Music Education Hubs Guide to online learning

This is a guide for Music Education Hubs who are planning to deliver online music lessons to schools. It provides guidance for how to prepare for and deliver online music lessons, based on Hubs' real life experiences during the Connect: Resound project.

Learning instruments over the internet can be a really useful and engaging part of music education in schools. Pupils can learn from specialists not available on their doorstep, and transport, cost and logistics issues that can affect availability of lessons in rural schools, for example, can be overcome.

If your Hub is planning to deliver online music tuition to your pupils, here are a few hints and tips to help you:

Before you begin

Engaging with schools

Individual Hubs will be best placed to agree which partner schools or other settings could benefit most from online instrumental tuition and to cost this out accordingly. The technique may be helpful for a number of strategic reasons:

- Kickstarting interest in instrumental learning - 79% of parents whose pupils participated in Connect: Resound said that they would not otherwise have sought out instrumental tuition for their child

- Enabling cost effective access to instrumental tuition to remote rural schools, especially those with few pupils on the roll

- Enabling pupils to learn unusual instruments, or to access specialist or higher level tuition than is locally available

In some cases Hubs may choose to take a blended approach, and combine online teaching with face to face delivery. If all lessons are to be delivered remotely, don't forget to plan for the delivery of the instruments to the school!

Technical setup

You will need to decide what technical configuration will work best for you in delivering online tuition. The Connect: Resound action research project tested various configurations of a standard technical setup to deliver the online teaching, in conjunction with the video streaming software, Skype:

- Roland VR-3EX video/audio mixer and streamer
- 3 video cameras, 3 external microphones
- Internet enabled PC, using a wired broadband connection

The research team identified the following options as the most effective technical setups

- Internet enabled PC plus webcam (school) to Internet enabled PC plus Roland VR-3EX + 3 cameras + 3 mics (Music Hub);

- Internet enabled PC plus Roland VR-3EX + 3 cameras + 3 mics (school) to Internet enabled PC plus Roland VR-3EX + 3 cameras + 3 mics (Music Hub)

Whilst the first option, with just a PC and webcam at the school end, is cheaper, it will not offer the same depth of experience as multiple camera angles using the VR-3EX.

Hubs may choose to invest in several VR-3EX kits, keeping one at the teaching base and hiring the others out to schools. Alternatively, or subsequently, Hubs may prefer to encourage schools to invest in the technology themselves. The Connect: Resound report notes that the technology could be used across different subject areas - such as foreign languages - to enable remote access to specialists.

Detailed information on the technology used, the various configurations, and guidance on setting it up, is available at www.nymaz.org.uk/connectresound

Pupils

As with any music lessons, you will need to liaise with the schools about the pupils who are going to receive lessons, what their learning needs are, and identify a mutually convenient time for the lessons to take place.

For **Connect: Resound**, our pilot internet learning project, we worked with Key Stage 2 pupils, the majority of whom were beginners, learning a new instrument for the first time.

The teaching was done in blocks of lessons, with 20-minute one-to-one lessons and 30-minute small group lessons (three pupils per group) taking place in each school.

- **Consent forms** - Generally these will be created by the Music Hub for schools to circulate to pupils/parents. They can be useful as tools to inform and enthuse parents as well as simply gaining permission for participation in online lessons

- **Learning needs** - different learning and access needs may need to be planned for in different ways to face to face lessons, and music teachers will need to know in good time of any specific needs

Internet connection

- **Good Internet connectivity** - 1 Mbps (both upstream and downstream) is an absolute minimum, but faster is better, especially if other users are sharing the same connection. A wired internet connection is preferable to wireless. You can check the speed of your Internet connection at **www.speedtest.net**. We would suggest that you test the broadband connection speed, including the upload and download speeds. This may best be done by your ICT staff to get the most accurate reading. If other people in your building are using the broadband at the same time, it is worth bearing in mind that the available bandwidth will be reduced. **If you find situations where connection speed is an issue, you may like to try to minimise other internet usage, as this may help.**

- **Tech support and permissions** - Talk to your ICT staff as early as possible to brief them about the learning approach and requirements. We used Skype as the video conferencing platform for the project - whichever software you use, make sure that your teaching base, and the computer(s) you will be using on the project, have permission to access it. There may be restrictions or protocols in place on some local authority networks that Hubs will need to discuss with ICT teams well in advance.

