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# Interactive projectors for the classrooms of tomorrow

Keeping up with the digital natives

Teachers today face the challenge of engaging students who are sophisticated digital natives. Today's students have grown up using interactive smart phones, tablets and touchscreen laptops from a young age, and many may have different learning styles from generations before.

According to Marc Prensky, who coined the terms 'digital natives' and 'digital immigrants', students today think and process information in a fundamentally different way from their predecessors. Their learning preferences include collaboration and teamwork, flexible learning environment and getting student voices heard in the learning process, as opposed to traditional lecture-type approaches.

The classroom today has evolved to include projector and display technologies that incorporate collaboration and interactive engagement, with a focus on making learning fun. Finger touch and pen drawing capabilities of the interactive projector help engage the students and enable the teachers to teach creatively to bring lessons to life.

Interactive displays for teaching can bring distinct benefits to students, who have reported increased enjoyment and motivation, according to reports by Becta, an advisory body for educational technologies in British schools.

### **Screen Size Matters – Interactive projector the smart choice**

There are currently various forms of interactive displays now available in the market, for example, the interactive projector and the interactive flat panel display. These technologies allow users to interact with the display, much like a smartphone screen, but on a larger scale.

While some may perceive that the flat panel displays are brighter, interactive projectors can actually provide a larger and more impressive screen for a large student audience. Projectors are also more cost-effective for classrooms. Let's look at some factors that are making interactive projectors shine.

- 1) Cost - The interactive projector's cost is a fraction that of interactive flat panel.
- 2) Flexibility and scalability - Interactive projectors project images very well onto just about any solid surface – whether a dry erase board, plain wall or even a tabletop, they can be turned instantly into multi-touch interactive surfaces. In contrast, other interactive displays such as the interactive flat panel will always take up wall space, occupying the space permanently even when it is not in use.
- 3) Excellent image quality - The interactive projector stands out for its picture quality. The touch-enabled projected images are not restricted to a specific size and can go up to 100 inches, or double the size of an expensive 50-inch touchscreen flat panel. Additionally, resolution of the interactive

projectors is available up to WUXGA quality, which is beyond Full HD, and project videos and images with vivid clarity.

4) Screen size matters - Although obvious, some do not realise that screen size is of paramount importance, especially in the common large classroom settings. A recent study in the US by Radius Research found that 58% of students are unable to read content displayed on a 70-inch flat panel display<sup>[1]</sup> – An alarming finding for schools that have adopted flat panel displays of this size, or even smaller.

With the large interactive screen size offered by interactive projectors to the budget-conscious education buyers, delivering interactive content to every student in the classroom is no longer a problem.

5) Say goodbye to glare – Another consideration to take note is that many flat panel or other displays suffer from glare caused by the reflection from classroom lighting or daylight from the windows. This sort of reflection is not found on projector screens.

### **Epson's Interactive Projector for the classroom**

Using a projector to display a large interactive screen creates an inclusive participatory environment and encourages collaboration, where both teacher and students can interact and contribute to the lesson contents, making learning more engaging and productive.

The versatility and connectivity of Epson's interactive projector have helped to broaden the possibilities for a teacher's classroom methods. It has enabled teachers to utilise a wide variety of content from multiple sources with a touch of a button. It also has the ability to enable annotation directly onto any projected content, including slides, education software, images from document cameras and even pause scenes of videos, making lessons with multimedia contents more interesting.

Teachers can also collaborate with students' mobile devices, with the ability to connect up to 50 laptops, tablets or smartphones to the interactive projector via the network. Collaboration is enhanced as the projector supports key lesson processes such as sending questions to student devices and receiving their answers for preview before projecting selected answers for comparison and discussion.

The benefit of this revolutionary education approach is that it helps to break down barriers within the classroom, and fosters better rapport and teamwork. When multiple participants, teachers and students alike are given the opportunity to co-create and interact simultaneously on a large digital learning canvas, the lesson becomes fun, collaborative and stimulating.

### **Transforming Teaching – SEA Perspective**

Epson, with a majority 57.7% Ultra Short Throw Interactive Projector market share<sup>[2]</sup> in Southeast Asia in FY2015, is the preferred interactive projector brand for innovative schools in the region to help teachers to teach more effectively.

At secondary schools in Singapore, interactive projectors have helped teachers to better engage students, increasing interest levels in class. Wielding the projector's interactive pen allows teachers to point at, drag and control on-screen elements, which has provided stronger visual cues to for better engagement.

The interactivity of the projectors has even opened up a Singapore school to new ways of education-based Java applets that can be used to better illustrate concepts and make lessons more interesting.

As interactive projectors become increasingly popular teaching tools in classrooms, they will continue to revolutionise teaching and learning to better engage learners with attractive visuals and interactive features – all that at an affordable cost.

<sup>[1]</sup>Based on U.S. research conducted by Radius Research. The research done using a 70-inch class 4k resolution flat panel in a 22' (width) by 27' (depth) classroom-style arrangement. When asked to copy down six short items of information from slides displayed, 58% of students aged 12-22 copied at least one item incorrectly.

<sup>[2]</sup>Source: Futuresource Consulting