Distance learning: planning and delivering live lessons

KS4/5

David Guinane

David Guinane is Head of Music at Beaumont School in St Albans. He has written two books on music education, as well as resources for exam boards, *Music Teacher* magazine, the BBC and other publishers.

Introduction

Teachers have been thrown head first into the world of distance learning. We've been scouring the internet for resources, preparing tutorial videos and grappling with features of Google Classroom or Office 365 that we didn't know existed just a few weeks ago.

Above all, we need to make peace with the reality that however hard we try, nothing we provide at a distance can come close to the core classroom music experience. We just have to get as close as we can, while also looking after ourselves and our families during these unprecedented times.

This resource looks in detail at providing live online lessons – essentially video conferences involving you and your students, with the aim of delivering musical content, and fostering some form of music understanding.

In practice, live lessons are more suitable for older students, predominantly KS5, and perhaps KS4. This resource tackles the planning and delivery of these lessons, as well as considering some of the limitations and opportunities afforded by this approach.

Disclaimer

Depending on your setting, resources and school policies, not all of what's detailed below will be applicable. However, hopefully some of the principles discussed will inform your work. For reference, our own school set-up currently looks something like this:

- Google Classroom (alongside staff and student email) is used to administrate the setting and completion of work.
- Google Meet is used to conduct live lessons.
- At KS3, the majority of work involves answering simple questions, as well as project-based work on a web-based DAW/sequencer (eg BandLab or Soundtrap).
- At KS4, students are working on coursework (performance and composition), as well as watching pre-recorded 'lessons' (more on these later in the resource), which require the completion of a range of tasks.
- At KS5, students are completing coursework as above, but take part in two 90-minute live lessons per week, covering exam content. These lessons take place during the day, when their timetabled music lessons would usually take place.

Technical considerations

It's likely that your school has provided some specific training on the distance learning 'ecosystem' you have at your disposal: the most common platforms are those provided by Google (Classroom and Meet) or Microsoft (Office 365 and Teams). Aside from the specific technical details, the most important thing to remember is that the conference software is designed for a business setting, so the traditional teacher/student hierarchy does not apply. In other words, your students will most likely have the same controls as you do!

Every teacher (and every student) will be working with different equipment, in different locations, at different times. However, as music educators delivering lessons, there a few subject-specific considerations that will apply in the vast majority of cases.

Cameras

I'm going to focus on sound in this section, as a built-in laptop camera will suffice for the vast majority of users when it comes to visuals. A camera is optional, and can be turned off, but I would recommend using video when possible, as students will invariably find it easier to engage if they can see the face of the person talking. So much of our basic arsenal of teaching skills are lost in the move to distance learning (gesture, movement, position in the class, etc), so it becomes all the more vital to focus on the tools we still have (tone of voice, facial expression, and so on).

When using a camera, it's always wise to check the picture first, to ensure nothing questionable or inappropriate is visible to students (which could be anything from dirty dishes to underwear on the airer, depending on location). I would also recommend informing anyone else in your household if you're planning to deliver a live lesson, to prevent any unwanted cameos during your session – though my children have on occasion presented a welcome distraction from essay planning in a live lesson.

Hardware

A basic set-up: laptop microphone and speaker

Most modern laptops include a built-in microphone, as well as basic speakers. Sound quality will vary depending on the model, but in almost all cases you will be able to speak, be heard, and hear others when they are speaking. Desktop machines are less likely to have in-built speakers or microphones, so will need external solutions.

Upgrade No. 1: headphones

Using the basic set-up outlined above, there's a danger that sound coming out of the speakers will be picked up by the microphone, come out of the speakers, be picked up by the microphone again, come back out of the speakers, and – well, you get the idea.

Most modern software is fancy enough to prevent a feedback loop, but audio problems can occur from time to time. The easiest way to counter this is to plug in a set of headphones. This will increase the clarity and quality of what you hear, and because of that, students should be encouraged to wear headphones when completing distance learning in music. Any headphones will do.

Upgrade No. 2: microphone

Upgrading your microphone can improve the fidelity of the signal that's sent to your students. In other words, it can make your voice sound clearer. I find crackly speech hard to listen to over long periods of time, and I'm sure my students do too.

