

**Infusing Performing Arts in Project Based Learning  
to Transform Secondary Education**

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## Abstract

Arts-infused, interdisciplinary project based learning is an emerging model of 21<sup>st</sup> century education that empowers students to succeed as critical and creative learners, enhances their sense of self and allows them to achieve deeper understanding of content knowledge. Through a synthesis of pedagogical philosophy and praxis, the curricular models presented in this thesis offers new solutions for secondary applied music in the context of the project based learning environment. It is my hope that this work responds to the needs and frustrations of teachers as they transform their existing teaching practices into a 21<sup>st</sup> century pedagogical approach.

## Introduction

*“Given a chance - given space - band students may break out of roles that are defined for them, and create opportunities (that extend beyond the traditional band experience).”*

*Randall Everett Allsup 2003*

*“The study must be filled with the action of discovery.”*

Pogonowski 1979

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It has been over twenty years, but I still distinctly remember the moment in high school when several of my musician friends and I had our aspirations squashed by the school administration. We were in our junior year and very interested in creating an independent study jazz combo that would meet each day for credit. We were very serious about jazz and improving our fluency in the music. It made complete sense to us that this would be a better use of our time in school than sitting in a study hall or the cafeteria during a “free period.”

We requested a meeting with the principal of the school and met with him in the band room during lunch. We described our vision for an independent jazz combo: we would listen to music, transcribe solos, compose and arrange music and work on improvisation and ensemble skills. At the end of the meeting the

principal said, "Sorry we can't make this happen for you." I can't remember if any reason was given or not. Perhaps it was the confusion of arranging this anomaly into the schedule, or they didn't like the idea of it being unsupervised. Whatever the actual motivation was for the principal to dismiss our request, the message was certainly clear: Students can't be left to tend to their own learning. What expertise or skills did we have to stay on track? Incidentally, in the same year, my high school was identified as one of the top 10 public high schools in the nation. Even at age 16, the irony wasn't lost on us.

Luckily we were all motivated to pursue our study of jazz outside of school and had supportive parents interested in our musical development. The following year, our combo professionally recorded a CD of original jazz and was awarded the distinction of best high school jazz combo by *DownBeat* magazine. Ironically, in order to enter the competition we had to get our band teacher's signature saying that we were a school sponsored group! Every detail of that accomplishment came from a group of four high school kids. Except for the fact that the bass player's mom drove us to the recording studio in Philly (and the band teacher's signature).

I am happy to say that three out of four of us have gone on to receive degrees in music and work as professional musicians still. But what if this was

someone else who didn't have the same supports or self confidence necessary to persevere?

The recipe for our success was fairly simple and unfortunately had very little to do with school. We were motivated by our musical passions and interests. We were in love with the music and wanted to immerse ourselves in it. We wanted to do everything possible to get better. Because the music was extremely *relevant* to us, our study of the music was extremely *rigorous*. Additionally, the nature of being four teenage musicians in a combo was also a very *social* experience for us.

All of these elements - relevance, rigor, social relationships - are the essential hallmarks of successful project based learning. What we intuitively were seeking out for ourselves in the late 1980's is just now being considered by traditional schools as a potentially better learning path. Luckily, more progressive organizations such as San Diego's High Tech High and the Expeditionary Learning Schools network have been paving the way for Project Based Learning for over a decade now.

In some respects, this thesis is an answer to the administrators and teachers that questioned our ability to learn and discover rigor through our

motivation. As I just mentioned, progressive institutions have been forging the way for Project Based Learning for some time now. Unfortunately, most (if not all) of these schools seem to be missing the mark when it comes to the performing arts. If applied music is an option in a school like High Tech High it tends to be an extra add-on. Band is still band. Jazz Band is still Jazz Band. They are not holistically integrated into the curriculum. Moreover, a motivated young musician would not have ample supports for performing arts education in a project based learning school. If such a student had any choice of where she could attend (and honestly, most students do not have too much choice when it comes to where they go to school), she could choose a performing arts school. However, many of these performing arts schools utilize a traditional “liberal arts” track for the “core academics.” But what if she could choose to attend a project based learning school that fully embraced and integrated the performing arts into the high school? What if the school was accessible to the advanced high school musician as well as the novice or even non-musician interested in learning more about music?

If my friends and I had been given the opportunity to pursue our musical interests I wonder what kind of opportunities and growth I may have missed as a result? Had I had the chance to study jazz and improvise every day in school, rather than solely practicing to play-a-long records at home, would I have been a stronger jazz musician today? And what if I could have done this in a project based learning school where the teachers supported this kind of interest and

coached us to strive for even greater aspirations? Perhaps it would mean that in addition to the daily combo work, we were also studying history and how it related to the African diaspora and African-American music. Perhaps it would mean that we were using Algebra to develop business plans and market our CD. Maybe we could have actually studied acoustical physics as it applies to the instruments we were playing day in and day out so that we could make concrete connections that were relevant and meaningful to us.

It is this kind of dream that this thesis attempts to realize. In the following pages I begin by outlining what project based learning is and how that relates to the pressing needs of young people today and the world that they will be leading tomorrow. I then move on to look at the disconnect between standardized testing and 21<sup>st</sup> century learning. From there the thesis begins to synthesize several pedagogical and curriculum development approaches (both non-arts-specific and arts-specific) as a means to developing a significant place for rigorous general and applied music learning in a progressive 21<sup>st</sup> century project based learning setting. Finally the thesis presents two such models, one which is a proposal (Arabic Music Expedition) and one that has been developed and implemented over the past year in the Cabot Middle School, The Global Citizen Project.

## WHAT IS PROJECT BASED LEARNING?

### Media Saves The Beach.

Californian high school students in an environmental class respond to Governor Schwarzeneger's funding cuts to monitor the San Diego coastal waters for pollution and bacterial growth. In field teams, the students travel to the beach and begin taking samples themselves to continue the important research that can save the coastal waters of their hometown. In addition to analyzing and reporting on the water samples, the students begin to work with their art and media teachers to begin documenting the story of the beach. Through their lab work, photo essays, web sites, video projects and even a self-published book the students make an impact on their local government and community. The title of this High Tech High project based learning course: *Media Saves The Beach*. As a culminating activity the students present their findings to the community through a presentation of learning event. At such an exhibition students not only celebrate their learning but must also convincingly demonstrate the rigor and extent of their learning through questioning by teachers, parents and community members.

## **Physics Rocks!**

9<sup>th</sup> grade students taking Math/Physics I, begin studying electromagnetism, gear ratios and acoustical physics. But this learning is not limited to a text book or even lab experiments. These students are applying and experimenting with this knowledge to develop functional electric guitars. Working with their physics/math teacher and an art teacher the students design and build electric guitars. At a presentation of learning students demonstrate to the community the necessary calculations used to lay out the fret board and the calibrations conducted to predict and create a functional tuning system for the guitar.

These two High Tech High classes, *Media Saves the Beach* and *Physics Rocks*, are just two examples of the many rich project based learning experiences offered to High Tech High students in San Diego, CA. At their core, both courses established relevance for the students, pursued rigor and were held accountable through public exhibition as just one piece of a broad yet nuanced assessment practice.

A common misconception about project based learning (PBL) is that people tend to think it is about making projects, such as making a tri-fold poster as a culminating activity at the end of an unit. In actuality though, PBL owes much of its philosophical grounding in Dewey's learning through experience and

the more contemporary work of Grant Wiggins and Jay Wiggins *Understanding by Design (UbD)*. UbD is a formidable curriculum development tool that guides the teacher-designer to establish enduring understandings, essential questions and meaningful assessment processes that ensure evidence of understanding through the careful planning of rigorous learning activity that is directly correlated to the desired understandings.

PBL is also guided by the concept of relevance for students and thus allows for a reasonable amount of student “choice and voice,” incorporates group work in which students are accountable to one another and participate in a cycle of revision based upon both teacher and peer feedback, and often results in the creation of something new that has real-world significance. The group component to PBL builds off of and supports recent findings in brain research attesting to the benefits and power of social learning -just look at Facebook as a testament to a teen’s interest in social networking (Jernstedt, 2011). Lastly, students know that their work will be publicly presented through performance or exhibition and therefore subject to “public scrutiny and critique.” (Larmer, Mergendoller, n.d. p. 4)

The technology education community is a strong proponent of PBL as much of the thinking and creative innovation of the tech world naturally correlates with the practices of PBL. In *Reinventing Project Based Learning*, a workbook

published by the International Society for Technology in Education (ISTE), Suzie Boss and Jane Krauss offer a wide range of 21<sup>st</sup> century applications for PBL including the use of blogs, learning management systems and Web 2.0 collaboration tools to support learning, assessment and overall project management. Moreover the book guides teaching teams from start to finish. Specifically Boss and Krauss recommend the development of asset maps to foster student learning dispositions as a means to supporting the social and emotional development of students, and offer suggestions on how to design the learning process to support student passion and deep inquiry all the way through to the assessment process.

Project based learning is not a new concept. The basic pedagogical principles that back up PBL can be traced back to the nearly century old thinking of Thomas Dewey. It is an irony that the key driving points backing up the 21<sup>st</sup> century skills movement are in some respects an implementation of Dewey's philosophies; a sad reminder of American education's sluggish momentum towards change (Innovation Economy, 2010).

The essential difference between "now" and the past 100 years of education is that we are finally witnessing these progressive principles being implemented, tested, researched and reviewed in schools not only across the nation, but also throughout the globe. From Singapore to Finland to San Diego,

educational institutions have been forging strong benchmarks and curricular material to inspire teachers and institutions. Although the United States is considerably lagging in this global education transformation (Innovation Economy, 2010), American teaching and learning organizations such as the Expeditionary Learning Schools (ELS), the Coalition for Essential Schools (CES) and High Tech High (HTH) serve as exemplary models for the rest of the nation. Through graduation rates, standardized test scores and (most importantly) quality student work demonstrating critical and creative thought, these organizations have proven the effectiveness of their progressive methods. Since opening its doors in 2000, High Tech High (HTH) has boasted a nearly perfect graduation rate. Between 2003-2008, 100% of the school's seniors have graduated and 99% have gone on to attend college (High Tech High: College Data at a Glance, 2008).

In a variety of third party studies and in-house data collection based on standardized test results the Expeditionary Learning model bears similar results. Based on a two year average (2008-2009) students participating in Expeditionary Learning Schools (ELS) across the nation outperform non-ELS district counterparts. King Middle School in Portland, Maine particularly stands out as a model ELS school. As Principal Mike McCarthy explains, "At King, even though 55% of the kids are on free lunch and 33% of them are second-language learners—and speak 31 different languages—we score above the state average in every curriculum area at every grade level" ([www.elschools.org](http://www.elschools.org), 2009).

While these statistics are remarkable, test results are arguably irrelevant when placed in the context of student learning dispositions or engagement. Nor do the tests report on the social and emotional growth of students. Perhaps the best articulation of these criteria are in the examples of actual student work. In Expeditionary Learning Schools and at High Tech High the curriculum and learning determines the culture. Students are responsive when they can actively engage in pursuits that are relevant and have authentic impact on their lives and communities. This includes the publishing of student written books on the ecological concerns of the Southern Californian coastline to developing a DNA tagging process now used by rangers in East Africa to combat poaching. When students are engaged in their work, issues of behavior and conduct are minimal. As teacher and *Edutopia* writer Eeva Reeder attests in her article, *The PBL Launch Pad*,

At the high school level in particular, authenticity is critical to learner interest. It trumps topic for motivating power. Students tend to be more engaged when they know they're doing the same kind of work adults do than when they're given a fictitious, facile, or trivial undertaking on a topic they may find more inherently interesting.

(Reeder, 2007, p.1)

## 21<sup>st</sup> Century Skills for a Not-So-New Century

Equally, there is a contemporary confluence of cultural critics, education researchers and everyday teachers throughout the world reaching similar conclusions and observations about what it means to be a learner and educator amidst the rapidly evolving 21<sup>st</sup> century landscape. In *The Global Achievement Gap*, Harvard education researcher Tony Wagner paints a panorama depicting the modern education paradigm and the *needs* of a whole new century of young learners. These needs (for better or worse) are partly the result of a socially networked digital generation empowered by a multi-sensory, interactive multi-media lifestyle (Wagner, 2008). When we consider the impact of the global economic transitions and pressures on education as we grow into the 21<sup>st</sup> century in conjunction with the transformation of our world's new learners it feels as if pedagogy is facing a perfect storm. Wagner uses *The Global Achievement Gap* to present seven survival skills as a beacon of navigation amidst this storm (Wagner, 2008):

### **TONY WAGNER'S SEVEN SURVIVAL SKILLS FROM THE GLOBAL ACHIEVEMENT GAP:**

- Critical Thinking and Problem Solving
- Collaboration across Networks and Leading by Influence
- Agility and Adaptability
- Initiative and Entrepreneurialism
- Effective Oral and Written Communication

- Accessing and Analyzing Information
- Curiosity and Imagination

Similarly, Daniel Pink's work, *A Whole New Mind*, reaches beyond the education world and articulates the needs of the 21<sup>st</sup> century workplace. Again a bulleted list (Pink uses six) is used to articulate the abilities required for success in the modern global economy:

**DANIEL PINK'S SIX ABILITIES:**

- **Design:** *The ability to use design is a demonstration of higher order thinking that can be nurtured in our students to cultivate beauty and make a difference in the world. Quality design is not easily replicated by outsourcing or technological automation and thus provides a competitive edge in business.*
- **Story:** *"A pathway to holistic understanding" that is complemented by emotion. In the context of education this is valuable in that people are more likely to remember concepts and information when placed in the context of story rather than just isolated facts and concepts.*
- **Symphony:** *Identifying and integrating relationships across divergent sources into big picture thinking.*

- **Empathy:** *The need for empathy relates to the holistic embrace of both the left brained sense of order and emotional detachment along with the right brained inclination for emotional understanding.*
- **Play:** *When people are having more fun, they are more engaged and therefore more productive. This can be seen in a major corporation like Southwest Airlines or a classroom shared by teachers and students enjoying themselves.*
- **Meaning:** *Being part of something larger than yourself. When a person feels connected to the greater world they are adding to the narrative of meaning in their lives.*

He stresses a felicitous need for these skills against the backdrop of the dynamic global landscape: Asia's rising workforce, the automation of the digitally networked world and the general abundance of the Western world. While Pink's intended audience in *A Whole New Mind* mostly addresses the business world, lawyers and health professionals, perhaps the workforce most in need of these skills are our nations' public school teachers. Not only are today's learners in need of an education that supports the development of the six abilities, but they are also today's consumers and thus expect an educational experience that rises to the same levels of mass customization. In other words, if students are to learn these skills, our schools must embrace the very same qualities in their approach to educational design. The educator must be a designer and a storyteller, a

holistic big-picture thinker with a sensitivity to her students' feelings, a synthesizer of information who can orchestrate a greater meaning from disparate pieces while maintaining a passionate yet playful zest for life. A tall order for sure.

