



How does the Arcana Strum enhance access to music-making?

A partnership project between **TiME** (Technology in Music Education UK) and **NMPAT** (Northamptonshire Music and Performing Arts Trust), to look at how the **Arcana Strum** can enhance access to music making.

arcana
INSTRUMENTS

TiME
TECHNOLOGY in MUSIC EDUCATION



Supported using public funding by
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Objectives

- look at how the Strum can support a student to progress through the [Sounds of Intent Framework](#) (and therefore also [Trinity College London's inclusive exams – the Awards and Certificates in Musical Development](#))
- work with the Strum as part of NMPAT's Inclusive Ensemble
- create a case study, detailing any successes and challenges, and tips for other practitioners

Introduction

My name is [Rebecca Price](#), I work as a music facilitator, educator and tutor, and have worked with NMPAT for over eight years now, in music delivery for children and young people in both mainstream and with special educational needs and disabilities.

For this project, I have been working with a 16-year-old student at [Greenfields Specialist School for Communication](#) (GSSC) in Northampton, UK. Matei has a keen interest in music and is a regular attendee of our Inclusive Ensemble. Matei has tried lots of different instruments over time. On an instrument such as a guitar, he is able to make a sound, but has not yet developed the precision to play particular notes. Matei has a chair which supports him in a seated position, and this is what he has used for each session when we have worked with the Strum.

Learning the Strum

Matei first tried the Strum at the [TiME Conference in September 2022](#). He showed focus and enjoyment at making sounds with it, and this is one of the reasons he was chosen to work with the instrument. In November 2022 we had a tester session at GSSC; Matei, myself and Kate Rounding (Development Director, TiME). Again, Matei enjoyed making sounds by moving the handle, and we were able to use one of the alternate handles to best suit him. Matei uses the Strum on a table, with his chair tucked underneath. It became apparent that even the [3-keys pad](#) required more precision than Matei was able to have, and so in the next sessions we were to explore how Matei could work with the Strum using switches.

The Switch-board

The switch-board was created alongside Matei, making adjustments each session until we had what seems like the best design, which enabled Matei to use as many switches as possible with precision. The switches are positioned far enough apart from each other that Matei can play each one individually with relative ease, but with the potential for playing two switches at a time should Matei progress to playing more complex chords.



What happens in an Arcana Strum session?

WARM UP We start each session with a physical warm-up. This makes a huge amount of difference to how Matei is able to play. I focus on upper body/arm movements: reaching arms up high, extending fingers, reaching low and extending fingers, and holding arms in the middle. Matei seems to do well when we work on left/right individually at first, and then co-ordinate both sides together. We do this warm-up to the song 'Up like a rocket'.

HELLO SONG/FREE PLAY I sing a hello song which has cues to 'make a sound'. This allows Matei to interact in whichever way he would like, and allows me to see where he is at on the day. Matei will choose to sing, play with individual hands, or sometimes hands together.

PLAYING ONE HAND AT A TIME We then start some focused playing with individual hands. I use the song 'Can you play the ___ switch?' to name the different colours of the switches and to allow Matei to find and play them in his own time. Sometimes at this point, I will realise that the position of either the switch-board, or Matei's chair needs to be moved to allow Matei to reach all of the switches. This position can change a little from session to session, and so this song works as a really good check in to help ensure that the Strum is set up well for Matei.

With his left hand, Matei seems to be refining his grip on the handle (Matei uses the Y-handle). Initially we used the strap to help him to keep his hand in place, but now he has a way of gripping with his index and middle fingers opposing his thumb, which he uses fairly consistently. I sing a slowly/quickly song for Matei to play along with using just the handle (Strum on setting ii). Again, I use this song to see if any adjustments need to be made to the position of the Strum on the day, or if Matei needs support in making a grip on the handle.



Matei plays using the handle with his left hand

CO-ORDINATING THE HANDS As with any instrument, co-ordinating the hands is always the more challenging part. The Strum is similar to the guitar and also the string family (e.g. violins, cellos etc.) in that each hand does a physically different thing to the other. It is for this reason that I always work on one-handed playing first. When moving on to playing with both hands, I use songs that require just one chord for the whole song, so Matei can work on just using his right hand to press one switch, and his right hand to push/pull the handle. A lot of nursery rhymes provide familiar and short song options for practising this skill. Matei focuses very hard to play with both hands together, and so we do this in short bursts. It was only after a few sessions that Matei started to do this independently, and this is a big achievement for him. As Matei's ability and understanding of the Strum has developed, he has tried to play songs which require chord changes. For these I try to use songs that are very simple, or familiar to Matei, and choose excerpts with only two chords at first.

CO-PLAYING Sometimes we will 'co-play' the Strum. Matei will either play with left hand or right hand, and I will play the other part of the Strum alongside him. This way he is able to join in with more complex songs as we play together.

