

## Starting a computer music laboratory

The following article was written by Briona Gill, music teacher at Chatswood High School. Chatswood High School is a member of the SoundHouse™ Alliance, an organisation dedicated to the pedagogical applications of music and multimedia technology. As a member of this alliance, the school has a computer laboratory dedicated to sound and multimedia production. Briona is manager of the SoundHouse™ at Chatswood High school and has a wealth of knowledge and experience in music technology.

### MIDI keyboards

Having MIDI keyboards that are permanently set up is the most desirable situation. If other subject areas share the laboratory, a *roll out* tray is recommended. Figure 1 shows a Chatswood SoundHouse™ workstation; the keyboard can be pushed back in and the pull down cover can be locked for security purposes. This system also blocks student access to power and MIDI cables.



Figure 1 Chatswood High School

If a permanent set up is not an option, controller keyboards that are USB powered are suggested. Controller keyboards (sometimes called dummy keyboards) take their sound from the computer. If the intention is to also use the keyboards in the music classroom, keyboards with onboard sound should be purchased. It is now possible to purchase cheap controller keyboards that also have an ASCII (QWERTY) keyboard, very useful if desk space is limited. A MIDI breakout cable (PCs) or a USB MIDI interface (Macs and PCs) will need to be purchased for each workstation.

### Computers

At the time of writing the computer specifications for the 2005 Technology for Learning Program had not been released. Computers (one point PCs only) in the former Computer in Schools Program were not able to run advanced music software. The integrated sound needed to be turned off and a soundcard needed to be installed.

Many teachers who attended curriculum Teacher Professional Learning courses at Chatswood in 2004

complained of being given second or third hand computers. Slower computers will run MIDI but will struggle (or crash) with audio work. From 2005 the DET will purchase rather than lease computers. It is important to clearly define your needs when requesting computers; compromises are inevitable, as all subjects would like new computers. A shared venue between the Creative Arts or the Arts and English is feasible as these subjects all have multimedia components.

Starting a new laboratory raises other considerations:

- can the schools IT infrastructure support an additional laboratory?
- installation and ongoing costs
- rooming and security
- are current staff members able to maintain the room?

Positioning computers against the walls enables the teacher to be able to easily see all student workstations. A disadvantage of this layout is when using a data projector some students will have to turn to see the screen. Having the workstations in rows is a more expensive installation due to cabling and OHS issues but resolves the screen problem.

### Software

Long term planning for future software purchases and upgrades is vital. New titles will continue to become available, however the genres will remain stable. The current genres are: Sequencing, Notation, Audio and Computer-Assisted Instruction (Drill, Flexible Practice, Guided Instruction, Exploratory, Creative, Games). Many titles represent more than one genre or genre sub-group.

The Chatswood High School SoundHouse™ has just finished its second 3-year plan. Six years ago my priority list was as follows:

Year 1

1. A site licence for a MIDI/Audio sequencing package that also had reasonable notation facilities.
2. One copy of an advanced notation package.
3. Computer-Assisted Instruction site licences for Stage 4 students—two were selected. These two titles were inexpensive, have not needed to be upgraded and are still being constantly used.

During the 2nd and 3rd years additional software purchases were made. A full site licence for our notation package was obtained in two stages: audio editing software was introduced (one advanced copy and a licence for the 'cut down' entry level version) and an additional creative title was purchased for Stage 4 and 5 students.



Our second three-year plan coincided with the SoundHouse™ Association's curriculum development program. This meant that our industry-based partners (Intelliware and Roland) were prepared to further subsidise our purchases. For this reason we are now able to run an extensive array of titles and introduced external digital recording facilities. The original 3-year plan had envisaged upgrades to our advanced software and a computer-assisted instruction title that was suitable for Stage 6 students.

### Peripheral devices

Mentioning headphones and adapters to a music teacher will usually produce an anguished expression. Chatswood's first bulk headphone purchase was a disaster: they were approximately \$20 each, fully covered the ears, could be cleaned and reproduced an adequate sound. The students were reasonably careful with them, however they were not designed for the rigours of a school environment. Our second bulk purchase has been more successful but also more expensive.

Our adapters were starting to 'disappear'. Each workstation now has a cheap transparent pencil case for adapter storage. These cases are numbered and checked at the end of each lesson.

If students will be sharing a workstation, placing mouse pads on both sides of the computer keyboard is recommended. This will encourage students to share and also protect the computer mouse.

Chatswood's workstations have inexpensive dynamic microphones on desktop stands. High quality microphones are available on request. One external audio interface that enables input for two microphones and that also supports phantom power (condenser microphones) is shared amongst the workstations. A 4-input MIDI interface is used in a similar fashion. This unit allows for up to 64 channels of MIDI, as opposed to 16 and can support 4 MIDI controllers—keyboard, MIDI drum kit, MIDI wind controller etc.

### Teacher professional learning

During Terms 1 and 2 in 2005, the Curriculum K–12 Directorate will be running a second phase of workshops on the new *Music Years 7–10 syllabus*.

In addition, courses in music technology will be running at the following venues throughout 2005:

The Powerhouse Museum SoundHouse™  
[www.soundbyte.org](http://www.soundbyte.org) Phone: 9217 0222

The Chatswood High School SoundHouse™  
[chatswood-h.admin@det.nsw.edu.au](mailto:chatswood-h.admin@det.nsw.edu.au)

The Macquarie ICT Innovations Centre  
[www.ictinnovations.mq.edu.au](http://www.ictinnovations.mq.edu.au) Phone: 9850 4310

## The Teaching and Learning Exchange (TaLE)

This article outlines the structure and function of the Teaching and Learning Exchange (TaLE), which provides teachers with NSW syllabus-specific curriculum materials, resources and information. TaLE can be found at <http://www.tale.edu.au> or accessed from the Department's intranet homepage.

Many of the resources and teaching aides found on TaLE are located on the *Curriculum K–12 Directorate* web site at

<http://www.curriculumsupport.au/>

You can go to this site directly or find resources through TaLE.

The online Teaching and Learning Exchange (TaLE) has been revamped and is now live. TaLE is a web-based gateway to resources and professional support for school and TAFE teachers, educational leaders, parents and carers.

The Centre for Learning Innovation manages TaLE on behalf of the Department. The centre was established earlier this year to foster innovation using *connected learning*—a concept where information and communication technologies are integrated with teaching and learning.

TaLE consists of three *portals* or information areas, which are displayed on the homepage: **Teaching & learning resources, Professional learning, Parents & community.**

In the **Teaching & learning resources** portal, teachers can browse for resources by key learning area and Stage or use the **Search** function. For the first time, school teachers also have access to a wealth of TAFE resources and vice-versa. Teachers using TaLE can be confident the resources align with the NSW curriculum and training packages. Technology makes these resources accessible in seconds—from school or home.

TaLE is not only about teachers becoming better equipped for student learning. TaLE's **Professional Learning** portal offers many opportunities to expand and share expertise. Teachers can find up-to-date news on schools and VET supplied by EdNA as well as information about professional learning opportunities.

#### TaLE [www.tale.edu.au](http://www.tale.edu.au) Login for school teachers

To log onto TaLE (Teaching and Learning Exchange) you need your DET User ID. Teachers have been notified of their DET User ID and password (usually a fruit or nut).

If you can't locate your notification and don't know your DET User ID, or are having trouble logging onto TaLE, contact DET's IT Help Services by phoning 1800 338 483 or email [contact.tale@det.nsw.edu.au](mailto:contact.tale@det.nsw.edu.au) Casual teachers will be provided with login details early in 2005.