### **21<sup>st</sup> Century Skills in Schools Today**

Luckily, these types of skills and abilities are at work in many of the above-mentioned schools such as High Tech High (HTH), Expeditionary Learning Schools (ELS) and the Coalition for Essential Schools (CES). Indeed, the foundational thinking of CES founder TheodoreSizer is evident throughout much of Wagner's list and the work of these schools. The project based learning environment of High Tech High allows for all of these skills to be addressed and continually improved upon.

Throughout his trilogy of books featuring the fictitious teacher Horace Smith, Sizer's works discuss a set of "ten habits of mind" (Sizer, Appendix A 1996). Building off of this work in 1995 Ted Sizer and his wife Nancy founded the Francis W. Parker Charter Essential School. Much of the teaching and learning at Parker is about nurturing an intellectually engaging environment in which the habits of daily academic work and life are clearly defined. The overall tone of the school reflects this effort through the mastery of "Habits of Learning in daily work/school and life" Similar to the Habits of Mind, the Habits of Learning are practical

guidelines meant for the students to practice towards mastery of disciplines and thinking (“Curriculum and Assessment,” n.d.). The following bulleted list provides a description of Francis W. Parker Charter Essential School’s Habits of Learning as follows:

### **Parker School Habits of Learning**

**Inquiry.** Intellectual curiosity and wonder about the world.

**Critical Thinking.** In both school life and daily life, you analyze, synthesize, and draw conclusions from information. You generate solutions to problems using both creative and rational thought. You keep an open mind and appreciate different points of view. You seek out excellence.

**Collaboration.** In both school life and daily life, you contribute to the overall effort of a group. You work well with diverse individuals and in a variety of situations, using effective communication skills (consulting, listening, speaking).

**Organization.** In both school life and daily life, you sift through ideas and data, arranging them wisely and making sense of them. You come to school prepared with what you will need. You set reasonable goals, then plan and manage your time so as to meet them. You persevere in the face of obstacles.

**Attentiveness.** In both school life and daily life, you focus on the task at hand, observing and taking in the information you need to do it well.

**Involvement.** Both in school and in the larger community, you take the initiative to participate in the process of learning. You contribute your questions, ideas, and actions in group discussions, activities, and projects.

**Reflection.** In both school life and daily life, you review and think about your actions and the work you produce, with the purpose of learning more about yourself and the work.

Through the nurturing of these habits and the expectations of eventually mastery, a culture of intellectual curiosity and mutual respect is *lived*. Even the overall organization of the school differs from the traditional high school. Rather than grade levels, the 7 - 12 school is divided into roughly two year divisions. Generally students cycle through a division for two years before they are “promoted” to the next. Promotion requires a rigorous demonstration of mastery of the benchmark skills and thinking for that particular division. Students are assessed on a scale of JB (*just beginning the division standard*), A (*approaching division standard*), and M (*meets division standard*).

The 21<sup>st</sup> century learning movement and schools owe much to Sizer. Namely, his contributions have had significant impact on the role of critical thinking, exhibitions of learning, the need for personalization and real-world (authentic) relevance, and the nurturing of a safe and democratic learning environment.

### **PULLING IT ALL TOGETHER FOR TEACHING AND LEARNING: The 4 Cs & 3 Rs**

Naturally, there is much overlap between all of the above mentioned skills, abilities and habits. Separately and together these attributes serve as touchstones of the Project Based Learning environment and for engaging the learner’s mind and social and emotional dispositions.

Furthermore, all of the above mentioned skills, abilities and habits can fall into a synthesis of two frameworks: the **4 Cs** (critical thinking, creativity and innovation, collaboration and communication) as developed by the *The Partnership for 21<sup>st</sup> Century Skills (P21)*<sup>1</sup> and **The Rigor/Relevance Framework** as presented by Willard Daggett's education consulting organization, *The International Center For Leadership in Education (ICLE)*.

Towards the goal of serving as a “catalyst to position 21<sup>st</sup> century readiness” of American K12 schools and students, the partnership has created the 4 Cs as part of a larger framework that integrates desired student outcomes with the necessary support systems to realize the outcomes.

The Rigor/Relevance Framework juxtaposes two continuums, Bloom's Knowledge Taxonomy (Rigor) and an Application Model (Relevance) developed by Daggett, to generate four quadrants in which learning and knowledge is acquired and/or used. An essential component to the Rigor/Relevance Framework (R/R Framework) is establishing a learning environment that instills “respect, honesty, civility and tolerance.” Once these dispositions are established a pathway to relevance and rigor can begin. Using Bloom's

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<sup>1</sup> *P21* is a non-profit jointly sponsored the U.S. Department of Education, the National Education Association and a variety of technology businesses such as Apple, Cisco, Dell, AOL/Time Warner, etc).

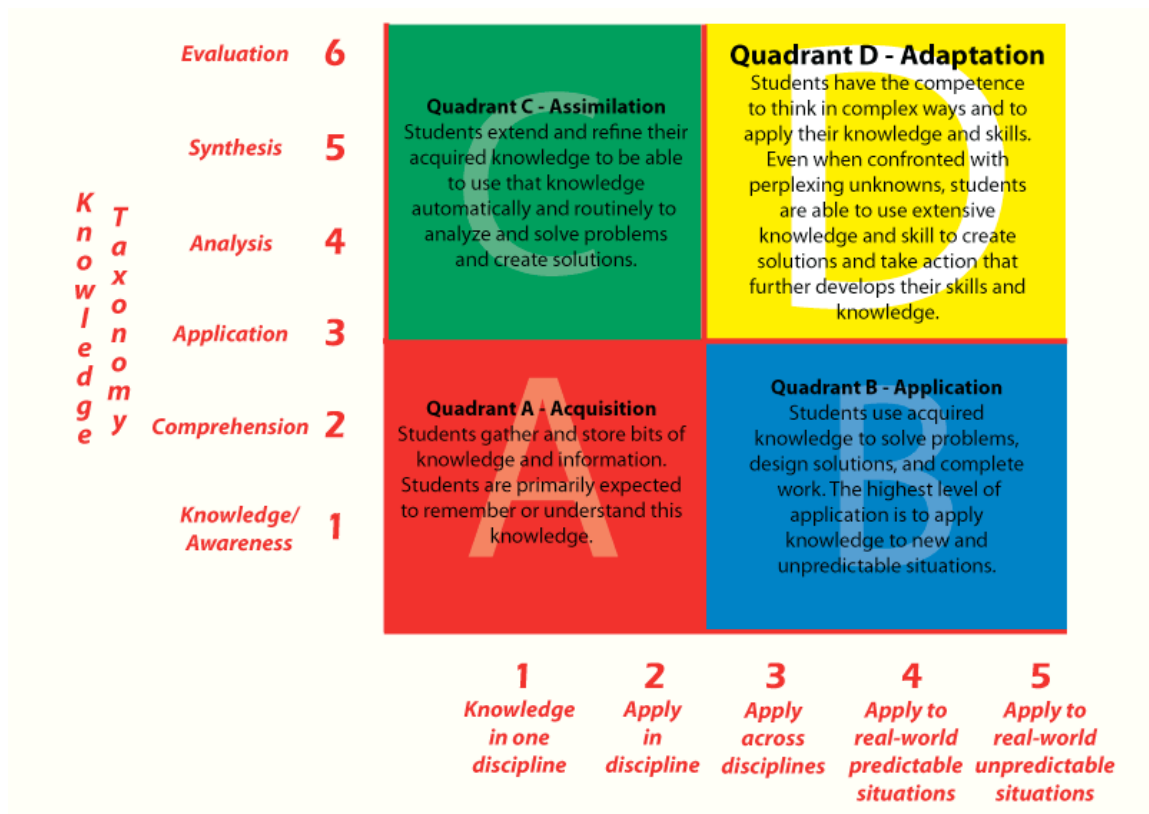
Taxonomy as a means of establishing a continuum of lower to higher order thinking skills, Daggett (2011) and the staff of the International Center for Leadership in Education define rigor as:

Academic rigor refers to learning in which students demonstrate a thorough in-depth mastery of challenging tasks to develop cognitive skills through reflective thought, analysis, problem solving, evaluation, or creativity. It is the quality of thinking, not the quantity, that defines academic rigor, and rigorous learning can occur at any school grade and in any subject. (Daggett, 2011, p. 3)

Relevance is defined as a means of establishing context for students in which they can apply their skills and knowledge. When teachers provide a sense of relevance in the students' learning, the students are more likely to be motivated and "actively engaged" with their work. In short, it is meaningful and therefore purposeful.

The Rigor/Relevance Framework applies Daggett's Application Model to establish a continuum of knowledge, understanding and skill application from a single discipline in the classroom to several disciplines in unpredictable real-world situation.

## The Rigor/Relevance Framework:



www.leadered.com

Using the 4 Cs and the 3 Rs of the Rigor/Relevance Framework as “umbrella reference points,” the 21<sup>st</sup> Century Learning Dispositions table on the following page aligns and correlates the attributes and bulleted lists of Tony Wagner’s seven survival skills, Daniel Pink’s six abilities, Theodore Sizer’s habits of learning, High Tech High’s design principles and the Expeditionary Learning Schools core practice benchmarks.

	21 <sup>st</sup> Century Learning Dispositions						
	Partnership for 21 <sup>st</sup> Century Skills 4 Cs				International Center for Leadership in Education 3 Rs		
	Critical Thinking	Creativity & Innovation	Collaboration	Communication	Relevance	Rigor	Relationships
<b>WAGNER: SEVEN SURVIVAL SKILLS</b>	Problem Solving and Critical thinking  Accessing and Analyzing information	Curiosity and imagination.  Initiative and Entrepreneurship	Collaboration across networks and leading by influence	Effective Oral and Written communication.	Curiosity and imagination.  Initiative and Entrepreneurship  Agility and Adaptability	Accessing and Analyzing information  Problem Solving and Critical thinking  Curiosity and imagination.	Initiative and Entrepreneurship  Collaboration across networks and leading by influence
<b>PINK: SIX ABILITIES</b>	Symphony  Design	Design  Play  Empathy  Symphony	Play  Empathy	Story  Play  Empathy	Play  Meaning	Symphony	Empathy
<b>SIZER: HABITS OF LEARNING</b>	Inquiry  Critical Thinking  Reflection	Critical Thinking  Expression	Collaboration	Expression  Reflection	Reflection	Inquiry  Critical Thinking	Involvement
<b>HIGH TECH HIGH: DESIGN PRINCIPLES</b>	Common Intellectual Mission  Teacher as Designer	Common Intellectual Mission  Teacher as Designer	Teacher as Designer  Adult World Connection	Teacher as Designer  Adult World Connection	Adult World Connection	Common Intellectual Mission	Personalization
<b>EXPEDITIONARY LEARNING SCHOOLS: CORE PRACTICE BENCHMARKS</b>	Active Pedagogy  Learning Expeditions	Active Pedagogy  Learning Expeditions  Culture and Character	Learning Expeditions  Culture and Character  Structure	Learning Expeditions  Culture and Character	Learning Expeditions  Active Pedagogy	Learning Expeditions  Active Pedagogy  Culture and Character  Leadership and School Improvement	Learning Expeditions  Culture and Character  Structure

This table will prove useful as a reference tool when developing curriculum for a PBL learning environment for 21<sup>st</sup> century learning. Particularly when considering the desired results for students (i.e. Pink’s big picture “symphony”

thinking) in comparison to a particular method or approach (i.e. ELS learning expedition). Furthermore, as we begin to consider what a meaningful applied performing arts curriculum infused with a PBL learning environment looks like, the table will also serve as a litmus test for the current use (or lack) of performing arts infusion in some of these model schools. In other words, a valid question may be: While the visual arts play a significant role in High Tech High's *Common Intellectual Mission*, to what extent does applied music serve this purpose? How does HTH's use (or lack) of applied music compare to that of an Expeditionary Learning School such as King Middle School in Portland, Maine?

Moreover, in the following chapter the essential gleanings from the table will be superimposed with several approaches to performing arts pedagogy, curriculum development and assessment.

## **OPPOSITE DIRECTIONS: STANDARDIZED TESTING AND PROJECT BASED**

### **LEARNING**

Since the creation of Francis W. Parker in 1995 there have been a growing number of schools that have successfully implemented variations of the above criteria. These schools have responded to both the despondency of students and the business world's call for critical and creative thinkers. As Michael Dell (of Dell corporation) told Ray McNulty (International Center for Leadership in Education), "We do not want problem solvers . . . . we want people who can predict problems before they happen (McNulty, 2011)."

McNulty is also quick to point out that transformation can not follow policy. “Policy is the last thing to change. Don’t use rules as a reason to stagnate (McNulty 2011).” Nonetheless, amidst this popular burgeoning call to action, public education is still subject to policy; namely standardized testing. This means that while our nation’s public schools are being encouraged by researchers, writers and politicians to move towards 21<sup>st</sup> century transformation they are also under intense pressure to achieve higher test results. As the conditions of the No Child Left Behind act mandate yearly improvement on standardized tests, the stakes will eventually become too high. Indeed this was the case, as recently reported in the 2011 publishing of the nation’s standardized test scores - an overwhelming number of schools will be listed as “failing” (Walsh, 2011). Thus causing a flood of concern from parents and community members who have only been given one side of the picture and tend to equate their personal schooling experiences of rigor and high expectations with test preparation. Meanwhile, this type of fear generates suspicion of the PBL approach and creativity as extraneous components to schooling. As recently demonstrated by a Vermont Department of Education publication, *The Roots of Success*, which outlines eight characteristics of effective schools that have achieved top scores regardless of economic adversity. Generated from extensive field research and interviews of Vermont’s highest scoring schools this 8 point list includes:

**1. High Expectations:** *The belief that all students can succeed*

- 2. Continuous Improvement:** *The belief that school staff are ultimately responsible for students' success and must therefore continually improve their practice*
- 3. Leadership:** *Effective school leadership that helps translate these beliefs into practice*
- 4. Use of Data:** *Ongoing use of data to provide feedback to staff as well as monitor and support students*
- 5. A Professional teaching culture:** *that supports high- quality instruction and is characterized by staff collaboration, trust among staff members, strong staff commitment and dedication, and effective paraprofessionals*
- 6. Student Supports:** *a comprehensive and highly functioning support system for students who struggle academically, emotionally, behaviorally, or socially, including early intervention programs*
- 7. School Climate:** *A supportive school climate that makes all students, as well as adults, feel valued and safe*
- 8. Family Engagement:** *A commitment to building constructive relationships with families and involving them in their child's learning*

While all of the above criteria are indeed necessary for a school's success there is too much room for subjective conjecture on some points. For example, the definition of "high expectation" is highly subjective. When compared to the Rigor Relevance Framework, it is fair to conjecture that high expectations are not about students memorizing 2000 terms for an A.P. test or solely about deep

thinking within a subject. Rather, learning occurs in a variety of distinct and overlapping modes that range from the “A” quadrant process of acquisition to the the “D” quadrant activities of transferring knowledge across fields and synthesizing divergent strands of information in real-life situations that are often unpredictable.