Challenges

Making sure that the switchboard was tacked down to the table was an important part of enabling Matei to use it independently. The Strum itself can move around when used on a table surface, I have experimented with different ways of securing this, and find that sticky-tac holds it in place quite well, although it still can move around. The Strum has strap buttons on each end, so these could possibly be used to secure it into place. The Strum times out and powers off after periods of inactivity, meaning that it needs to be reconnected via Bluetooth to the iPad. This can be overridden by holding down the 'Septachord' button, meaning it will not go into standby if left inactive for a while – useful when setting up a selection of instruments. (Note – please see attachment for 'Advanced Features')

Using the Strum as part of NMPAT's Inclusive Ensemble

The Inclusive Ensemble is a group that we hold roughly once per term. It currently has seven participants. Matei has used the Strum as part of two Inclusive Ensemble sessions now. Matei used the Strum in the sessions after having several one-to-one sessions.

Setting the Strum up in a new space takes just a little more consideration, as Matei needs a table/stable surface that he can use it on, as well as be able to get his chair near to said surface. We have experimented with a couple of different ways of setting it up, including using an orchestral music stand tilted flat but at a slight angle.

We gave Matei the role of playing the chords for the chorus of 'Walking on Sunshine', with Matei alternating between an F chord a G chord. Matei was supported/prompted by another session leader for this and was the first time Matei had worked with the Strum without me, a good step forward in Matei's Strum journey. It allowed him to join in with the group by playing a meaningful part in the accompaniment.

Using the Strum with the Sounds of Intent (SOI) Framework

Observing the way in which Matei reacts and interacts with music, it is clear to me that Matei has a connection to it; he understands it. I have seen signs of this in the way he responds musically with his voice, and I have seen this develop into his playing with instruments like the Strum. Matei may not show these signs consistently; as mentioned before, not all days are the same. And so it is possible that we can miss something that Matei does/knows. With instruments like the Strum, it is possible to help Matei develop musically. But how do we keep a track of this? This is where the Sounds of Intent Framework offers us a valuable method of formative assessment. It breaks down musical achievement into many component parts - and understands that these are not linear. For example, using this framework could show that an individual's understanding can be far beyond their physical ability. In one session I saw Matei play a particular chord on the exact beat of a song, and after that, move his hand as if to change chord at the appropriate place. This shows me that Matei understands, and can react to chord changes in a song, and that he is learning how he can play these. With the Sounds Of Intent Framework I am able to log these achievements, use them as a way of reflecting on sessions, and share them with other practitioners that support Matei. (Note: the ability to log performance details within the instrument is in development)

Trinity College Awards and Certificates in Musical Development

This SOI framework is now the basis of the new Trinity inclusive qualifications. This means that these observations, once logged within the SOI framework can count towards a qualification. The above example of Matei understanding and making chord changes shows him working at SOI level 3 or perhaps level 4. This small moment being observed could contribute to him working towards an Entry Level 2 or Entry Level 3 certificate. A bigger picture can be built, which could lead to Matei having the opportunity to earn a graded certificate – the same opportunity available to people of his age who are in mainstream settings.

Summary - What opportunities has the use of the Strum offered to Matei?

Since using the Strum, Matei has made clear progress. It has given me the opportunity to talk to him about chords, and I believe his understanding of these has started to develop. It has given him control over sounds in a different way to other instruments, to start to understand and use chords. Matei has been able to show me that he knows when to change chord within a song. It has also opened up the opportunity for him to play a more complex instrument within the Inclusive Ensemble, and to work with other practitioners to help him do so. It also has the potential for Matei to use in a performance, and this is something he very much enjoys doing. One last, but very important fact: Matei has enjoyed the sessions of music-making using the Strum, he has put in a lot of energy and focus when using it, and over the course of the sessions he has progressed in his ability to control the sound he makes using the Strum.



ADDITIONAL INFORMATION

TiME (Technology in Music Education UK)

TiME ([Technology in Music Education UK](https://www.timemusicuk.org)) is a global alliance of music educators, organisations and music industry partners with a mission to create a greater awareness of the use of music technology in education. TiME collaborates with experienced teachers and music leaders to provide valuable information on various music technology options. Our active involvement in the English National Plan for Music Education (NPME 2022) has supported the integration of Music Technology as a central component, recognising its potential to enhance music education and broaden inclusion. Working with the Northampton Music and Performing Arts Trust (NMPAT) and Arcana Instruments we have collaborated to learn more about how the Arcana Strum, an innovative alternative to the standard guitar, can support young people with additional needs to engage in progressive music making. This case study was supported by funding from Arts Council England. TiME offers free membership with access to high-quality resources and is supported by organisations including Music Mark, UK Music, MTA, ISM and many others. Sign up for FREE Membership now to receive the TiME newsletter and gain access to lots of useful free music technology resources, tutorial videos, presentations, classroom posters, blogs and more! www.timemusicuk.org/membership

Arcana Strum

The [Arcana Strum](#) was created to emulate the experience of playing a guitar. In 2015 the Arcana Instruments team, based in Tel Aviv in Israel, were presented with a challenge, they explained that “the Arcana story begins when a family of a young girl with motor disabilities came to us with a very special request. They asked that we help make her dream come true – that is to share the stage with her friends and make music together with them”. The Arcana Strum was founded by a team of musicians, engineers and designers who joined forces to help support this young girl, as well as opening access to music making for people across the world. Following rigorous testing, piloting and support from musicians (disabled and non-disabled) the Arcana Strum was created to provide a fully accessible instrument.

