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THE PRESTISSIMO SERIES

# Interactive Visual Ideas for Musical Classroom Activities

Catherine Dwinal

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*Interactive Visual Ideas for Musical Classroom Activities: Tips for Music Teachers*
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# Interactive Visual Ideas for Musical Classroom Activities

*Tips for Music Teachers*

Catherine Dwinal

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*To my friends and mentors, thank you for the encouragement always to be learning, growing, and sharing. I would not be where I am today in my career without you.*

*To my family, thank you for listening, thank you for encouraging, and thank you for helping me get through!*

# Contents

# Foreword

A blank screen is magical––a white canvas waiting for an explosion of color with ink or paint, a fresh snowfall waiting for the first crunchy footsteps, a clean tablecloth waiting for a sumptuous dinner setting and a delicious meal.

Those of us "of a certain age" remember back to the joy of walking into an elementary school music room and finding a TV set up. As soon as you saw that screen, you knew it was about to be the best class ever. Sometimes you got to watch educational programs about famous composers, sometimes a movie version of *Peter and the Wolf* or *Tubby the Tuba*, sometimes fun musical cartoons like "What's Opera, Doc?" or "The Cat Concerto." Those were, undeniably, the best classes ever, because your mind could be carried away from the school walls to distant destinations, transported and inspired by waves of beautiful music. It wasn't just the visual element of the screen that was so engaging, it was the entire audio/visual immersion––a "dream come true" for all we young aspiring musicians.

Then came high school, and the screen became unmagical. Many times the sight of a screen in the classroom preceded slides of facts and dates parroted unenthusiastically by an instructor who seemed to have become more lecturer than musical mentor. The screen, and presentation software, had become a shortcut for delivering instruction without any room for discussion or alteration of content. Because the slides had been pre-prepared, it was obvious that this class was only going one direction, and each of the students had already worked out what that direction was by observing the objective on the board. We felt betrayed. The screen, which so few years ago had promised magical enchantment, now offered little more than educational paralysis and an hour of sitting quietly in a chair listening to someone read out notes that any of us could have read ourselves in a few minutes.

Alas, any of us who have sat in a professional development meeting where the first words said were "I have a slideshow for you" know all too well how visual presentation software has sadly become the most badly used of all technological developments of the last thirty years. We see how the once- magical screen has become representative of ennui and we swear to get away from screens as much as possible in our own work.

Thomas Aquinas's philosophy taught us that nothing in the w orld is inherently good or evil, but that it is its manner of usage that may make it so. This is unfortunately true of the screen and of visual presentations. The screen and the software are not to blame for our current "paralysis by presentation" epidemic, rather it is the unskilled and unimaginative presenter that turns something with so much potential into something so dull.

Music teachers are used to making things magical—we do it every day. Every time a child walks into a music classroom, they are inspired by the potential of what is to happen that day. Every lesson should be the best class ever. So, it should come as no surprise that music teachers are often the best at using screens and visual software. When an adult walks into a music classroom to see students actively engaged with software on an interactive whiteboard, making and enjoying music through software titles such as Quaver Music or the interactive elements of the Music First suite, they are thrilled and overjoyed to see that the screen has become the catalyst for the magic.

Those teachers who are incredibly skilled at using the myriad of current presentation options (interactive projectors, document cameras, SMART boards, et al.) are those who recognize that the tools enhance and bring out the magic in what is already there—the music. They know that the potential goes beyond their imagination, and so, not in-coincidentally, they are the ones who are often looking to other teachers for advice, borrowing ideas from each other at conferences and PD days, sharing successes and do-overs online, keeping pace with a technology that seems to grow even faster than the kids.

Catie Dwinal is a pioneer in the use of interactive visual techniques in her classroom. She began her career teaching elementary students in New Hampshire and found every way possible to enhance and modernize her classroom, making music classes the highlight of every day for every student. Her incredible work led her to become the youngest ever recipient of the TI:ME (Technology In Music Education) Teacher of the Year Award, in 2014, at the tender age of twenty-six years old. Catie now tours the United States and abroad as a representative for Quaver Music, and she presents at many state and national music conferences. Her presentations are remarkable. Yes, when you go in you'll see that magical blank screen, but pretty soon she'll have you up dancing, making music, and loving life. Imagine what it would be like to be a student in her classroom every day.