If we are teaching to the test, the high expectations are that all children will succeed on the test and receive high marks for their ability to take a certain type of test and their abilities to provide facts and information. Furthermore, high test scores on an outmoded test mean very little to the leaders of the 21<sup>st</sup> century teaching and learning movement, as Tony Wagner discusses in *The Global Achievement Gap*:

Our current accountability system primarily tests how much students have memorized and can recall at a given moment in time, and there are fifty different state standards for what it means to be proficient - none of which meet the standards for what it means to be proficient - none of which meet the standards for work, college, or citizenship in the twenty-first century. This system is shaped by obsolete notions of academic rigor and by political and financial considerations. (Wagner, 2008)

The overall tone of the *Roots of Success* report relates a “20<sup>th</sup> century model” with references to student time with specials teachers as planning opportunities:

We have lots of classrooms visiting different specials so that's when it would be a nice time to get together. But we don't all have our kids gone at the same time so that's definitely a challenge. I think they tried but it just, it was impossible [due to scheduling]. (VT Dept of Education, p. 6)

The report also presents immense teacher commitment as a key component to success (i.e. high standardized test scores), citing examples of teachers lying awake until two in the morning contemplating how to further challenge their students in math:

Our deep caring for kids. That's a big component and everybody just pushes beyond. We have teachers that are in here at 6:00 in the morning (who don't) leave until 6:00 at night. We have teachers that come in on weekends. We have paraprofessionals staying after and working in the after school program. They don't have to do that. They could go home but they want to do that . . . Teachers at Pine Tree were even willing to give up a day of their spring vacation to attend a professional development workshop. (ibid. p 33)

One distinct commonality to all of the schools listed in *Roots of Success* is that none of them are secondary schools. Some are K-6 and some are K-8, but none are K-12 or go above grade 8. This is because the writers of the report

wanted to make use of multiple years of NECAP (New England Common Assessment Program) data which at that time precluded high schools. Thus, it is fair to question the relevance of such a report to secondary schools involved in transformation. Particularly when a cursory glance at the eight characteristics of effective schools doesn't seem to address any of the inspiring skills, abilities or guiding principles of either the ELS or CES schools. In fact, in the sixty-three page report there was next to nothing mentioned about critical thinking, creativity, collaboration or problem solving for students. This doesn't necessarily mean that students aren't engaged in these type of learning activities, but given the pervasive tone of "20<sup>th</sup> century" perspectives throughout the report, and the subjective nature of the eight characteristics of successful schools it is fair to presume that the policy goals of a state department of education are not necessarily aligned with the aforementioned 21<sup>st</sup> century criteria.

Yet, if we cross-reference the eight characteristics with the practices of High Tech High (HTH) it is also very easy to check off each trait as an essential practice of HTH (Buck Institute for Education 2009). Furthermore, by taking the cross-comparison process a step further and placing the eight characteristics in the context of the 4 Cs and 3 Rs, the 4 Cs are notably absent. Based on the report, only one of the 3 Rs - *relationships* - is at play in Vermont's highest achieving schools. At its core, the report is about the belief in every student's ability to succeed and the personal commitment from the teachers to the students and their families. There is no question that these successful schools

have established a learning culture comprised of dedicated teachers who have engaged in relatively meaningful relationships with the student's and their families. These schools have achieved remarkable test scores despite the economic disadvantages of their students. Nonetheless, the question of 21<sup>st</sup> century preparation still remains: Are these "highly effective schools" preparing their young people for the imminent workplace demands of their adulthoods? Moreover, when we consider the positive test results of King Middle School and High Tech High which approach is more rewarding and meaningful for students and teachers?

Amidst a global call for high school graduates equipped with higher order thinking skills and prepared to embrace challenges we've yet to imagine, policy makers and school administrators are on the one hand using arguably irrelevant testing data of high-scoring schools to drive teaching and learning practice while at the same time urging schools and teachers to incorporate critical thinking, creativity/innovation, collaboration, and communication as part of their teaching - all of the essential ingredients to project based learning (Innovation Economy 2010). There is an obvious discrepancy between the nuts and bolts policy-driven *Roots of Success* and the inspiring calls to action from Wagner, Pink, Larry Rosenstock (High Tech High), as well as the highly influential Expeditionary Learning Schools who's work in the field exemplifies both the 4 Cs and 3 Rs of 21<sup>st</sup> century learning. Moreover, their work as portrayed by both their celebration of student products, exhibitions of learning and their institutional promotional

material embodies and emits the essence of creativity and aesthetics. Like *The Roots of Success* schools, these exemplar 21<sup>st</sup> century schools consciously foster and nurture their learning cultures. It's likely that the similarities end there however. Unlike the characteristics of *The Roots of Success* schools, the Expeditionary Learning Schools and High Tech High place innovation, design, creativity and critical thought at the center of their work. As Larry Rosenstock, has said, "Yes we are going to teach science, engineering and math, but we're also going to load it up with art and design. Afterall, art and engineering are integral . . ." (Pearson, Mobile Learning, 2009).

### **TEACHER AS DESIGNER & THE DESIGN APPROACH**

<b>Good Design :: Good Teaching</b>	
Good design should be innovative.	Good teaching should be innovative.
Good design should make a product useful.	Good teaching should make a concept useful.
Good design is aesthetic design.	Good teaching is aesthetic teaching.
Good design will make a product understandable	Good teaching will make a concept understandable.
Good design is honest.	Good teaching is honest.
Good design is unobtrusive.	Good teaching is unobtrusive
Good design is long-lived	Good teaching is long-lived
Good design is consistent in every detail	Good teaching is consistent in every detail
Good design is environmentally friendly	Good teaching is environmentally friendly (think resources)
Last but not least, good design is as little design as possible	Last but not least, good teaching is as little teaching as possible (think PBL)
<p><i>Dr. Brian Wis, reflecting on the parallels between design and teaching. The original design comments on design are from Dieter Rams, former design director for Braun. Dr. Wis comments are regarding teaching and learning on the right.</i></p> <p><a href="http://teachingmusic.posterous.com/good-teaching-by-design">http://teachingmusic.posterous.com/good-teaching-by-design</a></p>	

This section will explore the role of the design approach in education and the pedagogical and aesthetic values offered by this approach. To fully consider

the implications and context of the design approach in education, we will also look at the tension that exists between art, creativity and design.

Meredith Davis, a key figure in both the design and education realms, discusses the merits of design in education and its implications for 21<sup>st</sup> century learners in her writings for the *Arts Education Policy Review*, “The learning outcomes of a design education are consistent with what experts agree are necessary skills, knowledge, and attitudes for individual success and the nation’s global competitiveness in the next century (Davis, 1998, p. 2).”

In the humorously titled *Help us Creativity Researchers, You’re Our Only Hope*, Makel (2009) cites the economics work of Heckman, Stixrud, & Urzua, suggesting that creativity may be just as important to the future success of our nation’s workforce as cognitive ability (Heckman, Stixrud, & Urzua, 2006). Referencing the work of Richard Florida (2005), Makel posits that the “United States has outgrown not only its industrial roots, but also the knowledge economy as well.” This is a close correlation to Daniel Pink’s thinking in *A Whole New Mind*. Indeed, a significant portion of Pink’s argument is that outsourcing, automation and abundance will by default require our nation’s workforce to excel in creativity and innovation if Americans are to have a significant role in contributing to the global economy let alone maintain our positioning as an economic leader. To drive home this point, Pink cites the

British analyst John Hawkins estimate that in less than 15 years the international creative economy will be worth around \$6.1 trillion. (Pink, 2006, p. 56)

As Davis points out in *Making a Case for Design-Based Learning*, the principles of design have much to offer 21<sup>st</sup> century education. The approach to design can be used by teachers of any subject to foster creative problem solving. Moreover, the process of design also nurtures a student's aesthetic sensibility and the artistic impulse while maintaining objectivity. Davis illustrates that the "inherently interdisciplinary (ibid. p. 2)" nature of the designer's *process* is central to problem solving. The 4 Cs- critical thinking, creativity, collaboration and communication- are all key components to the design process. When this approach is successfully embedded into teaching and learning, students are then empowered to practice synthesis of information and transfer of knowledge across disciplines - essential attributes of 21<sup>st</sup> century project and problem based learning.

Building off of the research of Nigel Cross (1983, p. 221-222), Davis perceives an innate benefit to the design process in that it can comfortably place itself in between the humanities and the scientific approach. A distinct advantage to this positioning is that it offers an additional area of education in which the design process uniquely makes use of the "knowledge and skills from both the sciences and humanities" and thus makes possible a new lens in which

we can understand and articulate the world. Davis summarizes the pedagogical benefits of the design process as follows:

An open-ended alternative to the scientific method, and more easily explained and analyzed than intuition, this cyclical process begins with the identification of a problem, involves research and the ranking of priorities that often appear to be in competition with each other, tests the viability of multiple solutions through prototypes, and ends with the evaluation of objects against a socially mediated set of performance criteria. (Davis, 1998, p. 2)

Davis goes on to maintain that the design experience becomes user-centered rather than artist-centered. While there are obvious educational benefits to be gained from the design approach, this type of duality illuminates a tension between the roles of design, art and creativity in the context of education. With design there is a creative process at play but the very notion of generating a user-centered “product” suggests a relegation of “art for arts sake” to a lesser role. In the case of arts education, a similar precedent has already been set; specifically the potential of arts education as a means to boosting student achievement. This type of thinking has precipitated response from arts education researcher Elliott Eisner who has been quick to condemn proclamations regarding the benefits that the arts provide to a students’ math or reading scores. In an article for *Art Education*, Eisner questions the implications of this situation:

When such contributions [from the arts to other disciplines] become priorities, the arts become handmaidens to ends that are not distinctively artistic and, in the process, undermine the value of the arts' unique contributions to the education of the young. (Eisner, 1998, p. 7 - 15)

Eisner stipulates that there are three gradations to the outcome of an arts education (1998). One in which art is taught to achieve artistic skills and fluency that can be purely engaged in for the sake of personal exploration and expression; the second involves instances in which an artistic design sense is employed to generate and understand aesthetic features in our day to day worlds; and thirdly (which Eisner fears will be mistaken by educators as the most important use of the arts), the processing skills gained through the arts that can be used to improve their work in other disciplines.

As long as the arts are recognized as a core activity in itself and are practiced in a manner that supports creative growth and arts skills development there is no reason to shy away from the potential of all three gradations when developing curricula - particularly with an arts infused project based learning curricula. In such a learning environment, time is afforded for concrete skill development, backed up by appreciation and literacy and applied through creative exploration, practice and performance. In this setting the arts skills and processes are fostered, experienced and celebrated through a holistic infusion.

As a result of this enhanced learning climate, the students' social and emotional growth is nurtured, increasing learning disposition and academic achievement.

(State Department of Education CT, 2010)

The design approach draws from a creative source with one foot in the subjectivity of "Art" while maintaining the other foot in the problem-based objectivity approach. Simultaneously, the subjective aesthetic model is a very useful tool when used in a project based learning environment. This means that we are talking about two components to the integration of the design process into PBL. There is the *process* as a tool: cyclical revision that has real world implications and stakes; and there is the consideration and application of *aesthetic subjectivity* that considers the user and strives for the best end-user experience possible (be it a student generated press release, or an iPad). In other words, the role of design in project based learning is two fold. There is the design approach which is simply a process employed by teachers and students involved in a creative cyclical revision towards the creation of a useful product or presentation. And then there is the employment of aesthetic decision making. This takes place when students are considering the composition of their products and



fig. 1



fig. 2

presentations. These two processes may take place simultaneously and separately. In PBL, there is an inherent real-world applicability in which there are likely several solutions to a problem that the student must anticipate and negotiate with towards completion. The design approach to problem solving and careful consideration and use of aesthetics in one's work provides a creative touch and thus a human accessibility to the end result. Whether it is a student made website or public exhibition of learning, the final product that the student presents will ultimately be more successfully received by others if a consideration of presentation, design and creativity is used.

High Tech High describes their pedagogical philosophy in terms of "Design Principles" and views each teacher as a designer:

High Tech High has also created a more recent design principle, known as teacher as designer. The design principles permeate every aspect of life at High Tech High: the small size of the school, the openness of the facilities, the personalization through advisory, the emphasis on integrated, project-based learning and student exhibitions, the requirement that all students complete internships in the community, and the provision of ample planning time for teacher teams during the work day ([www.hightechhigh.org](http://www.hightechhigh.org), 2011).

Any visitor to High Tech High in San Diego will immediately notice the curatorial-like nature of the buildings. The school is designed to showcase the

work of the students. While the work is artistic, it is also functional in that it demonstrates the rich learning of the students while also exhibiting its central contribution to the ambience of the school's culture. From visual mashups conflating mathematical equations that express the artistic inspiration of Basquiat's paintings (fig. 1) to a wall sculpture of bicycle wheels (fig 2) demonstrating aspects of a student's learning in physics, the work is an example of the school's conscious decision to visualize their pedagogical philosophy. This is an essential hallmark that illuminates the core of HTH's approach.

Every HTH student and faculty member develops a personal digital portfolio (DP). The design and presentation of each DP is as unique and diverse as the school's population. Similar to an art student's portfolio, the HTH student digital portfolio serves as an informal yet dynamic transcript of the students academic pursuits. The DP includes a brief biography, resume and personal description of each class the student has taken as well as his or her benchmark projects complete with a reflective narrative<sup>2</sup>. The teacher portfolio lists all of the courses taught by the teacher, syllabi, cross-disciplinary project descriptions and a bio. Many of the teachers also use this platform to communicate with students regarding assignments, class expectations and approaches to study skills for both traditional content learning and project based learning.