Teaching Space

It is worth taking some time to decide on where the lessons will be best delivered. You will need a room large enough to hold all the equipment, and where you will not be disturbed during the delivery of the lessons, and where there is little background noise. You may also need to consider how well your teaching space is soundproofed so that your colleagues will not be disturbed by the noise of lessons, if you will be working from a site which is not usually a teaching base. Larger rooms may require solutions such as acoustic boards or foam tiles as sound can bounce around the walls creating a very 'boomy' sound that is difficult to comprehend at the other end of the line!

You will need:

- A couple of desks/large table

- Music stand and chair

- A computer/laptop that can run Skype, most computers made in the last 5 years will be adequate

- Audio visual equipment (e.g. Roland VR-3EX video/audio mixer and streamer, 3 cameras, 3 external microphones)

- Good power supply

- Wired broadband internet access

Also, do make sure the appropriate insurance is in place for any equipment you are using (such as VR-3EX and peripherals) and that you have somewhere secure to store it when not in use.

Support staff

Schools should identify an appropriate adult to supervise the sessions at the school end - this may be a Teaching Assistant, Music Co-ordinator or school governor or other volunteer (subject to usual safeguarding policy and procedures). This person can also help pupils in operating the equipment, focusing cameras as well as helping with instrument assembly, tuning etc with guidance from you.

Getting started

Set up a Skype account and make sure you know the details of the school's account and vice versa.

Set up the equipment (laptop/webcam and, if using, VR-3EX, cameras and microphones) in your teaching space. If these will be put up and taken down each lesson, make sure you have a practice run or two, and know how long it all takes! We have detailed setup guides that can help you, and an instructional video - you may like to have a phone, tablet or second PC handy if you wish to use the video to help you set up.

Get in touch with the school in advance to decide who will call who on Skype to commence each lesson, confirm the details of the pupils and so on - make sure you have a telephone number handy for the school in case of any connection problems.

Some schools and Music Hubs may choose to have an introductory face to face lesson to say hello and teach the basics of assembling and holding instruments - but we found it all worked very effectively online.

Make sure you have liaised with the school so that they have everything ready in the room for the students:

- music books

- practice diaries

- instruments

- accessories such as reeds, shoulder rests etc

- music stands

If necessary, double check that internet use in the rest of your building will be kept to a minimum during the lesson, especially if your connection speed is at the lower end.

Teaching tips

- **DO** practice with the technology you are using, so that you make best use of the multiple camera angles and position the microphones correctly

- **DO** look at the setup video and Connect: Resound Report to help you with setting up and getting the most from the technology

- **DO** remember that you can ask the pupils to switch between different close-up or full image camera views at their end, or change the angle of the microphones to aid your teaching

- **DO** establish a protocol for assembling and tuning instruments in the first lesson, making sure the support person at the school end is confident in supporting the pupils.

- **DO** keep a log of what does and doesn't work in terms of teaching online, and using the equipment. The more we know about how the technology works, the better we can all make the learning experience

- **DO** be creative about problem solving. Connect: Resound tutors found apps online to help with tuning, and got pupils to clap the beat in group lessons to overcome the time lag issues which prevented the tutor from doing this remotely.

- **DO** start each lesson making sure that you can hear the pupil(s) and they can hear you!

- **DON'T** forget to refer to the technical support guide if you get stuck

And finally!

- Check in with the named adult after each lesson

- Do remind pupils to bring in their instruments and books each week

- Prepare the room and equipment in good time each week

- Let your ICT support people know about any issues with connection speeds or reliability

- Make sure you know what technical support is available to you and use it - even if a problem is minor it can affect the quality of the lessons and is usually easily resolved.

Further resources

The Connect: Resound website hosts a number of useful resources to help you:

- Instructional video for setting up and using the VR3-EX, microphones and cameras in your classroom

- Informational video about online music teaching

- Technical support guide explaining how to set up and use the equipment for online music lessons

- Three hour-long programmes featuring live performances and behind the scenes footage of classical, rock, pop and folk musicians presented in partnership with Musicport, Grassington and Harrogate International Festivals

- Insights and case studies from the Connect: Resound team

- Useful links to support all aspects of digital music education

- Research report about our experiences of online music tuition