

## 2 is all the budget will buy

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We only have two Interactive Whiteboards - where should they go? This paper explores the budgetary constraints that limit the quantity purchase of this new technology for many schools. The presenter will discuss the range of choices of placement for boards within a classroom or shared space in a school. She will also reflect on experiences in three different schools and their varied approaches to placing and accessing newly acquired technology.

The Interactive whiteboards arrived about the same time as I did. Where should they go? Because they cost so much we needed to give it considered thought. Perhaps it should be in a shared space so everyone can 'have a go'. We did manage to get the budget to stretch to a second board but where should that go? How do we decide? Who needs it most and where will it be best used?

### Context

I began working at Woodcroft Primary School in January 2006. My role is *Assistant Principal – Learning in the Digital Age* (An exciting new role/challenge to fulfil in itself.) The school currently has approximately 850 students in grades Reception to Year 7. The student cohort, and staff, has been provided with a broad range of prior experiences in ICT including extensive work by previous ICT Coordinators in teacher professional development programs and experiences with emerging technologies such as midi-pads and robotics. The school has an active Learning Technology Action Group (LTAG) comprising members of Staff, Leadership and Parent representation.



Picture 1 – student using smartboard in classroom – Woodcroft

Two interactive whiteboard packages had been ordered in 2005 to arrive in 2006. The decision on where these were to be placed fell to the leadership team to decide. The principal had been with the school for 6 months, one of the Assistant Principals for 6 years and the other two Assistant Principals, and the Deputy were new to the school. There had been significant leadership change and transition. It was a very important component of the decision making process that staff be consulted and included and that all decisions were clearly and accurately communicated.

### Personal history

Having changed schools twice in the last 8 months I had the opportunity in each school to work on or with Smartboard Interactive whiteboards.

### Aspendale Gardens Primary School

I worked from Feb 2002 until July 2005 at Aspendale Gardens Primary School in Melbourne's South. For the exemplary practices of the staff and students at this school, the school was selected to receive a "Creating e-learning Leaders" CeLL grant. This grant and the subsequent emerging technologies grant supported the purchase of the school's first interactive whiteboard. The research report on the whiteboard aspect of this project can be found at;

<http://www.agps.vic.edu.au/info%20and%20report%20on%20IWB%27s.pdf>

Aspendale Gardens purchased a multimedia trolley containing amplifier, sound system, video/DVD player and projector. The trolley required only one power cord and originally a

network cable (this was soon obsolete due to Victoria's commitment to wireless technology). A laptop (usually purchased through the teachers laptop scheme) could be placed on the pullout tray and very simply connected into the system and the smartboard. Although the school purchased a mobile board in order to allow flexibility and postpone the decision about placement, it was found that classroom use of the trolley/board combination was somewhat cumbersome and limited by space within the room. Particularly with young children, where bumping was very likely, reorienting the board regularly was necessary and somewhat of an interruption to the learning experience. The school therefore chose to leave the board in the computer space of the resource centre where all teachers could access the technology within the resource centre timetable and beyond. Teachers suggested that future boards should have roof mounted projectors and wall mounted boards.



**Picture 2 – Student and teacher working together on the smartboard**



**Picture 3 – Multimedia trolley**

### **Saint Aloysius College**

Link to their article on [the Interactive Whiteboard Net website](#)

[St Aloysius College](#)  Adelaide, SA 20 Feb, 2006

<http://www.interactivewhiteboard.net.au/dl/Case%20Studies/Exlempary%20Schools/ST%20ALOYSIUS-%20SA.pdf>

On moving to South Australia in July 2005, I began teaching at Saint Aloysius College in Adelaide. The school originally had 3 boards and had increased this number to 8 just before I joined the school. In 2006 the school has 16 boards. The gradual and thoughtful integration of these boards has been a key to their successful use across the school. Saint Aloysius has also conducted regular Professional Development activities for staff incorporating share time and collaboration on the use of the boards in the rooms where they were placed. Teachers wanting new boards placed in their learning spaces needed to submit an expression of interest and the decision about locations was finally made at a leadership level. The boards have been placed both in primary classrooms and in specialist secondary areas, particularly in the Science area. I was lucky enough to work with a board in my year 6 classroom full time and this opportunity taught me a great deal not only about the basic uses and the tool itself but more importantly about their seamless integration into day to day routines. When a board becomes a natural part of each day it begins to lose it's new toy, novelty value and become a more practical classroom addition.

### **Woodcroft Primary School**

On arrival at Woodcroft the two boards needed to be placed. The first board was installed in one of the library teaching spaces and although this required some new cabling it has been very well used. One of the creative timetabling strategies has supported this work. My personal timetable has been largely Resource Based Learning (RBL) and Information and Communication

Technology (ICT) teaching in the library with students and their teachers. The significant advantage of this at the early stage of the integration of the new technology was that students and teachers were learning together about the possibilities of using the new technology. It was important that although the boards were exciting and dynamic they needed to be seen as just another tool we might add to our already well equipped teaching and learning tool collection.