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<sup>2</sup> It should be noted that the range of quality is as diverse as its student body. Some DPs are incomplete and some are impressive expressions of personalized, rigorous learning.

There are two aspects of design that are central to HTH's success. One is the design approach that teacher's use to shape their teaching, projects and the student's learning processes. The second aspect is in the attention Rosenstock and his colleagues give to the physical layout and design of the school that directly promotes the school's learning culture. This can not be overlooked.

American schools have overwhelmingly neglected the elements of aesthetics, design and creativity. From the buildings themselves to the furniture, textbooks and other learning materials used, our education system has placed little value in the importance of design, environment and aesthetics. Even in our more affluent public schools there is a relative absence of creativity. Aesthetics are not even considered a part of the equation. Obviously graphic and web design are not part of a college teacher prep program, but when our teachers and schools must use these publishing and communication tools shouldn't the interface be inviting fun and inspiring rather than static, boring and adult-centric? Shouldn't this principle apply to our classrooms and schools just as much as our websites? Why must our school libraries, cafeterias and classrooms be based around efficiency and stem from an industrial era mindset?

Bill Strickland recognizes this shortfall as a major obstacle to the self esteem and economic empowerment of impoverished communities. This is abundantly clear when we review his transformational work in leading the

Pittsburgh-based Manchester-Bidwell Corporation (Strickland, 2002). For nearly 40 years, Strickland's focus has been on creating rich educational opportunities for Pittsburgh's low income children and adults through grace, beauty and respect. This business model for education has been so strong that it has attracted the support of major corporations and funders resulting in state of the art facilities for its students. Strickland firmly believes that if you create an atmosphere of dignity (through pedagogical approach and the facilities themselves) that people will begin to believe in themselves and then have the chance to transcend the cycle of poverty. Inspired by the success of Strickland's work he has been recruited by several cities across the nation to replicate the Manchester-Bidwell model.

Through a powerful yet subtle TED presentation (accompanied by Herbie Hancock on piano) Strickland demonstrates that aesthetics and quality design play a vital role in the learning environment. This sentiment is echoed on the Manchester-Bidwell website:

(An) environment shapes peoples lives. By constructing an empowering atmosphere of art, light, music (with) a staff that strives to realize the genius in everyone, we enable our students to become productive society members.( <http://www.manchesterbidwell.org/>, 2008)

## THE PERFORMING ARTS IN PROJECT BASED LEARNING

The performing arts share a similar pedagogical potential with design. A performer must think critically not only on stage but also in practice: in every moment a constant assessment process is at work in which the performer analyzes, evaluates and revises to guide the artistic expression to the next moment. The performer constantly collaborates and communicates with both the audience and fellow artists and ensemble members. A jazz musician works within a highly complex harmonic schema in which she engages in a musical conversation with the ensemble. Every musical thought put forth holds the potential to inspire her co-performers to react, respond and in turn contribute to the shape and outcome of the music. There is an immense amount of higher order thinking taking place. A rigorous display of creative expression, critical thought, collaboration and community. How does the jazz musician learn? Through practice. Through doing. Of course the proof of this example is not limited to jazz. Dance, music composition, and drama all share the same thinking potential. The performing arts are a prime model for the aspiration of the 21<sup>st</sup> century education movement. Moreover, the performing arts, regardless of country, culture or era have served as a beacon of expression for its creators and participants. Be it the centuries old canon of Javanese Gamelan, Brazilian Bossa Nova or the American Rock of the 1960's (including all of their respective aspects of dance and drama), these performing arts traditions are sonic and visual reflections of the time and space in which each of their respective cultures

exists. Like design, one would think that the performing arts learning approach would hold a critically influential role in any 21<sup>st</sup> century learning environment.

At the elementary level, there have been exceptional examples of arts infusion schools<sup>3</sup>; learning environments in which the arts play a critical role in the holistic learning experience. Under the leadership of Plato Karafelis, Wolcott Elementary in West Hartford, CT has established itself as a benchmark trailblazer in its work to infuse, creative writing, performing and visual arts into its teaching and learning culture.

This modestly sized suburban elementary school shapes its student's learning experience by fostering a school wide culture that recognizes (through its practice) the natural integration of arts and academics as a holistic experience. Learning at Wolcott uses the arts not only as an intentional vehicle of expression to celebrate and honor every child's voice but also as a lens in which students can better understand the world's history, people, physical and natural attributes.

While the number of elementary schools infusing, immersing or integrating the arts has continued to grow over the past two decades, secondary schools have not been as quick to do so. Unlike traditional secondary environments, the

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<sup>3</sup> In regards to higher order thinking skills and rigor, Collins and Chandler (1993) place arts immersion above arts infusion, relegating arts Infusion to that of a token trivialized daily activities such as songs and crafts projects that can easily be discarded without consequence. The Vermont Arts Council and similar organizations within New England discuss arts infusion as the exact opposite of the above definition. This seems to be a case of semantics.

elementary classroom can benefit from its 20<sup>th</sup> century remnants. In the elementary classroom students are grouped together in a relatively flexible environment in that they are not beholden to a complex schedule in which they are forced to “share” the students with 5 other teachers. In this scenario, the teacher has the ability to engage in interdisciplinary project based learning that is personalized and differentiated. Additionally, in the elementary school the study of music tends to be more generalized and isn’t unnecessarily complicated by the 20<sup>th</sup> century applied music artifact: band, orchestra, jazz band and choir<sup>4</sup>.

Historically secondary American performing arts education tends to take two paths: specialized performing arts schools with a separate academic program or a traditional school in which the arts are perceived as a distinct extra-curricular or academic entity unto itself. Furthermore, post-secondary performing arts education is perpetuated by a 20<sup>th</sup> century model in which its participants emerge from the university/conservatory experience shaped by teachers who were in turn shaped by their conservatory experience thus continuing an insular model of self-propagation. (Schipper, 2010, Kindle Location 1593)

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<sup>4</sup> Of course most upper elementary grades participate in applied music, but the nature of an arts infused learning environment in conjunction with less complicated scheduling issues allow for the potential to infuse the applied music experience into a holistic curricula.

All of the previously mentioned 21<sup>st</sup> century model secondary schools (HTH, CES, ELS, etc) have received national recognition for their work in laying the foundation for 21<sup>st</sup> century project based teaching and learning. Nevertheless, most of them have also lacked a distinct applied music performance program (as opposed to a general music course or instance in which students create electronic music without expert guidance). Some of these schools, if they have a band or orchestra program at all may meet before or after school or their experience is limited to personal exploration by individual students. In short, what is commonly lacking amongst all of these 21<sup>st</sup> century model schools is a rigorous performing arts opportunity that is integrated into the project based learning environment. By its very nature the performing arts are a great example of project-based learning. An effective performer must think critically, creatively, collaborate and communicate. Dan Pink delivered a keynote address to the Texas Music Educators Association in which he specifically identified the arts as fundamental to developing these exact skills:

“Artistry, empathy, inventiveness. collaboration, big picture thinking . . . mastery of these abilities are increasingly marking the fault line between who moves ahead and who falls behind in the economy. Now . . ., where does one learn artistry, empathy, inventiveness, collaboration? In the arts. Arts education has become central . . . not ornamental, but fundamental in preparing kids for their future rather than (our) past” (Pink, 2009).

Yet, even in the arts disciplines in which all of these 21<sup>st</sup> century skills are presumably so easily accessed, to what extent are traditional secondary applied music programs engaging the students to actually do this; to wonder, to think critically and innovatively, to synthesize across the disciplines to achieve holistic and deep big picture understanding? Janet Barrett of Northwestern University writes in the *Music Educator's Journal*:

Curriculum typically segments knowledge and understanding into separate disciplines. Although students acquire knowledge relevant to each discipline, their understanding can be limited, because "deep understanding often depends upon the intersections and interaction of the disciplines (Barrett, 2001, p. 27)

So why, even in even our nation's performing arts magnet and specialized schools, is there a division or gap between the "traditional" academics and the arts? And why are the leading schools of 21<sup>st</sup> century education not integrating the performing arts (specifically applied music) to their programs?

Historically, American high schools have been cemented into a routine that precludes a *curriculum driven* schedule as opposed to the typical schedule that drives instruction. The college preparation programs for music educators are

stuck in a perpetual cycle from the 20<sup>th</sup> century thus preventing innovation in instruction and practice. Furthermore, the current practice of music education schools is not to teach creativity, critical thinking or cultural literacy. A music education degree rarely requires more than one elective in global music, jazz or popular music (if they are offered at all). Once the graduates begin teaching in schools they will find themselves in institutions that again are a product of the 20<sup>th</sup> century applied music artifact - band, chorus, orchestra, jazz band. In short the system is backed up by decades of tradition making it very hard to transcend and implement transformation. But what if they could?

And if they did, what would it look like?

### **A NEW VISION**

If we imagine the perfect implementation of the 21<sup>st</sup> century skills what might it resemble?

A meaningful melding of the performing arts into a PBL environment will require the synthesis of a several theories and practices from the educational field - of which many have been explored above. Such a synthesis will also require a deviation from existing structure and expectations in the field of institutionalized school music.

The 21<sup>st</sup> century teaching and learning landscape is gearing up to prepare students to contribute to the post-industrial-post-knowledge era economy through creative synthesis and aesthetic sensitivity. They will be able to think critically, work collaboratively, engage in wonder to the extent that they will innovate and lead. This will be achieved through establishing relationships with our students, so that we understand them and can generate and facilitate relevant learning in their lives towards deep immersion in rigorous thinking.

By way of thematic, project based learning students will develop skills in accessing information to synthesize, analyze and evaluate in real-world scenarios. Through these processes, the social and emotional capacities of students will be nurtured through the honoring of artistic and personal expression. Students will be held accountable through rigorous presentations of learning in which they must knowledgeably defend their work. Furthermore in any group learning process students are held accountable by their peers both socially and by mutually agreed contract to uphold their end of the bargain. This is an acceptable pressure in that the student has found motivation through the personalization of their learning experience.

However, in a more realistic discussion, what does the actual curricula and day to day work look like? And how do the performing arts fit meaningfully into this kind of learning?

## **INTERDISCIPLINARY WORK AND MUSIC**

Art and music specialists have been wary of “integrated units” partly due to an unfortunate historical practice of token and less-than-thoughtful involvement. The teachers tend to be cautious when it comes to interdisciplinary units based upon past practices in which music may be relegated to a background accoutrement. Often the unit “goals, . . . rife with possibilities, are translated into pale shadows of pedagogical practice, such as . . . singing songs to learn about dinosaurs or dental hygiene” (Barrett, 2001, p. 27 ). Given this somewhat reasonable hesitancy, it is easier to understand why applied music has not found its way into secondary project based learning.

Furthermore, a significant majority of the literature on integration and interdisciplinary work is theoretical and anecdotal rather than research-based. Thus making it difficult to document the affect of integrated instruction on student learning (Wiggins, 2001, p. 41).

Seattle based music education researchers Arthur Ellis and Jeffrey Fouts also point out the problematic aspects of conducting quantitative research on a fluid pedagogical approach such as interdisciplinary learning.

Experimental research on interdisciplinary curriculum is very difficult to conduct and, therefore, rather rare. The interdisciplinary curriculum is, itself, a large holding company of educational variables that, put together, defy classic research methods that attempt to isolate a single variable to show some degree of cause and effect (Ellis, Fouts, 2001, p. 24).

Ellis and Fouts conclude in their 2001 *Music Educators Journal* article on the research base of interdisciplinary work in music that the expansive non-empirical claims of success “may only raise hopes beyond reasonable expectations.” (ibid. p. 26) Nonetheless, advocates for interdisciplinary learning have presented theories, frameworks and praxis methods that are paving the way for deeper inquiry and understanding in both music and its partner discipline(s).

One such solution is The Facets Model as presented by Barrett, McCoy, Veblen, in *Sound Ways of Knowing* (1997), a proactive interdisciplinary framework that upholds the integrity of the music. In this interdisciplinary scenario the music has the potential to be experienced at its fullest provided that the connections are valid, “organic,” and comprised of a mutually beneficial relationship in which the integrity is maintained for both disciplines. Like a gemstone, Barrett, McCoy and Veblen see artistic work as being multi-faceted and thus can be explored and interacted with from “many perspectives or facets that are posed in questions” (ibid., p. 29). Towards this goal, she presents three

categories that comprise an overarching framework for the the Facets Model: *context, properties, and expression.*

When considering *context*, teachers select repertoire that will facilitate the development of musicianship which includes a multi-dimensional grasp of the music. When exploring the context of a piece of music, the teachers and students consider the following questions:

- (1) Who created it?
- (2) When and where was it created?
- (3) Why and for whom was it created?

As Barrett reinforces, “Situating a work in its time and place of origin counteracts a generic view of work as mere combinations of pitches and rhythms” (ibid., p. 29). While these questions are primarily geared towards the Western school ensemble repertoire, they can easily be considered in the context of music outside of that canon such as international, jazz and popular musics. By asking these questions in an interdisciplinary model, students develop an understanding of who originally wrote or played this style of music and the historical and social/cultural significance and context in which it was created. Many music teachers may already discuss (or lecture about) these aspects of the music with their students and feel that there isn’t enough time available in the rehearsal schedule for a deeper interdisciplinary exploration

described above. However, as I will point out in the next chapter, an interdisciplinary model in a *project based learning environment* affords the teacher the time necessary to have students seek out the answers to these questions through active inquiry as well as sufficient planning time with other teachers.

The second category, *Elemental and Structural Facets* uses the building blocks of music (such as pitch, timbre, melody, rhythm, harmony, etc.) to assess the means in which the the music is organized. Analysis of this organization and its “aural evidence” not only illuminates the musical construction and sensibilities of a particular style, genre and/or era but it also contains the potential to reveal the historical lineage of the music, its aesthetic foundation and its relationship to the culture in which it comes from. Questions that help identify facets in this category include:

- (1) What techniques did its creator use to help us understand what is being expressed?
- (2) What does it sound or look like?
- (3) What kind of structure or form does it have?

Expressive Facets comprise the third category. The expressive qualities of music “emphasizes the range of meanings that a work may embody” (ibid.,pp. 30-31).

In this category there is rich potential for open-ended inquiry. It could be a discussion of the relativity of cultural aesthetics while studying the music of Egyptian singer, Umm Kalthoum or with an elementary general music class using Eric Carle’s *I See a Song* as a vehicle for creative and critical thinking. Barrett presents the example of a quote on the title page of Carle’s book which begins with the phrase, “I see a song. I paint music. I hear color.” (Carle, 1973) From here the teacher can engage the students in dialogue and inquiry, “How do you see a song, paint music or hear color?” Through music, art and writing the students can begin to synthesize their answers. Using tools of expression from one discipline to articulate meaning from another discipline, students can assemble an expressive performance of their inquiry. This exercise may seem trivial and elementary but it is this very kind of critical thinking that is blended with creativity and celebration of individual voice that will help nurture the next generation to develop the essential skills and attributes identified by TheodoreSizer, Tony Wagner and Daniel Pink.