It is in that vein and that spirit that Ms. Dwinal has chosen to present many of her ideas to you in this volume. This book passes the magic of her experience on to you. The following pages are organized in such a way as to allow you to dip in and find fun and educationally appropriate activities for your classroom, no matter what age you teach or

what equipment you have access to. Each of these lesson ideas and classroom hints have been proven to work successfully, and even just incorporating one or two of them into your lesson plans each semester will make your classroom a haven of musical joy. Our hope is that you will be inspired to use what you already have in new ways, and that your students will be the true beneficiaries of the superb material presented here.

Richard McCready
Series Editor

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# Introduction

When I began teaching, I decided to incorporate digital methods into my style of instruction. This was one of the things that my students remember most about our time together in class. I didn't have many resources when I started, nor did I want to; it would have been too overwhelming to have everything I wanted right off the bat.

I was new and had to learn how to be a teacher before I could start to explore different methods of instruction. Most of my first year was spent incorporating a projector and a computer into my classroom and finding the thousands of uses for only those two tools. It was just the first step in the adventure, because you can go beyond using the system merely to show a picture or a website.

There are, of course, many times where I do use it to play short videos, show pictures, and explore websites because that is what fits my lesson that day. Then there are times that I bring up interactive field trips, spinning the globe on Google Maps to show students different parts of the world. Even though it would be amazing to have an interactive projector, I'm not above asking students to point to the screen and pretend to drag and drop as I moved the targets with my computer mouse.

Think about it from an SAMR perspective, the education substitution, augmentation, modification, and redefinition technology implementation framework from Dr. Puentedura.[1] I started by doing just simple substitutions like this before moving to augmenting and beyond. It was a way to take a traditional pedagogy and add a dash of twenty-first-century instruction to it, to engage the digital natives I had sitting in the classroom and relate what we did in class to their daily lives.

1. Puentedura, R. (2014, December 11). "SAMR and TPCK: A Hands-On Approach to Classroom Practice." Retrieved from http://www.hippasus.com/rrpweblog/archives/2014_12.html

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As the years moved on and I became more comfortable teaching students, I started to add more resources and experiment more in-depth with the system I had. When I finally got an iPad, I began to use it to remotely access the desktop from my computer and became untethered from the front of the room. This tool allowed me to be able to immerse myself more into what was happening beyond the front of the classroom. I could sit with students and play the recorder with them, with the ability to start, stop, and change the music whenever I needed.

Incorporating just one new piece of technology into my instruction seemed so daunting, but it was so simple once I started and it became a staple in my room. It doesn't matter how low- or high-tech it is. It's all about how you use it.

That is where my journey began. I wanted to figure out the best ways to use what I had and share it with others. I talked with coaches, shared with friends, and learned as much as I could from peers and mentors.

A projection system can very much be considered the center of the classroom. It can be the first thing a student sees when they walk through the door, and the last thing students experience before they leave. It is also the only piece of technology a music educator may have in their classroom. I cannot tell you how many times over the recent years I have heard, "They are getting me a projector! I've never had one before."

A projection system is an active part of the instruction that allows students to practice digital skills and allows the teacher to provide engaging visuals for today's digital learner. You can now share pictures and videos with the whole class at one time without having to take the time out of your busy day to print out and pass around an image, or have the class crowd around you to look at your monitor. Students can all follow along while playing simple songs and warm-ups, practicing their listening skills, or playing in an ensemble. You can truly meet the needs of all the visual learners in your classroom who might struggle with not being able to visualize concepts you are talking about during class.

According to the Visual Teaching Alliance, 65 percent of the world's population are visual learners (http://visualteachingalliance.com). Although we have been used to teaching orally for so long, most of the current society does not learn this way. A projection system in your room gives you a tool that can help students to understand what you are explaining, and in cases like the interactive board, students can engage with it as well.

Students have a decreased attention span due to the content they are now consuming, from 6-second videos to the 25,600 short ads they see a year.[2]

The ways that current students learn are different than what they were even ten years ago. The use of simple technology tools helps to connect the dots and engage students' revved-up brains toward more educational discovery. Take some of that screen time they would use to meander around the Internet and change their perspective: teach

2. Moses, L. (2014, March 11). "A Look at Kid's' Exposure to Ads." Retrieved from https://www.adweek.com/digital/look-kids-exposure-ads-156191/

them to use the tools as a way to create and expand knowledge instead of merely consuming what is readily at their fingertips. A critical point to spotlight is that technology has begun to change us from consumers to creators.

It has begun to adjust our educational core values from reciting facts and figures to creating content, providing real-world application, and challenging problem-solving skills. It shows an evolution in the way that we teach and prepares our students for the future. Careers have been changing over the decades as our culture has evolved and matured with the growth of technology and with education being initially the system to prepare students for future careers. This change needed to happen to continue to prepare those students for their futures.