### **Measuring Success**

There might well be changes in pedagogy for teachers who have these in their classrooms but it should not just be change for change sake. The change should be purposeful and enhance the learning environment for students and teachers. Although the bottom line of improvement of learning outcomes has not been measured formally in this school at this stage, the success of the integration of the first two boards might in the first instance be best measured by the willingness of teachers to apply for the second round of boards which were subsequently purchased. The second board in the school generated three submissions with the following boards generating 12 submissions including one with 31 letters from a class of students.

One early but significant advantage of working with the smartboard has been the success students experience when trying things for themselves on classroom or multimedia room computers after first viewing demonstrations, explicit teaching or collaborative learning on the board. The physical 'touching' of the board is superior to simply following a mouse on a projector screen because students are able to see explicitly the steps taken to achieve a desired outcome. Engagement of both students and teachers in the learning process has improved and their willingness to contribute actively to the learning process seems to show invigorated passion.

Staff have seen a range of level appropriate activities being demonstrated and had opportunities to try the technology on for size with their students in tow. The example of teachers being able to 'record' an explicit teaching moment providing an opportunity for students to revisit areas of learning concerns, and repeat these at their own pace, excited many teachers. Handwriting recognition was also extremely well received by teachers and students alike. The ability to access websites and 'write' on the top of these, magnify url's for analysis and use virtual tools such as protractors and rulers or writing paper were stimulating. The boards are also a valuable showcase for exploring many of the Learning Federation Digital Learning Objects as the multimedia aspects of these works so well in the Smartboard environment.

Many teachers had the opportunity to see the boards for the first time in action in the school with an experienced teacher and practitioner sharing the possibilities of how this tool might be used in a generalist classroom as well as in the library space.

### **The Process of placement**

In order for teachers to provide input to the placement of the second board staff were consulted in developing a set of criteria which applicants could write to in their ensuing submissions. Staff contributed to the following four criteria;

- How would you see a Smart Board being used in your room?
- How would you integrate the Smart Board across the curriculum into your programme?
- What do you see as the benefits for you and the children you teach?
- How would you best be able to share new learning with others?

These criteria were then distributed to teachers in order for them to guide their submissions to the leadership team.

Many long and rich discussions occurred during the leadership meetings about the placement of the boards and it became apparent that the placement of the second board would disappoint some

staff members. Sensitivity was paramount and considerations beyond the applications also came into play. Four clear aspects emerged from the leadership discussions these being

- Application - quality and content
- Physical Constraints - logistics - suitability of classroom
- Whole school vision ie; year level equity - school future visions
- Past experience / best practice in teaching and learning

The successful teacher's ability to share the resources they were seeking with others was a very important consideration in the success of the boards in the school. Curriculum before novelty was imperative.

All of the initial applications were exemplary and enthusiastic and the decision was challenging. The passion with which the successful applicants have approached their role of advocacy of the new technology has supported our future decisions. (The other two staff who missed out have thankfully been successful since!)

### **Too good to refuse?**

Soon after these difficult decisions were made an offer came from our provider that was outstanding and inclusive of a very extensive range of peripheral extras including digital microscopes, wireless slate, keyboard, gyro-mouse and more. The prices were very good and after discussion with the school technician we considered the possibility of transferring some of our ICT budget for the year from PC rollover to more boards. We suggested that three more boards might be a worthwhile investment.

I returned to the leadership team with this 'big ask' proposal of purchasing three more boards and obviously they could see that the enthusiasm for the new technology was growing and that the offer was substantial because that meeting resulted in the suggestion of finding money in the budget for four more boards not three.

### **Professional Learning – Learning together**

Our most significant and perhaps the most important part of the success in this emerging technology is the embedding of teacher professional development in the use and integration of the interactive whiteboards into the existing teaching and learning program on a daily basis. Allowing teachers the time to 'play' with the new tools, with support, has made many teachers feel more comfortable than they expected. This has had spin-off success within the classroom domain where teachers are feeling more comfortable with a range of other new software and hardware applications that they have been experiencing together with their students through their RBL/ICT time. Teachers are embracing Learning Objects, Kahootz and Moodle more readily to enhance the teaching and learning programs they are delivering.