A distinguishing trait of The Facets Model is that the interdisciplinary connections can arise from the music or art itself as opposed to themes and topics being “superimposed upon the music from the top down” (ibid., p. 31).

The interdisciplinary process empowers the student to explore one's basic impulse to strive for sense and understanding of the "big picture." This synthesis of divergent parts towards a big picture understanding is even more meaningful when the student sees the parallels in her own holistic interdisciplinary learning experience. It provides the student with the means to see herself as an active participant in the world.

The April 2011, Music Educators Journal published an article on the *Creative Music Strategy*. Lenore Pogonowski, Nathalie Robinson and Cindy L. Bell lay out a seven step instructional model that presents a teaching method to inform the composition and improvisation process using an interdisciplinary model. At the core of the creative music strategy is the application of higher order thinking skills found in the upper hierarchy of Blooms taxonomy, such as analysis, evaluation and creation. There are significant similarities between this approach and many of the pedagogical, critical thinking and open-ended essential questioning strategies presented in Boss and Krauss' *Reinventing Project Based Learning*. Specifically the use of formative assessment and the constructivist approach to learning in which the educator serves as a "guide on the side" so that the student can be supported in construct his or her own knowledge and learning. In addition to these practices, Robinson, Bell and Pogonowski also stress the need for the teacher to remove himself as the "sage on the stage," to foster a safe and nurturing learning environment and lastly to be creative. The teacher should have "personal experiences as improvisers and

composers to understand conceptually all of the intricate components involved when working creatively with students.” (Robinson et al., 2001, p. 51)

### **CREATIVE MUSIC STRATEGY**

1. Springboard for the Strategy: find relevance from the curricula (social studies, science, literature) to provide inspiration.
2. Develop an open-ended musical question: explore
3. Large-Group Brainstorming
4. Personal Exploration
5. Large-Group Conducted Improvisation
6. Record for Reflection
7. Reflective Aural/Oral Analysis

The authors' work is useful in that a specific process is utilized to generate creative thought, musical response and evaluation that is connected to their classroom studies (social studies, science, literature, etc). It is also one step closer for the academic world to get cozier with interdisciplinary learning. However, the strategy falls short too. Although there are many instances in the professional world in which composers and improvisers base their work off of historical events or as socio-political responses, there are at least as many in

which creative expression exists purely for its own sake. Still, the example of using the study of the Underground Railroad as a springboard for creative expression is arguably comparable to Coltrane's *Alabama*, a musical response to the 1963 bombing of a black church in Alabama in which four young girls were killed. One very distinct difference however, is that this immensely important and moving work was an authentic inspiration for Coltrane, not an academic exercise. While a student's work in class will be somewhat relevant to him or her, it may or may not be moving and an authentic moment for creative expression<sup>5</sup>.

### **FINDING AUTHENTICITY**

The informal learning work of British music education researcher, Lucy Green, has had a substantial impact on the music education practices of the United Kingdom resulting in a multi-million dollar private and corporate funded nationwide initiative entitled *Musical Futures*. In search of a means to establish more relevance for a population of increasingly apathetic music students in the UK, Green grounds her education work in the ways popular musicians learn, analyzing that process to develop more meaningful and relevant opportunities for students to learn music in school. Central to Green's informal learning process is the tenet that the students must take ownership of the learning process to instill motivation. To that end, Green's model calls on teachers to allow students ample time and space to work together to discover music on their own. Through the

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<sup>5</sup> Moreover, there is also the issue that students are potentially missing opportunities to learn the actual repertoire and significance of an era's musical output. In the areas of science and math, of course this point is moot.

formation of self-assigned “friendship groups” students collectively select a piece of music that they are all interested in and then they embark upon the process of figuring it out<sup>6</sup>. Additionally, teachers were instructed not to offer help during the initial stages unless asked by the students. Initially, progress was slow and frustrating for both the teachers and students, but then the light bulbs began to go off. Over the course of time, the students began to learn the songs and much in the spirit of constructivism began to piece together their knowledge through experience. Still during the initial stages of the experiment many of the music teachers cringed and had to force themselves not to intervene (or interfere).

This scenario might seem to cry out for a teacher to help pupils play more ‘correct’ drum patterns. Conventionally, a teacher will enter a room, see and hear a ‘wrong’ approach, and step in to correct it straight away. However, by sticking to the principles of the project in these early lessons, and standing back to observe rather than teach, the project team enabled some discovery learning and peer-directed learning to take place. (Green, 2008. p. 49)

The driving intention behind this rule was to provide students an atmosphere in which they were less likely to experience a crippling self-doubt as a result of the imposition of an adult in the room (or even, simply, someone not involved in the group learning process). Rather, students used a CD player to

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<sup>6</sup> In Green’s examples from the pilot research, the skill base within each group ranged from never having played an instrument before to novice level.

just listen to the music and figure it out. As a result, there was a unfamiliar experience of freedom and autonomy for students.

Throughout the experiment teachers began to understand their own role as mentor or coach as opposed to the expert. Because the students often chose instruments that the teachers were not accustomed to playing, when asking for help students were able to observe the teachers as learners too.

Rather than being the one who is in control and the one who knows, the requirement to listen to a song, perhaps one that was not previously known to the teacher, and find its pitches on an unfamiliar instrument while pupils watched, placed the teacher in a role which was much more similar to that of a learner. We considered that pupils benefited by observing how teachers went about finding and matching pitches, and it was one of the most fruitful ways in which teachers acted as musical models. (Green, 2008. p. 51)

However, by the project's end most of them were surprised by the level of accomplishment by the students. While some of the musical attributes were a bit rough around the edges, and lacking in accurate musical terminology, on the whole the teachers were struck by the *increased level of musicality* demonstrated by the students. Moreover, the students were way more engaged in the process

and carrying out thoughtful and critical discussions regarding the music in ways that were superior to what the teachers were accustomed to. While the students' musical terminology may have been more ad-hoc than specific, the point is that the students were engaged because of the personal relevance of the experience.

Green's work is a significant step towards a new musical future in which students are engaged and taking ownership of the music. Still how can we apply this approach to learning situations in which students may not be motivated to learn new and unfamiliar music? Green argues that the informal learning process can serve as a springboard from which students can then begin to access new realms of music.

There are significant parallels between project based learning and informal music education. Like PBL, informal learning calls upon the student to seek out what motivates him or her. Through the coaching of a teacher, the student can then begin to access deeper levels of content and thinking skills. As Ray McNulty of the International Center for Education said, "You can't have rigor without relevance."

Green's work raises an essential question regarding the institutionalization of music education. The radical nature of her work has allowed for the safety net of formalized, institutional space without the confines of rule where there is an exact right and wrong. Like the use of essential questions and critical thought in PBL, there may be more than one right answer. As Elliot Eisner points out,

The arts teach students to act and to judge in the absence of rule, to rely on feel, to pay attention to nuance, to act and appraise the consequences of one's choices and to revise and then to make other choices. Getting these relationships right requires what Nelson Goodman calls 'rightness of fit' [Goodman, 1978]. Artists and all who work with the composition of qualities try to achieve a 'rightness of fit.' (Eisner, 2004, p. 5)

However, does the formal teaching method of the arts truly provide for this? In the informal learning model, students are more apt to discover their own artistic voice because they are given the opportunity to do so. Whereas the traditionally institutionalized formal learning process is more apt to instruct the student what is right and not-so-right.

While the teaching of popular music is still a rather new phenomena in schools, jazz education has been increasingly formalized over the last 30 - 40 years. Accordingly, this provides us with a unique perspective on the benefits of

informal learning as compared to formal learning. Originally, the transmission of jazz learning was informally conducted by relationships between experts and novices. Much like the learning of popular music documented by Green, young and eager musicians, captivated by the music would listen to records with their friends trying to figure out riffs and melodies. They would attend concerts and immerse themselves in the music in hopes of joining the ranks of the elite jazz musicians. All of this was conducted outside of the formal education system. Fast forward 90 years and jazz education has been formalized to the extent that we have music teachers who aren't jazz musicians teaching "jazz" in the schools. Conversely, organizations such as Lincoln Center's Essentially Ellington program and Jamey Aebersold's jazz practice series have gone to great lengths to share the richness of jazz's history and practice with American students. As a result students have greater access to learning the music than ever before and the last 25 years has borne witness to a generation of near-expert high school improvisers and players. Much has been discussed about the successes of these programs and just as much has been discussed about the dilution of jazz due to the vast access young people have to the music. Ironically the broad access to jazz through formalized pedagogy and computerized practice techniques has led to a generation of excellent musicians who have been educated to perform a relatively narrow expression of jazz that is biased to specific historical periods and approaches. Moreover, in the average school jazz program this is made even worse by teachers choosing jazz repertoire that only exists within the school music paradigm and has minimal association with the

richness of the jazz continuum. Thus begging the question, “Where are the Coltranes, Monks, Minguses and Holidays?” Has the formalization of jazz education led to the homogenization of itself?

Green’s work of informal learning in a formal environment offers up a promising alternative for the future of creativity in music education. However, is there still a better and more nuanced way to achieve the excitement through relevance and creative potential inherent to the informal learning process without sacrificing the opportunity for concrete skills development and access to unfamiliar music and content? To what extent can the benefits of informal learning be incorporated into an interdisciplinary model without raising even more concerns from music educators that their discipline is being diluted? How can applied music at the secondary level be meaningfully incorporated into the project based learning environment so that deep understanding and rigor are guaranteed?

## **NEXT STEPS: CURRICULAR DESIGN FOR THE INFUSION OF APPLIED PERFORMING ARTS TO PROJECT BASED LEARNING**

As we have identified above there is a notable absence of applied music performance in project based learning schools. This chapter presents a means in which to develop project based learning curriculum and assessment that infuses applied music performance in a rigorous and relevant way for the needs of 21<sup>st</sup> century learners. Two curriculum maps are offered as examples - *Leyla and The Lamp: An Arabic Music Expedition* for secondary instrumental and vocal students and *The Glocal Citizen Project*, a middle grades Global Studies and Performing Arts learning expedition.

The following table serves as a template that synthesizes and cross-compares two curriculum mapping and assessment approaches which informed the development of the above mentioned curriculum maps:

- *Understanding by Design* (Wiggins and McTighe 2006).
- *Rigor/Relevance Framework* (The International Center for Leadership in Education 1991).

with three relatively contemporary approaches to music pedagogy:

- *The Facets Model* (1997, Barrett, McCoy and Veblen)
- *The Creative Music Strategy* (2011, Robinson, Bell and Pogonowski)

•*Democratic/Cooperative/Informal Learning in Music Education*

(Green 2008, Allsup 2003).

Authentic Learning, Rigor, Creativity, Democratic Learning Through Arts Infused Project Based Learning						
APPROACH	FACETS MODEL:			CREATIVE MUSIC STRATEGY	INFORMAL LEARNING/ COOPERATIVE LEARNING/ DEMOCRATIC LEARNING	
UbD: Facets of Understanding	Explanation Interpretation Perspective Empathy Application			Perspective Application Interpretation Empathy Self Knowledge Explanation	Explanation Interpretation Application Perspective Empathy Self Knowledge	
ACTIVITY PROCESS	content	properties	expression	<b>performance application*</b>	Interpreting a theme, event, concept, issue into sound.  improvisation Composition Synesthesia	Integration of student initiated and facilitated musical discovery into the applied music curriculum.  Using critical thinking and class dialogue to develop arrangements of the repertoire. Supporting student directed input to guide the shape and arrangement of repertoire.
	Who created it? When and where was it created? Why and for whom was it created?	What techniques did its creator use to help us understand what is being expressed? What does it sound or look like? What kind of structure or form does it have?	What is its subject? What is being expressed	Transferring facets understanding to meaningful performance. <i>Evidence:</i> including the composition in context of a greater whole: a performance suite, album, radio show,		
RIGOR	Rigor/Relevance Framework: A & C : Acquisition and Application (w/ a little bit of B and D (5:3)			D: Adaptation Creativity: <i>not so much in this one</i> Collaboration : <i>in the perf application</i> Communication: <i>in the perf application</i>	Rigor/Relevance Framework: C & D: Assimilation & Adaption A & B: skills are acquired through the exploration process.	Rigor/Relevance Framework: A,B,C,D Acquisition and Application, Assimilation and Adaptation (e.g. students learning and performing their original compositions).
RELEVANCE	INFORMAL LEARNING: MOTIVATION THROUGH RELEVANCE <i>students seek out music that is meaningful to them</i>			applying this learning to a real world situation	INFORMAL LEARNING: INSPIRATION THROUGH RELEVANCE  The CMS needs a relevance tweak - so that it moves to authentic and not just this is what i am studying in class.	Democratic learning that empowers students to seek out their own truth and creativity. Allsup: "Given a chance - given space - band students may break out of roles that are defined for them, and create opportunities to do more than just 'tap away'" p 34.  Pogonowski 1979 via Allsup "The study must be filled with the action of discovery."

Authentic Learning, Rigor, Creativity, Democratic Learning Through Arts Infused Project Based Learning				
APPROACH	FACETS MODEL:		CREATIVE MUSIC STRATEGY	INFORMAL LEARNING/ COOPERATIVE LEARNING/ DEMOCRATIC LEARNING
UbD: Facets of Understanding	Explanation Interpretation Perspective Empathy Application		Perspective Application Interpretation Empathy Self Knowledge Explanation	Explanation Interpretation Application Perspective Empathy Self Knowledge
4 CS	Critical Thinking: <i>making connections across disciplines</i> Communication - <i>if oral and written communication is accessed by student in the reflective/assessment process.</i>		Collaboration Communication Critical Thinking Creativity	Collaboration Relationships Relevance Critical Thinking Creativity Communication (oral, aural and musical) ... <i>via Allsup</i>

When the above template is superimposed with the Project Based Learning Approach, an entirely new paradigm for secondary applied music is possible. The next section briefly outlines the Understanding by Design approach and specifically draws connections between UbD's facets of understanding and how it relates to the Rigor/Relevance Framework. The comparisons use the study of Ornette Coleman's music as an example of the various manners in which students might express understanding of Coleman and his music.