Even though it is tough at times for teachers to acquire the resources they want, any technology they bring into their rooms allows a chance for students to build their proficiency and skills for the road ahead. If the teacher is using technology for instructional methods only and it is not interactive, students can still learn by example. Do you know the phrase "They are always watching"? That stands true here. Students also learn about how to use technology on their own by watching the teacher.

Having a projection system in the room also allows for the teacher to work on their own technology literacy as they learn to use and integrate it, problem-solve different issues, and elevate their daily routines using the available resources. Teachers also work on their critical thinking skills as they put together how they want to upgrade their lessons and keep learning new and fresh with the continually evolving student audience. It also assists them with their own threshold for patience and flexibility as well as teaching students that it is always okay to fail at trying something new as long as you get back up and try again. Using systems like a projector or an interactive board for small tasks might seem like no big deal, but the way you use it and the more you use it in different ways can make a big difference in the end.

Having a projection system has become so crucial pedagogically because it is one of the best ways to differentiate instruction by giving your visual learners a way to see the concepts you are teaching and provide more interactivity for your kinetic learners. It also meet our students where they are in this technology-driven world. Having such a system is now almost a requirement for every classroom. Having a system can make your life as an educator easier through more organizational options and less time precious time spent making the visuals. Projection systems have become an important tool that has changed the design and delivery of instruction for the better.

You might be asking, "Which one is the best? Which type of system should I get?" To be truthful, I cannot tell you which one is the best or which one you should have because it depends on a lot of different factors, from your teaching style to your classroom set-up. You also might have to have your district technology department choose for you based on what will work best for the district's network. Be open to any system; you can do so much with anything that is out there. It just takes a little creativity.


**FIGURE 1.1** Demonstrating to students the power of an interactive board. (Photo Credit C. Dwinal)

In this publication, you will discover ideas, resources, and hopefully, motivation to continue creating more experiences like the ones presented to you in this book. Do not think of this as a curriculum. Think of it more as your own instructional tech coach here to specifically cater to your projection system needs in the music room. Challenge yourself to step out of what is comfortable.

We teach students that it is okay to fail if you are willing to stand back up and try again. To best teach that, we need to be role models for it ourselves—do what we think is impossible and persist until we make it possible. Those of us who stay in our comfort zones and do not try to step outside the circle never get to experience the innovations that lie out there.

As educators, we always need to be growing and changing. If we don't, there is a chance of being stuck and losing the sense of what motivates us to teach the next generation to change the world. To step beyond our circles, we need to be able to let our inhibitions and doubts go and be flexible if there are times when something doesn't work out the way we want. Knowing that and being confident in the face of those challenges makes a huge difference.

There are many things that a teacher has to consider when teaching, from the audience, the equipment, learners' needs, what knowledge they come into class with, etc. If you can take that and create a memorable experience for your students in which they learn and walk out of your room still talking about it, then you've done something special. You stepped outside of your comfort zone and said "Yes." You were creative, you were open-minded, and you most likely motivated your students to continue to learn and grow.

When it comes to technology, you do not have to use the flashiest things to do what you want to do. You could begin with something small, and then as you take more and more steps outside of your comfort circle, the creative juices start to flow more, and you begin to think outside the box and go from developing "lessons" to developing "learning experiences." So think big and start small.

The purpose of this publication is to use it as a reference that you, as an educator, can utilize to pick and choose activities that will best suit your instruction. The chapters are organized by device type, and the lessons in each chapter are organized by grade level and level of difficulty. Pick and choose lessons in each chapter based on the device you have and the grade levels you want to use it with.

Choose activities to incorporate into your lessons that best fit your level of comfort with using technology in your classroom. Choose a few that you could do right now and some that you can try later after you've become more comfortable. Then start! (If you need a different tool to use with the activity, go to the Resources Index and find ways to substitute within the lesson.)

Consider this resource as your technology coach. Not every classroom is the same; not every teacher is the same; and not every group of students is the same. Use this book as a reference and a guide to new ideas where you can pick and choose what will work for you. Know that this publication is here to give you ideas and guide you as you integrate such essential tools into your lessons to meet the needs of your digitally engaged audience.

# Tips to Get Started

## Teach Yourself Enough

There are times when we want to be entirely in control and know everything before we present it to our audience. In reality, though, we will never know enough to ever be truly prepared. Learn the basics of how to use your system and especially how to do basic troubleshooting.