### **Where to from here?**

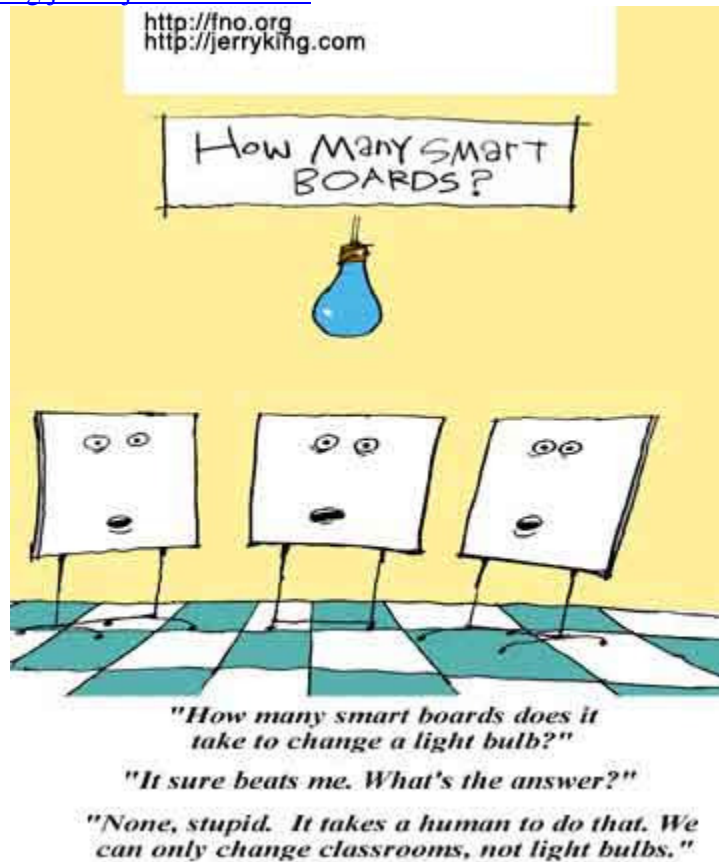
The staff members at Woodcroft Primary School are very committed to their own learning and the advancement of their skills and abilities and also their careers. They consider well the needs of the students in their care and are beginning to embrace the journey we are taking together into the digital age.

It is a relief to see that the Interactive Whiteboard integration at Woodcroft has been rapid but thankfully still carefully considered. I felt very strongly that the roll out of the boards should not be rushed, nor that teachers and students perceptions should not lead to thoughts that it was the boards that mattered, not the changes in teaching and learning. One very thoughtful teacher emailed me a copy of a fantastic cartoon, showing a discussion between three interactive whiteboards with the following dialogue

“How many smartboards does it take to change a light bulb?”

“It sure beats me – what's the answer?”

“None stupid – it takes humans to do that. We can only change classrooms not light bulbs.” <http://fno.org/jun05/juncartoon.html>



I think her message to me was quite clear. No matter how many boards a school may have, teachers are still the most valuable asset in any school, and supporting their expedition into learning in the digital age, along with their students is a journey full of excitement, possibilities and at this point at Woodcroft, unbounded enthusiasm and positive engagement.

### Key resources

Aspendale Gardens Primary School – Melbourne - Case study report  
<http://www.agps.vic.edu.au/info%20and%20report%20on%20IWB%27s.pdf> – accessed Wednesday, 5 April 2006

Interactive Whiteboard Net Case Study - St Aloysius College - Adelaide  
<http://www.interactivewhiteboard.net.au/dl/Case%20Studies/Exlempary%20Schools/ST%20ALOYSIUS-%20SA.pdf>

### Other useful resources

BECTA – schools study

<http://schools.becta.org.uk>

Ed Compass

<http://www.edcompass.smarttech.com/ec/en-us/>

Electroboard

<http://www.electroboard.com.au/trainingcentre/trainingmaterials.asp>

Engaging learners the smartboard way

<http://www.eduscapes.com/sessions/smartboard/>

IWB resources – Interactive Whiteboard Net – Australia

<http://www.interactivewhiteboard.net.au>

Interactive Whiteboard activities - Created at the Birmingham Grid for Learning

<http://www.bgfl.org/bgfl/15.cfm>

National Library of Virtual Manipulatives

<http://nlvm.usu.edu/en/nav/vlibrary.html>

Activities for Primary teachers on the IWB

<http://www.topmarks.co.uk/interactive.aspx>

Promethean UK Homepage

<http://www.prometheanworld.com/uk/>

Rainforest Maths - Great collection of Primary Interactive Maths activities

<http://www.rainforestmaths.com/>

Richardson Primary School review

[http://www.richardsonps.act.edu.au/RichardsonReview\\_Grey.pdf](http://www.richardsonps.act.edu.au/RichardsonReview_Grey.pdf)

Smart Education – Australia and New Zealand

<http://www.education.smarttech.com>

Review project on effective use of Interactive Whiteboards

<http://www.thereviewproject.org/>

Beth Measday article – So you've got an interactive whiteboard – now what?

<http://www.tsof.edu.au/research/Reports05/measday.asp>

Whiteboard resources

<http://www.ict.oxon-lea.gov.uk/whiteboards.html>

Wicked interactives

[http://www.tki.org.nz/r/wick\\_ed/interactives/index.php](http://www.tki.org.nz/r/wick_ed/interactives/index.php)