## Understanding By Design (UbD) and Instrumental Music

At its core Wiggins and McTighe "Understanding By Design (2006) is a three part process:

- (1) Establishing the desired results for students that include identification of essential questions and enduring understandings.
- (2) Determining acceptable evidence of the students learning through a variety of assessment practices including Wiggins and McTighe's 6 Facets of Understanding (Explanation, Interpretation, Application, Perspective, Empathy and Self Knowledge).
- (3) Development and design of learning experiences and instruction.

At the start of their influential book the authors predict that readers:

"will be somewhat disturbed by how hard it is to specify the understandings and what they look like in assessment, and how easy it is to lose sight of goals related to understanding in the midst of planning, teaching and evaluating student work" (ibid. pg 9).

The authors also refer to the Understanding By Design process as *backward design*. Although it seems as if it would be relatively simple to establish understandings, it is actually a bit tricky. Despite the logic in establishing desired results and understanding first, and then the assessment necessary to determine acceptable evidence of learning, many teachers tend to plan around activities

and then think about how to assess the activity rather than the understanding .  
Thus this often leaves a gap for the "understanding" to slip through.

In the school music and band world this mistake would equate to picking out ensemble repertoire solely in terms of concert programming and perhaps skills sequencing without considering the goal of instilling deeper understanding about the music and its broader cultural, historical and social connections. Despite months of rehearsal, it is likely that students may not understand much more than when they started. Of course they can play the notes on the page with more accuracy and may be able to execute certain techniques with greater ease, but how much do they know about the compositional process of the composer or the music's context in the greater world? What kind of critical thinking and problem solving has truly occurred as a result of playing the concert repertoire? To what extent was the experience creative as opposed to expressive? To what extent did the student's involvement in the ensemble resemble a "real world" experience? Moreover, what does a student gain in understanding through the rehearsal and performance of a canon of music that exists solely within the 4 - 12 academic music world. In rehearsal, many ensemble teachers will most likely impart particular facts and pieces of information regarding the music they are practicing. They may mention who the composer<sup>7</sup> was and his or her significance on the history of music. The teacher

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<sup>7</sup> Or not if it is a "catalog composer" who writes mostly for school ensemble. As opposed to the work of artists whose influence stands the test of time (e.g. Ravel, Ellington, Mary Lou Williams, etc).

may even explain what era, region or genre the composition originates from and its general relevance to the history of music. But talk only goes so far towards a student's understanding. Meaningful understanding is only gained through specific processes in which students develop a relationship with the material and apply their learning in a meaningful way. Unfortunately, with a school ensemble that is expected to regularly perform for the community it is not always easy to find the necessary time to achieve these type of understandings. Indeed there are even prescribed pedagogical approaches to band that call for no more than 20 seconds of non-playing at a time (Manfredo, 2007, pg 44). Granted this is meant to apply to rehearsal, but in traditional settings band is more or less a rehearsal for a concert, as opposed to a rigorous development of the *whole* musician.

A critical component to the UbD approach is the development of assessment. As previously mentioned, relevance begins with relationships and rigor begins with relevance. However, that is only the launching point for the goal towards rigor. The second stage of the UbD process is about establishing criteria for *evidence of learning*. This is essentially what assessment is all about. When a teacher develops thoughtful assessment, it is about establishing clear expectations of what high quality work should look like. The ways in which students demonstrate evidence of learning should be multi-faceted allowing for more nuanced expression of understanding. This is precisely why Wiggins and McTighe have established the six facets of understanding. Again, these include:

**Explanation:** *An in-depth and well reasoned description of facts, information, data, etc. The learning that would lead to this type of understanding would fall under the A category of the R/R Framework. Ornette Coleman came to New York City from Texas and played a plastic saxophone. His music was considered controversial.*

**Interpretation:** *When a student's understanding occurs in the form of interpretation, they are essentially translating the information or topic into story. The story itself may be multi-dimensional involving narrative, imagery, sound and convey a personal connection that reveals deeper understanding of the human experience. This understanding would most likely fall into quadrants B or D (Adaptation) of the R/R Framework. In this instance a student might write a narrative for a radio show describing the musical evolution that paralleled Ornette Coleman's migration from Texas to NYC.*

**Application:** *Application would fall squarely into quadrant B of the R/R Framework, aptly labeled "Application" In this context, students apply their understanding across disciplines in both predictable and unpredictable situations. Wiggins and McTighe borrow a quote from Howard Gardner (1991):*

The test of understanding involves neither repetition of information learned nor performance of practices mastered. rather it involves the appropriate application to concepts and principles to questions

or problems that are newly posed. (Wiggins, McTigheUbd p 94, p. 117)

An example of application and interpretation might be *a performance of an arrangement of Ornette Coleman's music accompanied by imagery and original poetic narration that expresses Coleman's music and place in music history.*

**Perspective:** *This kind of big picture thinking demonstrates the ability to grasp multiple view points through a critical lens. With perspective, students can express their understanding through the use of a variety of view points. For example, rather than stating a fact such as Ornette Coleman was a pioneer of the free jazz movement, a student might explain the varieties of perspective as it pertains to Coleman - specifically illuminating the nuances of Benny Goodman's perspective (displeasure) as opposed to Leonard Bernstein's (admiration and deep respect) and then further examining Coleman's work by considering a third perspective such as Miles Davis who dismissed Coleman and then later recanted. This kind of big picture thinking demonstrates the ability to grasp multiple view points through a critical lens. This could fall into quadrant C.*

**Empathy:** *Similarly, empathy involves the process of understanding another's perspective but involves more of the human factor in which the student is open to reflecting on what they might learn from what they don't understand. "What do they see that I don't see" (ibid. p. 98). In this Quadrant C experience the student*

*might accept that Coleman’s music does not immediately “jump out at them” but exercises empathy as a means to seeking out Coleman’s intent and importance in jazz history.*

**Self Knowledge:** *With self-knowledge, the student reflects on their own learning process and personal habits of mind to help him or her transcend limitations, misunderstanding or prejudice, etc. Falling into quadrant D, the student recognizes that perhaps the fact that they don’t “get” Ornette’s music means that they have more to learn. Or perhaps the student is interested Ornette’s music and wants to model her improvisation after his approach, but recognizes the needs to shed traditional notions of technique, harmony and aesthetics.*

Facets of Understanding	R/R Framework	Bloom’s Taxonomy	Context
Explanation	Quadrant A: Acquisition	Knowledge, Awareness, Comprehension, Application	Knowledge and application in one discipline
Interpretation	Quadrants B: Application Quadrants D: Adaptation	knowledge, awareness, comprehension, application, analysis, synthesis, evaluation	Application across disciplines, apply to real world and/or unpredictable situations
Application	Quadrants B: Application	awareness, comprehension, application,	Application across disciplines, apply to real world and/or unpredictable situations

Facets of Understanding	R/R Framework	Bloom's Taxonomy	Context
Perspective	Quadrant C: Assimilation	application, analysis, synthesis, evaluation	Knowledge and application in one discipline
Empathy	Quadrant C: Assimilation	application, analysis, synthesis, evaluation	Knowledge and application in one discipline
Self Knowledge	Quadrant D: Adaptation	application, analysis, synthesis, evaluation	Application across disciplines, apply to real world and/or unpredictable situations

The most successful Project Based Learning happens in schools that have transformed their learning culture and practice to best support the curriculum and learning. With this approach comes a “less is more” stance. Meaning that more learning can occur when less content is being covered. When this happens, the curriculum guides the schedule and teachers are given the necessary time to plan well and students are given ample time to conduct in-depth work both individually and in groups. Rather than being mired down by memorizing content, students can instead participate in a focused study of an essential question or theme. This is when students might be able to engage in the higher-order thinking skills that fall into the C and D categories of the Rigor/Relevance framework. It is important to note, that despite Bloom's a hierarchy of

knowledge, this does not preclude the necessity of A and B level content in learning.

When the UbD and R/R concepts are utilized in conjunction with the Facets Model and Creative Music Strategy in a Project Based Learning setting a new model of teaching and learning applied music in the secondary school begins to emerge. *Leyla and The Lamp* and *The Glocal Citizen Project* are two example of this new model. Please refer to Appendix A for detailed curriculum maps for both of these learning expeditions.

## CONCLUSION

Over the past 6 months and throughout the writing of this thesis, many of the ideas presented here began to take shape in our classrooms at Cabot School. Much of the work presented in these pages has been influenced by the realities of the day to day teaching and learning experience. Similarly, much of my research for this thesis has had a considerable impact on both my day to day teaching and my colleagues teaching as we transform into a 21<sup>st</sup> century project based learning school.

Still, we have a long way to go. For several months my colleagues and I have been working towards the aspirations of PBL within the confines of a traditional bell schedule that dictates (for the most part) a non-interdisciplinary approach. While we have had some major success, it has come at a cost. In a K-12 school arts teachers such as myself are still expected to cover music across the grades, put on a Spring Concert, as well as create performance-based PBL into all that I do with all grades. Essentially, this PBL within a traditional school model expects the teacher to do twice as much. The point of all of this is to illustrate the need for a holistic transformation to our schools. To adopt a PBL approach to curriculum is simply not enough. A PBL school culture needs to be nurtured and a common vision amongst faculty and students must be shared. Schedules must be seen as fluid guidelines that allow students to work with their teams and teachers to get the learning/job done be it on campus or in the field.

A majority of the coursework or learning expeditions should be generated in a manner that positions a team of teachers as stakeholders all invested in reaching common goals. In this type of fluid and flexible scheduling the time is used most wisely. There will be days when certain projects require more time with one teacher than the others. But the following week that could change and when it does the students go where the work is. This works for the teachers because the team coordinates where the work is and have a shared investment in teaching understanding of the big thematic questions that span the learning expedition rather than competing for student time to cover discreet and isolated subject matter.

Without a fluid and flexible structure to support a PBL learning environment, both the teachers and students will constantly have one foot in each century.

Recently the Cabot 9<sup>th</sup> and 10<sup>th</sup> grade American Studies students produced a special event as an exhibition of their learning of the Harlem Renaissance. Because this year's schedule positioned band during 3<sup>rd</sup> period (right after the 1<sup>st</sup> and 2<sup>nd</sup> double American Studies blocks), the band students were able to gain the most from this learning expedition. They would come into band after having just researched, written and discussed the Harlem Renaissance. Thus, playing Billy Strayhorn's "Take The A Train." was that much more relevant to the students. But it doesn't stop there. Indeed this is just where it begins. In the two short months that spanned the length of the Harlem

expedition, the band students developed a passion for jazz. This passion was born from hearing the *stories* of how early jazz was born. They understood the musical path of the African diaspora through their own studies of performing West African music. They experienced the musical connections such as call and response, playful interaction, and polyrhythm that are shared between jazz and traditional West African music. They experienced *empathy* through the stories of the creators of early jazz; for the voices empowered by art and music despite the weight of oppression that shrouded African Americans in the 20's and 30's, With music as their transport, the students traveled from New Orleans to New York City with Louis Armstrong. They heard and learned the stories of Duke Ellington and Chick Webb. No longer were those just names at the top of their music, rather they were personalities and musical voices that spoke to the students' own need to rise up, be empowered and find meaning in life. What a better medium than art and music to do so.

The students experienced *symphony*: the big picture and divergent strands of fact blended with one another to create meaning and wonder. Through the joyful noise of jazz students *played* and discovered a deeper sophistication to a playful life. And finally, because of this expedition, the students created a place for their jazz in the Harlem Renaissance exhibition of learning night. They *designed* where and how the music would fit into the evening. They worked *collaboratively* through *critical* and *creative* thinking to *communicate* their learning to one another and the audience. Because the students were given the time and space to discover on their own and through

collaborating with one another, they gradually learned how to see the big picture. The social act of teaming together and to have a voice in their learning brought *relevance* to their work. My students were excited by what they heard and how it expressed the times but also let them express themselves. It was this excitement that has encouraged them to dig deeper and to seek out more. They are creating their own *rigorous learning* through this path that is both personal and purposeful.

As we progress further into the 21<sup>st</sup> century, we will continue to see the project based learning approach become more widely accepted and integrated into our schools. As a teacher at a very small school, I know that performing arts infused learning is attainable. However, how does such a model as presented in this thesis mesh with a very large school music program whose success is predicated upon a 100 year old model based on large symphonies and concert bands whose repertoire self-propagates the same 100 year old model? Only time will tell.

## APPENDIX A: Curricular Examples of Performing Arts Infused Project Based Learning

### LEYLA & THE LAMP: An Expedition in Arabic Music

**Course Title: Leyla & The Lamp: An Arabic Music Expedition**      Grade Levels:  
9-12

Subject/Topic Areas: **Music**, Drama, Arabic Language, Visual Art, Language Arts,  
Literature, Social Studies

Designed By: Brian Boyes      Time Frame: One Semester

School: Cabot School

### **LEYLA & THE LAMP**

#### Explorations in Classical and Contemporary Arabic Music

##### **Overview**

As part of a semester-long interdisciplinary project on Middle Eastern history and culture, students will research several interpretations of a middle eastern folk tale, Leyla & The Lamp. Through critical

analysis and discussion, a composite tale will be generated in the form of either a script or screenplay making use of actual historical figures, events and mythological references.

Music students will develop a repertoire of both traditional and modern Arabic music through listening, performing and studying the broader principles of Arabic music theory. As a result of this process students will produce a musical underscore to the shadow puppet adaptation of Leyla and The Lamp. The underscore will include traditional Arabic music as well as original music, making use of both Arabic and western musical aesthetics and practices. The project concludes with a self-produced performance that will be taken “on the road” and performed in several venues

### **Unit design status:**

- Completed template pages - Stages 1, 2, and 3
- Completed rubrics
- Directions to students and teachers
- Materials and resources listed
- Suggested accommodations
- Suggested extensions
- Peer Reviewed
- Content reviewed
- Field Tested
- Validated
- Anchored

### **Leyla & The Lamp: Established Goals:**

#### **Content Standards:**

VT ARTS GE Music AAHS:4 Students show skill development when CREATING music by... Composing in several distinct styles using the elements of music for expressive effect.

VT Arts GE Music APHS:5 Playing a musical instrument with a more varied repertoire (e.g., various culture and styles) alone and with others and a degree of difficulty of level 3 - 5.

VT Arts GE Music APHS:6 AAHS:6

Students show understanding of music CONCEPTS and VOCABULARY by analyzing and comparing several compositions of a similar and contrasting genres or styles. Reading and notating music at the level of difficulty of 3 - 5

#### **Making Connections**

AAHS:16 Students make connections between/among the

arts and disciplines outside the arts by explaining how elements, artistic processes, and/or organizational principles are used in similar and distinctive ways (e.g., form, tone color, balance, unity and variety,

texture, harmony, etc.). Creating art work to show understandings of a discipline (e.g., show understanding of Arabic music theory through composition and improvisation).

