maestros de Conductive Music impartió el taller claramente y cuidó a los estudiantes apropiadamente.



Coding excise in El Valito

The weeks culminated with the Friday showcases at El Fraile City Theatre and Guaidyl Centre. Our students were joined by 20 others, to take part in a catwalk, showing off the interactive ties and hats designed during the week. They also performed songs and dances choreographed by Gillian Banks of the *Amigos*. The parents' attendance was very good, with approximately 80 people between the two shows.

The role of the partners

We are very grateful for the omnipresent support of the bilingual staff from the youth centres, who supported us, even after-hours, for last-minute troubleshooting (stitching, testing, fixing, etc.), rehearsals and behavioural management.

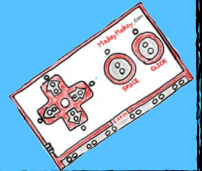
The *Amigos* were of paramount importance for project delivery. Gillian Banks and Martyn Howells arranged free accommodation, the showcases, liaised with the centres, and prepared the students prior to our arrival. They chaperoned us around Tenerife to look for materials to be recycled and upcycled. We spent a considerable amount of time discussing possible follow-up projects and led a daily debrief to improve the project as it unfolded.

Watch a video of our other projects!



Our Facebook posts :

El Valito



Our Facebook posts:

The showcase



¿Cuál sería el mejor seguimiento después de estos talleres?

Realizar un taller nuevamente, para que las nuevas tecnologías no sean actividades puntuales.

En caso afirmativo, ¿podría proporcionar algunos detalles?

Enrico y Yui nos mostraron música conductista el curso pasado, siendo muy atractiva para las trabajadoras y los menores. Grandes profesionales.

Buenos docentes. Gran control en el aula. Los menores aprendieron muy bien y rápido.

Directora di Servicio de Día El Valito



Our Facebook posts:

[Guaidyl](#)



Watch our tie tutorial



Lesson plans

bit.ly/STEAMw1

(change the number at the end until 8)



Son grandes profesionales. Lo recomiendo 100%



During our time in Tenerife, we better understood operations at the Centres del Dia. Open in the afternoons, these centres gather children from challenging backgrounds (from early years to teenagers), feed, wash, provide them clothes and then return them to their families. Thanks to them, poverty is not a limit, so children are not separated from their families, unless other factors sussist. The *Amigos* organise fundraising events for them, as well as a wide variety of activities ([see slideshow](#)) including English lessons, artistic activities like ours, farming and sport tuition.

Staff reflections

We approach each new project with an open mind, flexibly, keeping student attainment as our ultimate goal. At El Valito, the slightly younger students (10yo), were much more interested in coding and delivered a good choreography. On the other hand, the older students at Guaidyl (12yo), were much better at stitching and were very keen on programming the musical part of the garments, but not all of them wanted to perform. Luckily, peer learning was widespread in both centres, and this helped everybody reach their goals. The students liked their augmented garments, they proudly shared them with their parents, and friends.

Based on our observations, the students do not have many chances to do manual activities in their schools. Few knew how to stitch, none how to code. Most students engaged eagerly with us, but results were largely dependent on behaviour. Some of them could not read or spell properly but, thanks to our colour-coded coding system, we successfully bypassed this limitation.

If we were to re-design this project, we would create shorter sessions, with less in-depth knowledge, but a wider reach. We would also create a solution for the younger children (9 and below) who showed great interest and asked a lot of relevant questions, even if they were not directly involved.



Outcome and legacy

Our main goal was to deliver a new skill set to students. We enabled them to access a wealth of free resources and help with their personal and professional development. We only used free access software and open source hardware (F/OSS) with costs capped at €30 per unit to enable continuation. The youth workers voted us at 9.6/10. We recognise that continuing a project once the artist residency is over could be a challenge, so we arranged the donation of 10 laptops to the centres, providing internet access to everyone. As a result, Youth Workers were quite positive about implementing our lessons (8.6/10) and agreed even more (9/10) when asked if our content was appropriate for their students.

We have designed 8 lesson plans, which will shortly be transformed into drawings ([such as these](#)), to be used in our workshops in England and internationally. The Youth Workers in Tenerife said that those students coped well with the technology (8/10) and this encourages us developing further.

This project will be included in the book *Intercultural Sound*, currently under peer review. We have not been selected by the Kinoshita Art Centre in Japan, but have now applied to EMAP (EU Funding) and PACT (Germany). We are also preparing for a weeklong residency, followed by an international conference at the PGVIM in Bangkok (Thailand).



Stitching LED to felt : Guaidyl

We intend to follow-up our work in Tenerife with an Erasmus+ bid for staff training. We set out to share our skills with the Youth Workers and the volunteers of the *Amigos*. We intend to make this a yearly recurrence, to provide these students with an alternative perspective onto mainstream education. We want to inspire them to become active makers, and to show them alternative career paths which will help them realise their full potential.

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Thanks to
the all the
members of
Amigos de
Gillian Banks
for their
support!