

# **Interactive Whiteboards In Music Education- Making the Case, Finding the Funding, and Making The Best Choice**

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## **Topics To Be Covered In This Presentation:**

1. Making The Case For Using IWB's In Your Classroom
2. Finding The Funding To Purchase an IWB
3. How to choose an Interactive Whiteboard
4. Brands and Types of IWB's
  - SmartBoard
  - ActivBoard
  - Mimio
  - StarBoard
  - Epson Brightlink 450Wi Projectors
  - Qwizdom Tablets
  - WiiMote Whiteboards
  - Other Options
5. Hands On Demos

# Why Use an IWB and Tying IWB Usage Into Your Curriculum

## Ensemble Benefits:

- Greatly increased retention and comprehension when teaching music concepts to large groups of students.
- Fast and easy display and manipulation of musical scores and other documents in a much more visual way.
- Big increase in on-task behavior when used appropriately in large ensemble settings

## Small Ensemble/Private Lesson Benefits:

- SmartMusic songs or music notation files become instant tools for teaching that can be drawn on and manipulated in full view of the class instead of from behind a desk using a mouse
- Keeps the teacher out in front of the students and allows them to maintain eye contact, improving classroom management
- Create simple, reusable lessons on whatever concept you are focusing on and use it with each new lesson group.

## MOST IMPORTANT:

These things only happen if you find ways to let the students use the board. Let them make the changes to the music. Let them draw in the bar lines or circle the accidentals in a piece of music. This is also a great way to quickly and easily assess the knowledge of students in your class. Even those that are shy about speaking up in class will jump at the chance to use the IWB.

## Interactive Whiteboards In Education:

[http://www.jisc.ac.uk/uploaded\\_documents/Interactivewhiteboards.pdf](http://www.jisc.ac.uk/uploaded_documents/Interactivewhiteboards.pdf)

# Finding The Funding

## Options that are often overlooked:

- Local matching grants - occasionally a school district will match any funding raised by a PTO or other group for purchasing school equipment
- Title I money can be used to fund technology (<http://bit.ly/duVoB7>)
- Title IID funds are for federally funded technology specific purchases (<http://bit.ly/duVoB7>)
- Title II funds can be used for teacher development of classroom pedagogy (<http://bit.ly/duVoB7>)
- Local organizations and clubs that wish to donate money to worthwhile projects
- Area and regional grantors
- Matching grants from businesses

## Board specific funding options:

- Mimio- Do an [ArtStamps fundraiser](http://www.mimio.com/artstamps/) (<http://www.mimio.com/artstamps/>) and they match dollar for dollar up to \$150
- SmartBoard- SmartTech [Grants and Funding page](http://bit.ly/bODcJX) (<http://bit.ly/bODcJX>)
- Almost every major vendor has information on funding options and grant possibilities. Check their web sites!

## Other grant writing resources:

- From TechLearning Magazine an article on "Writing So That Your Proposal Is Funded" (<http://www.techlearning.com/article/20464>)
- Article on "Interactive Whiteboards:Funding and Professional Development" (<http://bit.ly/duVoB7>)

# How To Choose An Interactive Whiteboard:

All IWB's do the same thing, allowing you to control the computer remotely, but some IWB's fit better into specific teaching situations. When buying an IWB consider the following questions:

1. Where will the board be used and how will it connect to the host computer?
2. How far is it from the computer to the board?
3. Is there a need to make the board portable?
4. Is the projector mounted on the ceiling or on a cart?
5. Does the room have any important features like a large windows or an automatic light control system?

## **It's not just the board- IT'S THE SOFTWARE!**

In terms of software think about these things:

1. What programs and software will you use with the board?
  - Sibelius, Finale, etc. are great for use with IWB's, but some brands work better and more accurately when placing notes on the staff
  - SmartMusic works great with almost anything, but conflicts at times with other music software products causing audio problems
2. How much time do you want to spend creating your own lessons and resources to use with the board?
  - Some board software programs have lots of useful music related resources while others have almost none

**Boards with the best software packages for music educators:** SmartBoard and ActivBoard

**Also providing decent third party software (RM EasyTeach):** StarBoard

**RM EasyTeach-** A stand alone board-independent IWB software package that can be purchased for use with any IWB system. <http://www.rmeducation.com>

### **Article: How To Buy an Interactive Whiteboard:**

<http://www.musicedmagic.com/computers/how-to-buy-an-interactive-whiteboard.html>

### **Article: Teaching With Interactive Whiteboards:**

<http://www.musicedmagic.com/computers/teaching-with-interactive-whiteboards.html>

### **Article: Making The Tech Connection**

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## **Other Useful IWB Resources**

*Classroom Presenter:*

<http://classroompresenter.cs.washington.edu/>

*Other suggested software resources to use with an IWB:*

[http://www.boonjin.com/smoothboard/index.php?title=Interactive\\_software](http://www.boonjin.com/smoothboard/index.php?title=Interactive_software)