AAHS:18 Students show understanding of how the arts shape and reflect various cultures and times by... Applying techniques from a culture to create or perform a work of art. Creating a piece based on an established genre or style. Identifying universal themes and socio-political issues in a variety of art forms in different cultural contexts. Identifying the foundation or roots of a specific art form related to time and culture.

**Course or program objectives: (from Cabot School Performing Arts mission statement)**

Stimulate cognitive growth and divergent thought through a multicultural and interdisciplinary approach to the performing arts.

Foster social and emotional elements inherent to the music making process such as the development and understanding of self-knowledge, discipline, confidence, and a conception of self within the musical ensemble.

**Learning Outcomes:**

Students will have acquired an informed appreciation and balanced perspective of Middle Eastern arts, culture and history. Students will be able to make connections, and integrate elements of Arabic music into their own musicianship which as a result will have deepened and matured.

**Stage 1 - Identify Desired Results**

**Leyla & The Lamp:**

**What Essential Questions will be considered?**

What are the implications of Westerners performing traditional music of other cultures?

Does learning a diverse range of music (traditional --> transcultural) position and/or empower us as global citizens? (Schippers 2010).

How might one adapt her learning expectations and approach when studying another culture's music? (Solis 2004, Schippers 2010).

To what extent is music a universal language? ( Fritz et al 2009, Schipper 2010.)

Compare and Contrast the Vermont Music GEs with music making practices from the Middle East.

How do musical “styles” (culture, genre, etc) influence and inform each other?

Music is embedded in many aspects of human life. How does this vary among cultures?

What criteria do we use to evaluate a performance? How may this vary among cultures and styles?

### **Leyla & The Lamp**

#### **What understandings are desired?**

Musicking (Small 1998) varies greatly throughout the world as well within communities, cultures and nations. Our conceptions of musical aesthetics and values require a filter of cultural relativity in order to accurately understand and appreciate the world's diverse musical output.

A bi-musical (and/or multi-musical) approach to music requires the student to simultaneously develop an understanding of their first language of music (i.e. Western classical, jazz, rock, etc) as well as a fluency in a second musical language.

In the case of this unit, this means developing the ability to perform in both styles as well as recognize and articulate similarities and differences between Western and Arabic music.

A holistic approach to and understanding of music supports a greater cultural and social perspective as well as critical thinking skills. By its very nature, working in the context of other cultures requires students to develop critical thinking skills, “students can not acquire a global perspective without

developing critical thinking skills . . . and can not be considered critical thinkers without a global perspective.” (Dorman 1992)

**What key knowledge and skills will students acquire as a result of this unit?**

- Key terms: maqam (hijaz, rast, bayati, nihawand), modulation taksim, jins/ajnas, ,iqa’at/wazn (rhythmic patterns or cycles within a fixed temporal structure).
- Familiarity with the various Arabic instruments, musical forms
- To develop a basic understanding and knowledge of traditional Arabic repertoire.
- An experiential appreciation of traditional and contemporary Arabic music.
- The structure and basic usage of the hijaz maqam, ajnas and modulation.
- A basic to intermediate technique on tar and/or dumbek or riq.
- The ability to engage in a World Music 2.0 experience (mix, mashup, curate, arrange and/or compose music that reflects and/or supports dramatic narrative.
- Students will be able to perform traditional Arabic music using a basic understanding of the rules and practices associated with traditional Arabic music (form, maqam, aq’at, ornamentations, etc)
- Students will be able to perform to the best of their abilities with a bi-musical approach, including the ability to merge divergent approaches to improvisation (jazz, free, creative, structures of maqam and jins).

**Stage 2 -Determine Acceptable Evidence**

**Leyla & The Lamp**

**What evidence will show that students understand?**

**PERFORMANCE TASKS:**

Over the course of the year, students will be engaged in studying and playing traditional and modern Arabic music. From this repertoire, students will select compositions that they deem most appropriate as musical support to their class adaptation of Leyla & The Lamp. They will also compose original music to meet the musical needs of Leyla & The Lamp. These choices will reflect an intercultural approach in that the original compositions will demonstrate an understanding of the broader theoretical principles of Arabic music while also integrating a contemporary western influence.

OTHER EVIDENCE: Formative and Summative Assessment

Key Terminology

Formative:

Students will work towards appropriate use and reference of Arabic musical terms in their listening journals.

Summative:

Quiz - Arabic musical terminology quiz

Familiarity with the various Arabic instruments, musical forms

Formative:

- Skill Check - Using either a keynote presentation and google form or iPad-based spreadsheet ask students to identify instruments by name and their respective musicological classifications
- Skill Check - Students will demonstrate proper use of these terms in their listening journals.

Summative:

- Quiz - Identification of the various Arabic instruments
- Quiz - Identification of several Arabic musical forms through a listening quiz.
- Development of either a Keynote presentation, or webpage that demonstrates and/or describes a variety of middle eastern instruments and musical forms.

To develop a basic understanding and knowledge of traditional Arabic repertoire.

Formative:

In their listening journals, students will discuss their honest reactions and reflections to the music assigned. Students are encouraged to make connections between different musicians, and

recordings within the genre of Arabic music. Students will utilize the concepts and terminology specific to Arabic music.

Students will be tasked with researching and seeking out additional music to share with the class.

An experiential appreciation of traditional and contemporary Arabic music.

Formative:

In-class performances demonstrating basic use and understanding of the hijaz maqam and associated techniques.

Summative:

Transcriptions of simple(ish) melodies that exemplify correct use of hijaz.

In-concert performance demonstrating basic use and understanding of the hijaz maqam.

A basic to intermediate technique on tar and/or dumbek or riq.

Summative:

In-class lessons on Arabic percussion in which students' ongoing practice will demonstrate their progress and improvement.

Performance at a local open-mic cabaret.

Formative:

Students film and record several iqa'at as percussion duos, trios or quartets to be posted on the CSPAC website.

Formative:

Students will create "mix tape-radio shows with commentary that will be broadcast on the school radio station. Commentary will consist of informed-informal discussion of the music and why they chose the music, track sequencing as well as overall themes, mood etc. Students will respond to a list of criteria to guide them in their discussions. (Students will use approaches similar to DJ Rupture's Mudd Up! (WFMU show) as models.

Summative:

Using Reason or Ableton Live students will practice editing, mixing and mashing towards the development of a World 2.0 remix or mashup that utilizes the Arabic music theory being studied.

Emphasis will be placed on a respectful use of bi-musicality that resembles exemplary contemporary

work. Students will be required to write a critical paper defending their work. Final audio products will be posted on CSPAC website.

**“Big Idea” Understandings:**

The overarching understandings will be assessed through student radio show broadcasts, blog entries, listening journals, class discussions as well as in-class and concert performances.

Students will be asked to compose a narrative self-assessment of their ongoing work (instrumental technique, radio show broadcasts, blog entries, performances) using a variety of criteria and guided discussion points.

Student Self-Assessment and Reflection

Students will be asked to compose a narrative self-assessment of their ongoing work (instrumental technique, radio show broadcasts, blog entries, performances) using a variety of criteria and guided discussion points.

**Stage 3 -Plan Learning Experiences**

W.H.E.R.E.T.O

Where & Why (ensure that students know where we're going and why)

Hook & Hold (student attention)

Equip (provide students with what they need to succeed)

Rethink, Reflect & Revise (provide regular opportunities)

Evaluate (opportunities for students to self assess)

Tailored (to meet divergent needs and learning styles)  
 Organized (to ensure deep understanding and avoid superficial coverage)  
 What sequence of teaching and learning experiences will equip students to engage with, develop, and demonstrate the desired understandings?

1. Students enrolled in the class have done so specifically to participate in the interdisciplinary approach to studying Middle Eastern arts, culture and history. (W)
2. First introduction to the technology tools used in class, course Ning, listening journal/blogs, Arabic music web resources(Equip) (R) (T)
3. Introduce Essential Question: What are the implications of Westerners performing traditional music of other cultures? Presentation on Musical Appropriation, Use and Misuse. (W) (Equip)
4. Homework: Week One & Two Listening Assignment (Equip) (R) (T)
5. In preparation for Boston/Montreal/NYC trip: Middle Eastern Musical Instruments Overview and the very general “What To Listen For in Middle Eastern Music” presentation. (Equip) (R)
6. Semester starts with a trip to either Boston, NYC or Montreal to attend a concert of Arabic music, and dine on Middle Eastern food and participate in a beginning Arabic language workshop.(H)
7. Upon their return to Vermont, students will participate in a a 2 day residency with an Arabic percussion specialist (Todd Roach) *or* Participate in a 2 day Arabic percussion workshop in Boston with a culture bearer. (H) (Equip)
8. The rehearsal process begins (ongoing). (Equip) (*explore balance of notated vs. aural, formal vs. informal*)
9. First introduction to *hijaz maqam* and its use of *ajnas*. Refer to Maqam Unit Plan for details. (Equip)
10. Continue rehearsal process and working with various *maqam*.
11. **The Arabic Music Project:** A student published website that contains interactive information on Arabic Music (instruments, types of music, history, musicians, mp3s etc) The project should uniquely reflect the personal learning experience of the students. The website will also include an archive of student produced mix-tape radio shows/podcasts It should be designed in such a way that subsequent classes can build upon it and

develop it as a resources for the greater world. Presentation should be creative, well designed and relevant.

- a. STAGE 1: Homework: students work in groups of 2 - 3 on Middle Eastern Instruments assignment (glogster, Keynote, website, etc). (R)
  - b. STAGE 2: Each student (or small groups of students) develops a web resource for either a particular region, genre or era (Classical Persian, Turkish and Arabic. Contemporary music of the Near East hiphop, Arabic jazz). The intent is to approach the music non-linearly. A complete historical picture of Arabic music is beyond the scope of this unit. By approaching the music non-linearly, it is hoped that at least a more diverse perspective is developed. Furthermore, misconceptions and stereotypical notions of Arabic music may be avoided.
12. End of Week 2 self-reflection on blog using teacher generated criteria (Evaluate)
  13. Week Three & Four Listening Assignment (Equip) (R) (T)
  14. Discuss Essential Question: Does learning a diverse range of music (traditional --> transcultural) position and/or empower us as global citizens? See Schippers 2010.
  15. Homework: Read the introduction from Schippers' *Facing The Music: Shaping Music From a Global Perspective* . Students may respond via blog entry.
  16. Introduce Mudd Up! DJ Rupture's WFMU radio show in preparation for their own shows.

<b><i>A 15 Day Sampling of the Arabic Music Expedition</i></b>			
Focus of Session	Activity & Assignment	Resources and Materials	Homework
WEEK 1			

<b>A 15 Day Sampling of the Arabic Music Expedition</b>			
Focus of Session	Activity & Assignment	Resources and Materials	Homework
<p>DAY 1</p> <p>EQ: What are the implications of Westerners performing traditional music of other cultures?</p> <p>VT ARTS GE: AAHS:18</p>	<p>Opener: Brief introduction to course tech tools (Ning:, blogs, listening journals, web resources)</p> <p>Activity: (7 minutes): Answer the EQ in your journal; what do you think? (pre-assessment)</p> <p>Presentation on Musical Appropriation: Use and Misuse</p>	<p>Keynote, Projector, Audio, Student journals.</p>	<p>In your Ning blog, respond to today's EQ and presentation. Reflect upon your initial journal entry. Has it changed? Why or why not?</p>
<p>DAY 2</p> <p>Musical Relativity: Middle Eastern Instruments and Organology</p>	<p>Presentation (brief) on the Hornbostel-Sachs system.</p> <p>Do Now In groups of 2 or 3, locate 5 different instruments of middle eastern origin or used in middle eastern music. Determine its classification and add the following to the appropriate section of a group generated Google Docs Presentation: image name(s)</p> <p>Student Presentations of findings.</p>	<p>Keynote, Projector, Computers, Internet access.</p>	

<b>A 15 Day Sampling of the Arabic Music Expedition</b>			
Focus of Session	Activity & Assignment	Resources and Materials	Homework
<p>DAY 3 EQ: What criteria do we use to evaluate a performance? How may this vary among cultures and styles?</p>	<p>Do Now Listening to “Kurdili Hijazkur Longa” reflect and make observations about the music in your journals. What do you hear? What seems familiar, what seems different? What images come to your mind while listening? Answer honestly. There is no right or wrong answer, but please attempt to be specific with your observations (i.e. as opposed to “It’s good” or “It’s weird, I don’t like it.” Instead: “I think it is different because . . . .”</p> <p>What to listen for in Arabic Music. (very general overview)</p>	<p>Keynote, Projector, Computers, Internet access. Student journals. Student iPads w/ Keynote, “What to listen for in Arabic Music. (very general overview)” pushed on to iPads or laptops.</p>	<p>Homework: Listen again to “Kurdili Hijazkur Longa” Review your initial comments and observations. Now take into consideration what you learned today about Middle Eastern Music and note any new observations. Reflect on any changes in your impression. Reference by name as many instruments as you can identify. If you are unsure of the name of the instrument, describe its sound and its role within the music (to the best of your ability).</p>

<b>A 15 Day Sampling of the Arabic Music Expedition</b>			
Focus of Session	Activity & Assignment	Resources and Materials	Homework
<p>DAY 4 &amp; 5</p> <p>EQs:</p> <p>What are the implications of Westerners performing traditional music of other cultures?</p> <p>What criteria do we use to evaluate a performance?</p> <p>How may this vary among cultures and styles?</p>	<p>Montreal/NYC/ Boston Trip</p> <p>Trip to one of the above cities to attend a concert of Arabic music, and dine on Middle Eastern food and participate in a beginning Arabic language workshop.</p> <p>Students will maintain a journal that includes photos, and/or video/ audio. The journal will be posted to their blog page on the course Ning. A list of thinking criteria will be distributed to students to help shape their blog posts.</p>	<p>Housing, food, transportation. Money</p> <p>Flip Cam or iPod w/ camera.</p>	<p>READING: (selections from Performing Ethnomusicology)</p> <p>Visit and Read a selection of blogs (posted on course Ning). Absorb and notice the crafting of posts so that you can model their style into your blog posts. Notice the balance of critical writing in an informal/journal like context. The use of hyperlinks and multi media to support work.</p> <p>Trip Journal w/ written and/or spoken commentary, photos, audio and or video.</p>