You will be surprised how much you will learn on the job. Before you try something out in your lessons, make sure you know how to get it started and ready to go. Know the essential tools like calibrating, using the draw tools (if it is an interactive board), also adjusting the picture if needed.

## Know That There Will Be Times You Will Have Malfunctions

Not everything is going to be perfect the first, the second, or even the third time. There are still times where I am hoping and praying that everything does not die on me during a lesson. You will always see me with backup plans, and I say plans in plural because you might have to get to plan E before something works.

You can teach your students that even when something goes wrong, it is best to stay calm to be able to fix it. Just stay calm and troubleshoot and know where to go if you have tried it all and it does not fix the problem. Then, if all else fails, pick yourself up, change gears, and move on.

## Bake Your IT Cookies!

First, know who your IT department is and what they do. They are the ones who help you when basic troubleshooting does not fix the issues. It might be a unique issue only they have the tools to fix, or it might be a network issue, which could be bigger trouble.

They, most of the time, will be willing to set you up with the newest gear, fix any problems you may have, and help to integrate the tech into your classroom. It always helps to bring them a treat as well! Think of this team like you do your secretary or even the custodial staff. Those departments help you with scheduling and performances. IT helps you with your tools in class.

## Practice the Basics Before the Kids Get There

This tip goes along with knowing the basics before you use your new systems with students. It is one thing to "know," but another thing to "do." Practice with your materials.

Invite a friend to come into your room a few days before school, and both of you explore what you want to do with the machine. Make sure you know how everything works and that all of your devices have sufficient power. If you feel like you need some real fun, have each of your friends practice being the teacher while the others are the students and go through a few lessons using the board.

## Not Everything Can Be Fixed in a Day

Not everything can get resolved right away. You might have to wait a few days for a new bulb to come in, or the Internet might be experiencing issues all across the district, and you might be out of luck for the day. The technology we use will fail us every once in a while, but it is still something that helps us, and we need to be patient with what we have. Make sure to alert your IT as soon as something malfunctions. The faster you do, the faster it gets on their list, and your class gets back up and running more quickly.

## Always Set the Rules First with Kids

Consider building in rules for technology use in your classroom at the beginning of the year. Set down those expectations and procedures just like you would with standard rules in your class. Students do not inherently know how to act with technology and need to be taught what to do.

If they know that when it is time to use Chromebooks or laptops they need to use them on the tables or have them sitting flat on the floor, then make sure they practice and understand that. The rules that I always set down for my students when using the projector system are:

- You need to sit at least two bodies back from the wall.
- Keep an aisle down the middle so people can come up and take turns.
- Touch the board or device gently.
- Be patient.
- Take turns; let everyone get a chance.

I, of course, have slightly different rules when it comes to mobile devices and such, but the students know how to handle them and understand the expectations that are laid down from the beginning. If they know that what they have is unique it will help them learn and have fun. Then they take using what they have more seriously and keep the devices in better shape. Treat it as a learning experience!

## Be Okay with Students Taking the Lead

Instruction is changing, and it is time to share that spotlight with your students. It's your turn to be the facilitator and guide of knowledge rather than the "sage on the stage." Whether it is to help with a warm-up or to teach their classmates what they learned, this helps them develop confidence, encourages them to be a more active part of their learning, and of course, builds leadership skills. So, make time to let students do some of the leading. It helps create a more collaborative environment!

## It Is Okay to Use Technology in a Small Group or for Whole Classwork

Your projection system is essential. It is a significant fixture in the music room that most teachers will build their space around. The fact of the matter is that even though it is a large part of your area, not all students need to use it at the same time. For instance, during center time one group of your students could do an activity on the board, or use it for small ensemble practice; one of the groups could use the system to play along with certain parts of the music. There are so many ways to be able to use the system; do not limit it to just one way of instruction.

## It Is Healthy to Turn Your Back to It

Make sure to balance your screen time in lessons to leave room for all the singing, dancing, and playing you want to do. Using technology is only a small part of everything. Avoid being glued to it the whole time.

Use it for an activity, then get up and move around. You could also incorporate it into creating or composing music. Jump back and forth in a lesson and use the system where it can enhance the learning.

## Keep It Clean

Make sure that you maintain it to last as long as possible. Keeping it clean means you need to make sure it is wiped down periodically to be free of dirt and grime. Make sure to keep any other fabrics or materials away from the devices.

Most importantly, shut it off at the end of the day or during any long breaks during the school day. Don't leave it on all the time or the bulbs or batteries in the devices burn out a lot faster than the recommended wear and tear.

