

Music Education Steps Out of the Classroom

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Music studies in one's own home, independent of time or distance, sounds good, too good to be true. It has certainly been possible in the past to practise an instrument at home, but what if you could get your study material via the Internet or by E-mail or maintain contact with your teacher and other students using modern technology? So far, there is no way to avoid having everyone present in the same place for a string quartet rehearsal or a choir training session but there are, nonetheless, certain possibilities for distance learning in the study of music and some have already been tried.

The Starting Point

Studying music, at any level, has been very traditional in comparison with other subjects. Music teaching is thought – for many good reasons – to be so complex and so dependent on interaction, that distance teaching is impossible. Furthermore, there is a quite natural reluctance to change one's established teaching habits and to face the necessary commitment of time, within a busy schedule, to do so. Still, the most obvious reason for this situation is the insufficiency of the technology, which has not been designed for musical contexts. In normal videoconferencing, for example, video has taken priority over audio, a situation which is obviously undesirable for music teaching.

Quite recently there has been a remarkable progress in the techniques that facilitate the transmission of music teaching from one place to another. Since these advanced techniques are so new, rather little experience of music distance learning has been acquired. The shortage of experience is, of course, both technical and pedagogical. The Sibelius Academy, the Universities of Helsinki and Oulu, and also Orivesi College have undertaken a few projects which have demonstrated that distance learning is, in fact, a viable option in music education.

Some examples

I shall divide these projects into three categories according to the techniques employed:

1. Master classes and distance concerts, using specially designed videoconferencing techniques.

– Last year Mr. Pinchas Zuckerman and Ms. Vera held six master classes for violinists and pianists of the Sibelius Academy using videoconferencing (VC) with up to five separate ISDN-connections, thus achieving the maximum possible audio and video quality.

– The technology for VC with real-time MIDI transmission was released in the summer of 1997 and the first music lessons (for example, piano tuition) which employed this method were held last winter. The first public concert using this innovation was held last January, with the singer and pianist performing in different geographical locations. At the Sibelius Academy, a few students are making use of this technology in their music education studies.

2. Teaching music to secondary school and high school using ordinary VC-technology.

– Our third academic year of teaching music by VC to Utsjoki (situated in the northernmost

part of Finland) is in full swing, and we have attempted to develop various pedagogical and technological solutions for this complex teaching environment.

3. Continuing studies using netconferencing.

– Over the past few years, attempts have been made to combine ISDN-based technology and audiographics for the purpose of music studies. With the support of researcher Philip Donner and the Helsinki Telephone Company, we initiated a project last autumn (1998) to develop a netconferencing environment for a course of 'musical arrangement' at the Sibelius Academy Continuing Education Centre. (The term "netconferencing" seems more appropriate in this context than "audiographics".) The course is still ongoing and I shall publish the results of this and previous projects in a future paper: "Music distance learning – research into the pedagogical aspects of music distance learning and its technical solutions in a netconferencing environment".

Project Overview

Technically, the most demanding task is the transmission of sound. As mentioned earlier, good audio quality has not been a major concern in non-musical ODL (open and distance learning). Videoconferencing systems cut any frequencies above 7 kHz, giving only slightly better monaural quality than a normal telephone. Both the microphones and their placing are typically planned for speech transmission. Furthermore, television sets normally have poor quality speakers, the acoustical spaces at either end of the transmission are not optimized for capturing or listening to music, and so on. The early projects mentioned above have either used the best VC-system available or have sought alternative solutions with compact and cheap MIDI-technology. MIDI is a standardized method of transmitting musical information from one synthesizer to another. This means that we can process music at the sound-quality level of synthesizers. For the best results, we have used MIDI-equipped pianos that can send and receive MIDI-data. Although simultaneous playing by geographically separated participants is impossible with either of these systems, they still have potential for the teaching situation and, in the case of MIDI-technology, also for piano concerts.

Netconferencing technology is taking its first steps in music studies. It is accessible to private persons with a decent PC and an ISDN-connection. With the help of the MS NetMeeting application, the student can connect their PC to a videosever, thus making it possible for teacher and student to share a common real-time onscreen "blackboard", multipoint audio and (with the MIDITutor application) high quality musical sound. It is essential to employ a combination of different techniques in order to achieve the best results. The establishment of a successfully functioning distance learning environment must be supported by a suitably balanced blend of telephone, E-mail, Internet and netconferencing.

Pedagogically, it would appear that distance learning has been much easier for students to adopt than for teachers, organizations or the technology. The opportunity to receive instruction in specific subjects or (in isolated places like Utsjoki) to receive any instruction at all, the chance to study without travelling and even the attraction of the new technology itself can motivate pupils and students.

For the teacher, problems naturally vary depending on the technology and the combination of synchronous and asynchronous teaching that has been attempted. In asynchronous connections (using fax, E-mail, Internet, etc.) the problem is that teachers do not have experience of how to give information and instructions which are simple and unambiguous

enough for self-study. Also, the extra time needed for the delivery of teaching material may be initially disconcerting.

In synchronous teaching (netconferencing, VC) communication has to be approached in a new way. Maintaining contact differs very much from the face-to-face situation. In music teaching (with VC) this means that the teacher needs to give more responsibility to the pupils or students than he or she is used to doing in traditional classroom methods. This actually works better than teachers normally expect. The time delay of VC makes playing by the teacher inefficient, except perhaps for giving cues or for first-time training. It is impossible to evaluate students while one is playing oneself. In netconferencing MIDI time delays are often in themselves negligible, but problems may develop during the transmission over the Internet. Therefore one cannot expect the ideal to be always attainable.

Summary

To date, there has been rather little experience, anywhere in the world, of open distance learning for music studies. Our current and future work involves the development of pedagogy and technology appropriate to this field. We are also beginning to train teachers and students. Students in Music Education Departments are, for the first time, gaining some experience of teaching with videoconferencing and netconferencing; yet there is still no training model for the use of open distance learning. The attitudes of the teaching staff towards using this new technology are, in general, positive but distance learning is very much an unknown quantity. As staff become aware of the possibilities and gain more experience, their appreciation of the potential uses of distance learning within a music educational context will also grow.

The term "distance learning" is a bit misleading. Certainly there is a "geographical" distance between teacher and students, but these projects have convinced me that there need be no "psychological" distance.