The cheapest USB microphone will almost certainly offer an improvement over a laptop's built-in offering (look for one well-reviewed by podcasters as a starting point). As your budget increases, you should be looking for a **condenser microphone** to capture your natural speech as clearly as possible. These are available to connect directly to your computer via USB, as well as with a traditional XLR input, which leads us on to...

Upgrades Nos 1 and 2 could be achieved using a 'gaming headset', if you happen to have one or would consider buying one.

Upgrade No. 3: the audio interface

I was lucky enough to be able to borrow a few key bits of equipment from school before we closed. This, combined with some personal items, created my home set-up for distance learning. I use an audio interface, connected to my laptop via USB, with a condenser microphone connected via XLR into the first channel (which has phantom power, a pre-requisite for condenser microphones). My microphone sits on a desktop stand, and I connect my headphones directly to the audio interface. This produces the best audio quality in my ears, and the ears of my students.

In addition, it's very useful for recording in school. It requires the right equipment, and some technical know-how, as you need to specify the audio input/output in your computer's settings. Sometimes your video conferencing software might choose a different source, which will need changing. If you can manage this, it provides the best quality audio.

At the end of the day, however, these options affect the quality of speech, but not the music (more on that below), or the teaching. As such, they are not the most important factor, but they remain available options to improve sound quality.

Playing music

During a lesson, you may want to play music 'live' to your students, such as isolated chords or melodies on a piano or guitar. There are a few ways of doing this:

- Set up your laptop near a piano/keyboard/other instrument, and use the in-built microphone to pick up its sound. Bear in mind that the quality of what students hear is dependent on the quality of your set-up, so I'd recommend this method if your microphone is of a reasonable quality.
- If you're using an audio interface with multiple inputs, you could connect an electric instrument (such as a keyboard or guitar) to another input on the interface. This would send the signal directly to your students alongside your voice, in the highest possible quality.
- Connect a MIDI device, and open up a DAW (such as GarageBand or Cubase). Select the sound you want on a new track, and use the MIDI device to produce sound. This will still go through the microphone to students, but does give you more flexibility in terms of timbre. I've found that using a DAW can create conflicts with an audio interface, creating hum at best, and signal problems at worse. It is best to test this in advance.
- Pre-record examples and send them to students. This removes potential technical issues, but requires meticulous planning, and doesn't give you as much in-lesson flexibility.

Listening to music

Video conferencing software usually only allows one input – the microphone. Therefore, playing music will have to come out of some speakers, into the microphone, through the internet, and out of some speakers at the other end.

If you're wearing headphones, as recommended, this is very difficult to achieve. In testing, there's too much quality lost this way, making it an ineffective way of playing music. Playing music as part of lessons is such an integral part of teaching, and something that is a struggle to recapture in live lessons (how can you teach music without hearing music?).

The best solution is dependent on equipment. If you have an audio interface with multiple inputs, you could route audio from a phone or an iPad into one of the channels (but not the one the microphone is plugged into). This would send the audio directly to students, preserving quality. This needs a little technical know-how, and some testing, but it will provide the best solution.

The next best solution is to pre-prepare musical examples, which students listen to through their own speakers or headphones. The two obvious solutions are YouTube playlists and/or Spotify playlists. These can be sent out in advance, or the link can be shared at the beginning of a live lesson. Planning a sequence of learning to incorporate student listening is key. It's a good idea to note down specific timings for different pieces of music in advance of the lesson, in order to quickly tell students to listen to a work 'from 1:15 to 4:23', for example.

This problem need not exist in pre-recorded lessons, which we'll come onto at the end of this resource.

Planning

Everything works. The students can hear (and hopefully also see) the teacher. Now what? We're so far outside of our comfort zone in a live lesson that it's easy to forget how to actually plan and deliver a lesson. Here are some guiding principles:

Plan the learning before you plan the logistics

You can set yourself up with the best possible equipment, tabs full of Spotify playlists, and the best-looking presentation you've ever made, but if you don't have a clear sense of what you want your students to learn (and how they're going to reach some level of understanding), your lesson will suffer. Remember to keep student learning at the forefront of your planning, despite the unfamiliar circumstances of the delivery.