## You *Can* Be Untethered!

Walk away from the front of the room and be a part of the action with your students. A cheap way to do this is to get a $10 wireless mouse from your nearest office supply store and carry that with you. There are other methods of communicating wirelessly with your system, from SMART Slates to using a mobile device like an iPad. I love using an a pp called Splashtop to remotely access my computer's desktop and be able to control it from anywhere in the room!

## Always Have a Plan B

After plan B, have plans C through Z ready as well because you most likely will need them at some point. I still have other plans of action up my sleeve just in case I have a bad day and the technology doesn't work. Always be ready to roll with the punches and do not be afraid to be adventurous and get messy! You never know what kinds of things will happen during the school day with your students, and it's the same with technology. It can be unpredictable.

## Know What to Troubleshoot First

Always have an essential troubleshooting checklist.

- Did you turn it off and on (reboot)?
- Did you make sure everything is plugged in correctly?
- Is the Internet working?
- Have you tried a different web browser?
- Is your software up to date?

Sometimes just going down that list can solve your problem quickly!

# Tricks

## Blank Screen

This is a perfect trick for those wandering eyes that cannot help but stare at whatever pretty colors and moving objects that are in front of them. On a Windows machine, if

you hold down the Windows and D key it will quickly turn your screen black. On a Mac, if you choose Control-Shift-Power, it will put the computer to sleep; hit any key on the keyboard to wake it back up quickly.

Use this if you want to hide something on the board for an activity. You might also have students who cannot pay attention to you while you are discussing a topic, so you need to turn off the screen to regain their attention. Is also a perfect way to get something prepared before class on the board to use later.

## Extending the Display

On a PC, you need to right-click on the desktop and click Screen Resolution, then Multiple Displays, and Extend These Displays. To extend it on a Mac computer you need to head into System Preferences, then Displays; after that click on the Extend the Display to create a giant screen using two displays. This way, you can put what you want to show to the audience on one side where it is projecting to the class while the other can have your tools that are for the teacher's eyes only.

## Mirroring a Display

Most of the time, when you first hook up your projector or display, you make sure that it is set to "On" in the Settings. On a PC, you right-click on the desktop and click Screen Resolution, then Multiple Displays, and make sure that Extend These Displays is unchecked. To mirror it on a Mac computer you need go to System Preferences, then Displays; after that make sure the Extend the Display box is unchecked.

## Calibrating Touch Points on Your Board a Little Offset?

This is most likely due to the calibration not being set correctly. If you have an interactive display on wheels or one with a projector on an arm that is prone to shake around a lot due to lots of movement, then you need to calibrate it regularly. I always recommend getting interactive boards and projectors permanently mounted to a wall to reduce the frequency of calibrating your system.

The exact calibration process depends on the system you have. For the sake of staying with ever-changing technology, you will need to refer back to the manufacturer's manual for directions on how to do so. It is normal to calibrate once a week or once every other week. When you do calibrate, make sure to use a small pointer when touching the points on a screen. Calibrating will be more accurate and make the board more comfortable to use because the touch points will be more responsive.

## Drawing on an Interactive Display

Tip number one: Do not use an actual marker on your projection system, dry erase or otherwise. It will haunt you by creating marks on your displays that will never go away. There are usually pens that come with SMART Boards and Promethean displays.

If your system did not come with pens, you can use things like a stylus or a teacher's board pointer. There are styluses made in a larger width meant for little hands. Make sure the stylus or pointer is rubber-based. It mimics the human touch the best and allows for better interactivity on the board.

## Adjusting the Screen for Odd Angles

Sometimes you'll want to are set up your projector in an angle other than a straight-on projection. You should find two buttons on the menu that allow you to keystone the picture. This tool will adjust the image up and down, and left and right, to create the best square for the angle you have it. You most likely will not have keystoning on a TV display but will have a screen resolution setting that will allow you to make the picture bigger or smaller and adjust the size of the icons and images on the screen in front of you.

## Screen Clarity

The projector distance is vital for the best screen size and clarity. On most projectors, there are two turn dials on the front of the projector where the lens is. One fixes your blurry screen, and the other helps to make the screen smaller or larger to a certain amount. Also, if you are like me and are a little perfectionistic, you can better fill in the white space on your board with the picture coming from your projector to fill out the space.

## Turn Out front Lights

If it is hard for your students to see your projection system in the front of the room, then you may need to adjust the classroom's lighting. Perhaps the bulb is getting ready to die and is projecting a softer picture, or the board the image is projected on is not the best for this use. Turn off the front row of lights in your room to see it more comfortably. It will be better for the picture but also better for your eyes.