*Video Comparing WiiMote To Commercial Whiteboards:*

<http://www.youtube.com/watch?v=BSDxc2kFjms>

IWB Related Software:

<http://rmtc.fsdb.k12.fl.us/tutorials/whiteboards.html#software>

## **Brands and Types of Interactive Whiteboards Currently On The Market:**

## **SmartBoard** <http://education.smarttech.com>

- Full SmartBoard system (not including projector) \$700-\$1900 retail
- With mounted short throw projector option \$3000- \$4500

### Pros:

- One of the easiest systems to use, plug and play!
- Responds to fingertip touch for moving things around or pick up a colored pen to annotate
- Best and most full featured software and presentation package available
- Thousands of pre-made lessons and activities available on the SmartBoard web site for download

### Cons:

- Expensive
- For music teachers the amount of resources and pre-made lessons is less extensive than for other subjects but improving
- Multi-touch requires additional hardware upgrade

## **Promethean ActivBoard** <http://www.prometheanworld.com>

- Full Promethean ActivBoard system (not including projector) \$1000 - \$1800
- With mounted short throw projector option \$2800 - \$4200

### Pros:

- Very easy to set up and use
- Very accurate and detailed annotation using the included stylus
- Extensive online lesson collection called Promethean Planet where teachers can share their creations
- Reported to be more resistant to damage due to nature of the way the touch surface is made

### Cons:

- Expensive
- Quality of included music graphics are rather grainy
- Online lessons have some but not a lot of music education content
- Must use the stylus. Fingertip control not available
- Multitouch requires upgrade or one of the newer model boards

## **Mimio** <http://www.mimio.com/index.asp>

- Full Mimio system without projector \$700

### Pros:

- Very portable
- Can be powered by battery, A/C Adaptor or USB cable
- Wireless connection to computer via Wi-Fi or via USB cable
- Suction cups allow for easy attachment to any dry erase board or smooth wall
- Can use traditional dry erase markers inside special sleeves to annotate and save drawings with or without a projector
- Can be permanently mounted

### Cons:

- Almost no music education related resources or lessons available with the system
- Infrared/Ultrasonic location sensors are unreliable in rooms that have automatic lighting controls
- Stylus pen is bulky
- Accuracy of annotation is not really adequate for drawing notes on a staff or other fine detail work
- No multi-touch

## **StarBoard** <http://www.hitachi-soft.com/starboard>

- Full Hitachi StarBoard system without projector

Pros:

- Built in multitouch
- Uses optical cameras to detect board touches from any object (finger or stylus)
- [Software](#) is well designed and thought out

Cons:

- Expensive
- Almost no music education resources at all available on the web site

## **Epson Brightlink 450Wi** <http://www.epsonbrightlink.webengager.com/>

- 2500 lumen short throw video projector with infrared IWB built in

Pros:

- All in one unit, projector and IWB sensors combined

Cons:

- Poor software for creating lessons with
- Special mounting considerations
- Requires use of special stylus
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## **Qwizdom Q7 Tablet** <http://www.qwizdom.com/>

- Full Q7 system without projector or computer \$

Pros:

- Ultraportable
- Comes with carry bag
- Wireless dongle inside the unit
- When used with interactive remotes the teacher can see quiz results on their LCD screen without showing them to the students
- Works on any projection surface including pull down projection screens

Cons:

- Writing and using the device requires a little patience and training
- Software has a bit of a learning curve to it
- Almost no music education resources or content available at this time

## **WiiMote Whiteboard** <http://www.wiimoteproject.com/>

- Bluetooth Adaptor (only if needed) \$10 from WiiTeachers.com
- WiiMote (need at least one, two for better accuracy) \$40 each in retail stores
- Infrared Pen (need at least one or more in case one breaks) \$10-30 each from WiiTeachers.com
- Smoothboard Software (calibrates the WiiMote and allows you to draw on screen) \$30 each from Smoothboard.com
- Plug-in power adapter and rechargeable battery for WiiMote (optional but recommended) \$25 from WiiTeachers.com

Total cost for fully functional WiiMote Whiteboard - \$90 to \$165

Pros:

- Cheap
- Very portable
- Components are easy to come by using online vendors
- SmoothBoard software is well designed and allows use of two WiiMotes for redundancy or for using one as a presentation remote

Cons:

- Most complicated to set up
- Turning the system on each day requires several steps to connect the WiiMotes to the computer
- WiiMote needs to be mounted somewhere that it will not get bumped easily
- WiiMote batteries go dead fairly quickly if system is left on all day (use rechargeable battery and cord to get around this)
- No dedicated presentation software package makes making lessons more complicated
- Infrared pen sometimes accidentally controls other IR remote controlled devices

## Other IWB Brands:

- eBeam, Polyvision, Interwrite, NuMonic

### SmartBoard Contact:

Chloe Eidson  
Bradfield's Inc.

PO Box 2752

Davenport, IA 52809-2752

800.747.7453

Fax: 309.672.1756

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### Epson BrightLink 450Wi Contact:

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<http://www.midwestcomputer.com/WhatWeDo.aspx>