This bears repeating: **plan the learning before you plan the logistics.**

Direct instruction is important, and effective

The video conference set-up naturally suggests a 'lecture-based' format, so don't shy away from talking through a presentation if appropriate. When you 'share your screen', students will usually see your screen alongside a smaller video of the presenter, which can make for an effective facsimile of a lecture. Use your mouse as a pointer, and incorporate guided listening, or supplementary videos, into your delivery if appropriate.

You don't need to 'teach' all the time

Much as we would in a classroom setting, don't be afraid to set students work to do independently within the lesson. Give them 20 minutes to complete some tasks, or five minutes to listen to a piece, or a specific passage of music. You could get them to collaborate via an online whiteboard, or a Google Doc that they can all edit.

Seek student feedback

If you want students to do some targeted listening in order to teach a particular concept, you can seek feedback in a number of different ways. If using video, you could display all feeds (by changing layout) and ask for thumbs-up, or five finger feedback. You could ask students to put a quick message in the conference chat when they've completed a particular task or understood a particular concept.

Consider home learning and homework

When planning home learning, ask yourself the same questions you always do when setting these tasks. Consider the implications on your marking workload, and when you want it to be submitted, especially if the work is intended to inform future planning. Be clear about the format and submission method you expect (email/Google Classroom/a shared online document). A consistent approach will save lots of time when going through students' work.

An example lesson
Here is an example live lesson that I taught to a Year 12 class following the OCR syllabus.

Lesson context: AoS6 (Innovations in Music). Student have previously studied minimalism through the 'process music' of Steve Reich (*Drumming*, *Piano Phase*) and Phillip Glass (*Music in Fifths*, *Two Pages*). This lesson will move on to looking at 'post-minimal' styles and the music of John Adams, focusing on the pieces *Short Ride in a Fast Machine*, *Phyrgian Gates* and *Shaker Loops*.

Intended learning: Students will understand the musical features of the John Adams works studied, making connections between this music and the previous minimalist works studied. They will understand the range of musical influences on Adams' work (minimalism, late Romantic orchestral music, etc.).

Pre-lesson tasks: Students are instructed to listen to *Short Ride in a Fast Machine* and *Phyrgian Gates* in advance of the lesson.

Lesson outline:
- Students add virtual post-its to an online collaborative whiteboard (I used Google Jamboard, but many alternatives are available): key features of minimalism, based on previous learning.
- Teacher feedback on student suggestions.
- Work through presentation on John Adams's music: explain musical features while referring to presentation, ask students to listen to a specific section of a piece to hear this feature in context, students comment in the chat when they have heard and understood. Repeat.
- Student complete short tasks based on *Shaker Loops*. Provide recording and score.
- Break.
- Students feed back answers: unmute specific students and ask targeted questions. Get general feedback in the conference chat. Give teacher feedback on responses.
- Return to presentation for learning summary, set home learning task.

Home learning: Listen to a related work (specified) and produce a short piece or writing detailing similar features in the work, comparing them directly to work studied in the lesson. Students will demonstrate understanding of the musical features 'taught' by hearing and describing them in a new musical work (Steve Reich: *Electric Counterpoint*, third movement). Set work via Google Classroom, using an editable Google Doc.

Preparation

Though planning learning is by far the most important aspect of your lesson, the novelty of distance learning requires a bit more logistical thought and preparation, in order to ensure your lessons run as smoothly as they can. Here are some issues you may wish to consider when preparing lessons.

Setting yourself up (any by extension, setting your students up)

Before delivering a live lesson, you should spend some time ensuring all material you wish to present is quickly and clearly available. This could include Google Classroom posts (or equivalent), student worksheets, presentations, YouTube links, Spotify music, or any other sites you wish to display during the lesson. There's a danger of opening up too many tabs, so hyperlinks inside a presentation, or as a list on a Google Doc, can help make this clearer.

