

A New Era for Education

Audio Visual has reshaped the outlook of our Education sector. Along with the aid of technological and IT advancements, connectivity, accessibility and better interactivity have made learning a whole lot easier and fun these days.

In this edition of Systems Integration Asia, we look at the various facets that are changing the face of Education today.

Technology in the Classroom

By Stephen Kelly

The education sector has often lagged behind others when it comes to the adoption and deployment of the latest technologies. As far as audio visual equipment goes, even in the 1990's many classrooms only had a chalk or whiteboard, a basic desktop overhead projector and projection screen.

Fast forward to 2009 and many students are in classrooms with interactive whiteboards, widescreen short throw projectors, voting systems, writing tablets and other peripheral equipment. Classrooms often have advanced control systems to simplify the operation of any equipment installed.

Many schools have embraced the latest technologies, and have seamlessly integrated them into their curriculum and environment. There are examples of primary schools with their own television studios broadcasting programmes daily, and radio stations broadcasting 24/7. Many have laptop programmes and advanced e-learning plans.

Projectors and interactive whiteboards are extremely beneficial in a classroom environment. They encourage preparation on the part of the teacher, allow eye contact with students, offer a focus point, and promote and facilitate group participation and discussion.

Projectors

With projectors, educational institutions have much to ponder in terms of specification; lamp life, reliability, brightness, clarity, noise level, and portability, or wall or ceiling mounting are all considerations. In recent times, educational institutions have also had to consider whether projectors they are choosing need to be capable of projecting in widescreen format, or have short throw ability.

Widescreen projection has been a key feature of the home cinema market for a number of years now. Students are increasingly seeing the "big picture" as they have become increasingly popular in education. There are several reasons for this shift, with one of the key drivers being that computer manufacturers have moved to 16:10 widescreen format as their standard specification for business laptops.

Widescreen projectors offer greater impact with wide powerful images. You can see approximately 33% more than you can with standard format projectors, and if using a widescreen laptop you won't have to adjust a widescreen projector prior to use, or suffer from the image being "letter boxed"—where a widescreen image is transferred into standard format and the image's original aspect ratio is retained.

Short throw technology enables a projector to project a large image onto a surface from only centimetres away. Volumes of projectors with short throw and ultra short throw technology will continue to increase. They are ideal for use with interactive whiteboards in an educational setting, as students will not be distracted by shadows on a whiteboards surface, and teachers will not be distracted by the glare of the lamp in their eyes, resulting in less disruption to communications.

Interactive whiteboards

Interactive whiteboards, now a feature of many classrooms, present an educational institution with many issues and challenges. When making a decision on what brand of board to choose, consideration needs to be given to how easy each type of board is to use, whether or not you can write on it with ordinary whiteboard markers,

whether it has a wide surface if the school wants to benefit from widescreen projection, and whether it is tough enough to survive school life.

Software is also important, and you need to consider whether you can use any software with it, and take advantage of the wide array of programmes available, or if you are tied to software supplied by the boards manufacturer, and whether it can be used with Windows, Mac and Linux. Also important are the reputation of the manufacturer, where it's manufactured, and the warranty offered.

Simplify operation

Once a school has decided on a projector and whiteboard the next challenge is to organise the installation and successful implementation of the technology. The stand out things that make for a successful implementation, are simplification and training. There are a number of ways to simplify a classroom installation, and by far the most effective is the installation of a wall mounted control panel creating a seamless easy to use installation.

Control panels offer many benefits, and one is that they do away with the need for easily lost, difficult to use remote controls. Control panels are individually programmed to meet a school's specific requirements for each classroom, as the school specifies what each button should do. The most basic controls include on and off projector buttons, volume up and down buttons, a source button to toggle between inputs, and possibly a freeze button to freeze what is displayed on the screen.

Larger schools with many projectors and brands can particularly benefit from the installation of control panels featuring a common layout to classrooms. This enables any teacher to walk into any room, at any

time, and operate the equipment immediately.

Training and “Champions”

Once a simple operating environment has been established, the training issue is the next one to address. Training needs to be provided on how to operate the chosen products, as well as on how to use any software provided by the boards manufacturer or purchased by the school.

The most effective way of successfully implementing interactive whiteboards at

an educational institution is by establishing a “champion group”. A champion group is a group of teacher users who will have regular access to interactive whiteboards, experiment with the board and software, attend professional development sessions, meet together regularly, and adopt their teaching style and lesson delivery to better engage students. Vtally important is that champions mentor and share what they have learned with other teachers, and that they have the opportunity to present their experiences

and successes at faculty or year level meetings.



ABOUT THE WRITER...

Stephen Kelly is the Marketing Manager for D.I.B Australia, a leading Melbourne based audio visual systems integrator.