NMPAT

[Northamptonshire Music and Performing Arts Trust \(NMPAT\)](#) is a music and arts education organisation working across Northamptonshire and Rutland enabling music and artistic education opportunities for children and young people of all ages and from all backgrounds. It is the lead partner for the local Music Education Hub with responsibility for delivering the Government’s National Plan for Music Education. NMPAT runs a comprehensive programme of instrumental teaching in local schools and provides opportunities for children and young people to play in a range of ensembles, bands and orchestras. NMPAT has a strong track record supporting the musical development and ambitions of children and young people with SEN/D through several specialist programmes including the Musical Inclusion Programme of which Rebecca is a team member.

Reflections from NMPAT on Sounds Of Intent (SOI), Trinity Awards and Certificates in Musical Development and the Arcana Strum

“For so many young people in the UK and internationally, our system of music examinations is part and parcel of learning and playing a musical instrument. It is a system which provides clear progression routes and structures for learning.

Whilst there has been a great increase in the diversity of opportunities on offer through the main examination boards over recent years, embracing different styles, genres and instruments, including music production and technology, much of this content is still not easily accessible to those with additional learning needs, young people such as Matei. The advent of Trinity College’s Awards and Certificates in Musical Development based around the Sounds of Intent framework is a milestone that opens the door to those who would otherwise struggle to engage with the traditional system of instrumental examinations.

Rebecca’s work with Matei demonstrates the central role that Arcana Strum, and devices like it, can have in facilitating engagement with this new qualification. The design of the Strum means that a young person can start their journey using the device in a very simple and direct manner, whilst at the same time still being able to demonstrate the full range of their musical and expressive capabilities. Yet the unique design of the Strum means that they can also continue progressing, gaining confidence and understanding using the same instrument over time, thus deepening their experience of musical concepts and performance, whilst at the same time gaining accreditation that adapts to their needs and which relates to their perception of the world around them.

Whilst the project undertaken with TiME is just a first step, Matei has, in a relatively short space of time, made substantial progress and the Strum has in so many ways not only enabled his achievements but has also uncovered the innate musical skills and ability for artistic expression that Matei has always had.”

Simon Steptoe, Musical Inclusion Programme and Partnership Manager

Quotations

“I can anticipate the benefit that this equipment will have with a variety of other children - similarly with physical disabilities or a variety of different diagnoses - a larger group project with this equipment would be very much welcomed.”

Emily Statham, class teacher at Greenfields School

“Matei has always had a strong connection with music. He understands and communicates through music. Music has brought him satisfaction and joy. Through music, he has learned to be patient and listen to instructions. Also, I have noticed that his hands are much more relaxed after the music sessions. Using this equipment [Arcana Strum] has brought him a lot of concentration.”

Laura Mitea, Matei’s Mother.

LINKS

If you are interested in buying an Arcana Strum, for UK Sales please contact **Inclusive Technology Ltd:**

<https://www.inclusive.com/uk/catalogsearch/result/?q=arcana>

Email: inclusive@inclusive.co.uk

Tel: +(44) 01457 819790

Technology in Music Education UK (TiME): <https://www.timemusicuk.org/>

TiME Conference – <https://www.timemusicuk.org/conference-resources-2>

Northamptonshire Music and Performing Arts Trust (NMPAT): <https://www.nmpat.co.uk/>

Rebecca Price (Music Leader): rprice@nmpat.co.uk

Greenfields Specialist School for Communication (GSSC): <https://www.gsscacademy.org/>

Arcana Instruments/Arcana Strum: <https://arcanainstruments.com/product/arcana-instrument/>

Arcana accessories - E-Box: <https://arcanainstruments.com/product-category/accessories/e-box/>

Arcana accessories – 3 Keys: <https://arcanainstruments.com/product-category/accessories/3keys/>

Arcana accessories – Handles: <https://arcanainstruments.com/product-category/accessories/handles/>

Sound of Intent: <https://www.soundsofintent.app/>

Trinity College London – Awards and Certificates in Musical Development:

<https://www.trinitycollege.com/qualifications/music/awards-and-certificates-in-musical-development>

Arts Council England - <https://www.artscouncil.org.uk>

International distributors:

USA/Canada (free shipping): <https://www.rehabmart.com/product/the-arcana-strum-instrument-51336.html>

France/Belgium (ground shipping): <https://www.mobility-concept.be/>

<http://rnt.eklablog.com/arcana-strum-l-instrument-qui-imite-la-guitare-a213667515>

Australia: <https://www.linkassistive.com/>

New Zealand: <https://assistive.co.nz/product/arcana-strum/>

Italy: <http://www.musicasenzaconfini.com/>

Switzerland: <https://www.paraplegie.ch/activecommunication/de/>

Rest of the world: <https://www.arcanainstruments.com>



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