By the same token, giving students a list of tabs to open or materials to have to hand can also be a huge help in streamlining transitions in your lesson. You could post or email the conference link alongside a list of items for students to prepare: have a notepad, a pen, your instrument, Spotify open on your computer or phone, and open the following browser tabs.

Record the lesson
Don't forget to record the lesson (if the functionality is available on your conferencing software). The ability to return to the content will be invaluable for your students, as well as providing excellent CPD for teachers. In addition, your school may insist on recording live interactions with students as a precautionary safeguarding measure.

Compiling and organising resources

The nature of live lessons is that you'll draw on a number of sources (presentations, websites, sound, video, etc), which can easily become confused, or lost as soon as the lesson has ended. The same problem exists in a regular classroom situation.

A Google Classroom stream is a central location for these links when delivering the lesson, but they can easily become lost as more posts appear on the stream. Posting links in the conference chat is useful when directing students to a particular video or website, but they are difficult to access after the lesson.

In our setting, Google Sites are used to compile all resources on a particular topic, so students can access these in a clear, organised fashion at a later date. A well-organised 'class notebook' on Microsoft OneNote will achieve the same aim. Both solutions are user-friendly and quick to produce; just be sure to double check the sharing settings for the sites or notebooks.

For those looking for a more powerful solution, Notion (**www.notion.so**) is a web and desktop app suited to the creation of wikis that could serve as a well-organised reference system for teachers and students.

The same principles apply to the distributing of pre-lesson materials, which can include listening (as mentioned earlier), reading, or simple recall tasks. The nature of distance learning has put a renewed emphasis on the power of pre-lesson learning.

Speech or chat? One, both, or neither?

As we've previously seen, most video conferencing software in use by schools in the UK doesn't allow you to enforce the traditional 'teacher-student' hierarchy. Voice chat can become a bit of free-for-all if not properly considered and planned (a bit like some classroom lessons). Planning when students will be muted or unmuted can help. They can be muted when you're delivering direct instruction, unmuted for a collaborative task, or students could remain muted and only use the chat function when feeding back on a task.

The chat function is useful, but answers can lack development or depth if typed as quickly as possible. Asking students to mute and unmute themselves one by one can be effective for individual questions, but it's common for a student to forget to mute after answering, creating confusion that can disrupt the lesson (this process can also slow the pace of a lesson).

Above all, organisation and careful thought is required to ensure live lessons are successful, whether thought is directed towards pedagogy and planning, or preparing resources and digital tools effectively. Without this preparation, we run the risk or coming across as the digital equivalent of the teacher who rushes into the classroom, clutching a mass of disorganised photocopies, spilling coffee on the floor, before hurrying back to the office five minutes later to collect a misplaced resource (though, in the circumstances, few can blame us for occasionally embodying this teacher stereotype).

From personal experience, I find myself replying to messages in the chat by typing, forgetting that I can speak and that everyone will hear me.

Appendix: Pre-recorded lessons

A live lesson has an immediacy and personal touch that, though incomparable to the classroom setting, will benefit students adapting to distance learning. However, for a host of reasons, delivering lessons live is not always possible. A pre-recorded lesson can offer benefits over written task instructions, and can remove some of the technical issues presented by the live setting.

The most straightforward way of producing a pre-recorded lesson for students is to start a conference call in which you are the only participant, present your screen, press record and deliver a lesson. However, aforementioned music-specific problems with audio and playing music are still present.

There are companies offering specific screen-recording software that offers advantages over the method described above. Loom (**www.loom.com**) is currently offering its services for free to all educators. Loom can be installed as a piece of software on your computer, or as a Chrome browser extension. It allows you to record your screen and your voice, accompanied by a small video of the presenter in the corner of the screen. In addition, enabling 'tab audio' (Chrome extension) or 'system audio' (desktop app) routes any audio played (via YouTube, Spotify, etc), directly through Loom, with no quality loss. The videos are stored on Loom's servers, can be trimmed quickly after recording, and easily shared with students.

Pre-recorded lessons (or parts of lessons) are particularly effective when modelling a task, or giving direct instruction without student interaction. Depending on the circumstances, it may be worth considering a combination of live and pre-recorded lessons, to provide the most effective sequence of learning for students.