<b>A 15 Day Sampling of the Arabic Music Expedition</b>			
Focus of Session	Activity & Assignment	Resources and Materials	Homework
<p>DAY 6 &amp; 7 Intensive introduction seminar to hone technique and develop understanding of aq'at, Arabic approaches to rhythm in music.</p> <p>EQ: What are the implications of Westerners performing traditional music of other cultures?</p> <p>What criteria do we use to evaluate a performance? How may this vary among cultures and styles?</p>	<p>2 Day Arabic percussion residency and culminating performance- presentation w/ Todd Roach (and his students) in Brattleboro. Opportunity to work with experienced student drumming ensemble. (or in city with culture bearer).</p> <p>Students will continue to maintain a journal and explore the tensions in the EQ. Students will respond to the reading and consider the connections between their experiences and the reading. Using a daily log to journal students are encouraged to explore how their perceptions may or may not be changing through this trip and the residency.</p>	<p>Instruments:Tars, Dumbeks, Riq, etc</p>	<p>HOMEWORK: Students will continue to maintain a journal and explore the tensions in the EQ. Students will respond to the reading and consider the connections between their experiences and the reading. Using a daily log to journal students are encouraged to explore how their perceptions may or may not be changing through this trip and the residency.</p>
WEEK 2			

<b>A 15 Day Sampling of the Arabic Music Expedition</b>			
Focus of Session	Activity & Assignment	Resources and Materials	Homework
<p>DAY 8-12: Rehearsal</p> <p>VT Arts GE Music APHS:5</p>	<p>Rehearsal Process Begins.</p> <p>Do Now: Distribute music.</p> <p>Read through <a href="#">Kurdili Hijazkur Longa</a></p> <p>Presentation: <a href="#">A very basic Introduction to maqam</a></p>	<p>Sheet Music for</p> <ol style="list-style-type: none"> <li>1. Sallassana Mendilini</li> <li>2. Maqam Rast</li> <li>3. Kurdili Hijazkur Longa</li> <li>4. Sama'i Bayati</li> <li>5. Nahawand</li> </ol> <p>Smart Music accounts for all students. All sheet music and mp3s uploaded and assigned to each student.</p> <p>Listening Journal Playlist 1 posted w/ relevant artist and musical information (one paragraph).</p> <p>Sami Abu Shumays Maqam Podcast Series.</p> <p><a href="http://www.maqamworld.com">www.maqamworld.com</a></p>	<p>Homework: 20 minutes on Smart Music practicing your parts.</p> <p>Using Sami's Maqam Rast Podcast and <a href="http://maqamworld.com">maqamworld.com</a>, use your voice to imitate Sami's playing in rast After singing through the</p> <p>Practice Log: Jot down several observations regarding your practice experience. (what was challenging, "lightbulbs", etc)</p> <p>Listening Journal Playlist 1: Start listening to this weeks playlist. Begin to develop familiarity w/ the artists names, regions and/or countries of origin, style similarities and difference</p>

<b>A 15 Day Sampling of the Arabic Music Expedition</b>			
Focus of Session	Activity & Assignment	Resources and Materials	Homework
<p>DAY 13 -17: Rehearsal and Formative Assessment: Percussion, Rast pitches.</p>	<p>Group Percussion (day 9 only) Review learning from percussion residency. Use as opportunity to assess what students remember.</p> <p>Rehearsal: Read through Sallasana and Maqam Rast piece</p> <p>Formative Assessment: In groupings of 3, play the notes of the rast maqam.</p> <p>(1)Group singing on Rast. (2) Use our instruments to imitate.</p>	<p>Teacher checks practice logs and confirms w/ students (to drive home that this will be checked regularly).</p>	<p>Homework: Study 3_____ for tomorrow's rehearsal.</p> <p>Continue Listening Journals.</p> <p>DAY 9 and 10: Using maqamworld.com (1)listen to short clips of rast examples. (2)pick one example to learn. (3)using your instrument begin to notate the example so that others can play it as well.</p>
<p>DAY 11</p> <p>Pre -Assessment: the extent of students transcription skills.</p> <p>Formative: students ability to hear and begin to play phrases.</p>	<p>Group Percussion</p> <p>Rehearsal: Rehearse Sallasana, Rast.</p> <p>Student presentation of transcriptions. Break into groups of three, w/ ea. group learning each others transcriptions.</p>		

<b>A 15 Day Sampling of the Arabic Music Expedition</b>			
Focus of Session	Activity & Assignment	Resources and Materials	Homework
DAY 12	Presentation: Ajnas/ Jins	<a href="http://www.maqamworld.net">www.maqamworld.net</a>	Homework: Reading: _____  Listening Journals: Write summary and conclusion of this week's observations. Specifically discuss the use of ornamentation. Also be sure to utilize other understandings gained (rhythmic form, instruments, etc)
WEEK 3			
DAY 13	Group Percussion  Introduce The Arabic Music Project - STAGE 1: Interactive Instrument Resource  Use remaining time to begin work on project.	Keynote, Glogster, Internet, Ning and/or other web 2.0 resources.  Project criteria and guidelines.	Homework: Begin work on Stage 1 of the Arabic Music Project.
DAY 14	Rehearsal: Group rehearsal of Dagher material. and pieces 1, 2, 3.		Homework: Continue work on AMP Stage 1.

<b>A 15 Day Sampling of the Arabic Music Expedition</b>			
Focus of Session	Activity & Assignment	Resources and Materials	Homework
DAY 15	Sectionals Melodic work: focused on learning and developing understanding of ornamentations using Abdo Dagher's "The New Egyptian-Arabic Sufic Art Music"  Rhythm section: working on Dagher percussion charts.	Abdo Dagher's "The New Egyptian-Arabic Sufic Art Music" (Bb, Eb, F, C and Bass Clef)  Upload Dagher material to Smart Music.	Practicing Smart Music: Dagher material, and 1,2,3.

**Leyla & The Lamp: An Expedition in Arabic Music Bibliography:**

Danielson, V. (1997). *The voice of Egypt: Umm Kulthūm, Arabic song, and Egyptian society in the twentieth century*. Chicago: University of Chicago Press.

Fritz, T., Jentschke, S., Gosselin, N., Sammler, D., Peretz, I., Turner, R., Friederici, A.D., and Koelsch, S., (2009) . Universal Recognition of Three Basic Emotions in Music. *Current Biology*, volume 19 (7), 573-576.

Marcus, S. L. (2006). *Music in Egypt: experiencing music, expressing culture*. New York: Oxford University Press.

Rupture D.J.(2010). Mudd Up! Weekly Broadcast WFMU,  
archived at <http://www.negrophonic.com/>

Schippers, H. (2010). *Facing The Music: Shaping music education from a global perspective*. New York: Oxford University Press.

Solis, T. (2004). *Performing Ethnomusicology: Teaching and Representation in World Music Ensembles*. Berkeley and Los Angeles: University of California Press.

Umm Kulthum: *A voice like egypt*. Dir. Michael Goldman. 1996. Amazon. DVD-ROM.

**The Glocal Citizen Project:**

***A Middle Grades Global Studies and Performing Arts Learning Expedition.***

Grade Levels: 7 - 8

Subject/Topic Areas: Music, Digital Media Arts, Social Studies, Science, Language Arts

Designed By: [Brian Boyes](#) Time Frame: [Two Semesters](#)

School: Cabot School

### **Brief Summary of Project**

Drawing upon the inspiration of the [Playing For Change Music Series](#), [Matt Harding](#), and [PS 22](#) students will work towards the creation of a music video using Matisyahu's "One Day" as the musical basis. The video will feature both student and professional musicians throughout Vermont. During the year students will develop technical skills and proficiency in video and audio production.

The final video project will be posted online and will be used to generate funds to benefit a deserving cause chosen by the students.

"Musicking" (Small, 1998) varies greatly throughout the world as well within communities, cultures and nations. Our conceptions of musical aesthetics and values require a filter of cultural relativity in order to accurately understand and appreciate the world's diverse musical output.

Music has the potential to provide a portal or window into the social, political dimensions of a culture. To better understand the world's cultures, a diverse offering of "musicking" will be offered throughout the course, including West African Percussion, Indonesian Gamelan, Brazilian Samba Percussion, guitar, singing and listening.

## **Stage 1 - Identify Desired Results**

### **The Glocal Citizen Project**

**What understandings are desired?**

### Music

Through music, students will begin to develop a sense of cultural relativity. (aesthetic differences are appreciated differently amongst varying cultures). Music is a tangible portal to understanding these aesthetic differences.

### Digital Media Arts

Proficiency in audio and video production is a valuable skill that students will need as 21<sup>st</sup> century learners and workers. Students will understand the value in these skills and will be able to drawn upon them in future work.

Students will recognize the expressive and communication potential of digital media arts.

Student will recognize the potential of digital media arts as a means for social action and global citizenship.

## **The Glocal Citizen Project**

### **What Essential Questions will be considered?**

#### Music and Culture

What are the implications of Westerners performing traditional music of other cultures?

Does learning a diverse range of music (traditional --> transcultural) position and/or empower us as global citizens? See Schippers 2010.

How might one adapt his or her learning expectations and approach when studying another culture's music? (*Solis 2004, Schippers 2010*).

To what extent is music a universal language? ( Fritz et al 2009, Schipper 2010.)

How do musical “styles” (culture, genre, etc) influence and inform each other?

Music is embedded in many aspects of human life. How does this vary among cultures?

What criteria do we use to evaluate a performance? How may this vary among cultures and styles?

A well rounded 21<sup>st</sup> century citizen has a sense of themselves locally and globally. Define your impression of what a *glocal citizen* is.

### Digital Media Arts

Adapted from the Asia Society's Creative Voices

(<http://asiasociety.org/education-learning/resources-schools/professional-learning/creative-voices-digital-storytelling-glob>):

What can media tell you about other people and places? How can media contribute to misunderstandings of other people and places?

What role does media play in the construction of identity and difference?

How can media production start a conversation, challenge perceptions, and engage others in building understanding of the world?

### **The Glocal Citizen Project**

Established Goals:

**Content Standards:**

## **Vermont Grade Expectations: Arts**

### Making Connections

AAHS:16 Students make connections between/among the arts and disciplines outside the arts by explaining how elements, artistic processes, and/or organizational principles are used in similar and distinctive ways (e.g., form, tone color, balance, unity and variety, texture, harmony, etc.).

AAHS:18 Students show understanding of how the arts shape and reflect various cultures and times by... Applying techniques from a culture to create or perform a work of art. Creating a piece based on an established genre or style. Identifying universal themes and socio-political issues in a variety of art forms in different cultural contexts. Identifying the foundation or roots of a specific art form related to time and culture.

## **ISTE National Education in Technology Standards 2007**

### **1 . Creativity and Innovation**

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:

- a. apply existing knowledge to generate new ideas, products, or processes.
- b. create original works as a means of personal or group expression.
- c. use models and simulations to explore complex systems and issues.
- d. identify trends and forecast possibilities.

### **2. Communication and Collaboration**

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:

- a.interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.
- b. communicate information and ideas effectively to multiple audiences using a variety of media and formats.
- c. develop cultural understanding and global awareness by engaging with learners of other cultures.

d. contribute to project teams to produce original works or solve problems.

### **3. Research and Information Fluency**

Students apply digital tools to gather, evaluate, and use information. Students:

- a. plan strategies to guide inquiry.
- b. locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
- c. evaluate and select information sources and digital tools based on the appropriateness to specific tasks.
- d. process data and report results.

### **Critical Thinking, Problem Solving, and Decision Making**

Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. Students:

- a. identify and define authentic problems and significant questions for investigation.
- b. plan and manage activities to develop a solution or complete a project.
- c. collect and analyze data to identify solutions and/or make informed decisions.
- d. use multiple processes and diverse perspectives to explore alternative solutions.

### **5. Digital Citizenship**

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:

- a. advocate and practice safe, legal, and responsible use of information and technology.
- b. exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
- c. demonstrate personal responsibility for lifelong learning.
- d. exhibit leadership for digital citizenship.

### **6. Technology Operations and Concepts**

Students demonstrate a sound understanding of technology concepts, systems, and operations. Students:

- a. understand and use technology systems.
- b. select and use applications effectively and productively.
- c. troubleshoot systems and applications.
- d. transfer current knowledge to learning of new technologies.

**Course or program objectives:**

**From Cabot School Performing Arts mission statement)**

Stimulate cognitive growth and divergent thought through a multicultural and interdisciplinary approach to the performing arts.

Foster social and emotional elements inherent to the music making process such as the development and understanding of self-knowledge, discipline, confidence, and a conception of self within the musical ensemble.

**Learning Outcomes:**

**After this course students will be able to:**

Demonstrate an above grade level proficiency in video and audio production and will understand its potential for expression and communication in learning.

Demonstrate proficiency in team-work, using web 2.0 tools as a catalyst for more efficient teamwork and communication.

Recognize the value in their work and that their work has the potential to make a difference in the world and help others.

**The Glocal Citizen Project**

**What key knowledge and skills will students acquire as a result of this project?**

*(will vary based on team assignments)*

**Video Production:**

Camera technique, lighting techniques, storyboarding, video production protocols, effective framing and composition (rule of thirds, pan, zoom, tilt, types of shots), editing technique, file management of digital content, telling a story through documentary, location scouting,

Enhanced Video Production Curriculum

**Audio Production:**

Basic mechanics of a mixing board, mixing technique, types of mics, mic technique (placement and effect of placement, ), audio engineering protocols, signal flow, DAW control and editing, capturing optimal levels and sounds, “punching in”, multi-tracking, controlling headphone mixes, markers, timecode, understanding of how to record and mix different set ups (choir, orchestra, band, soloists, small choir, small instrumental ensembles, guitars, pianos, percussion, drums, guitar, etc), critical listening skills (what to listen for), mixing and editing technique, use of post production effects and elementary principles of mastering.

**21<sup>st</sup> Century Skills / Technology / Business**

Collaboration, critical thinking, creativity, communication. leadership skills, graphic design, web production, generating and using a spreadsheet, business skills, marketing, branding, working with budgets, networking, publicity and outreach.

**Global Music Performance**

Principles and aesthetics of West African percussion, Javanese gamelan and Brazilian *bateria* drumming, Middle Eastern percussion, singing, guitar.

**Stage 2 -Determine Acceptable Evidence**

**What evidence will show that students understand?**

**PERFORMANCE TASKS (and assessment potential):**

Global Citizen Productions Crew Hiring Process: students will apply for a position on the crew. They will write a cover letter outlining their skills, experience and interests. They will indicate their job preference. (Additionally using an [online form](#) they will select their top 3 job choices.) The final step includes a job interview (in a professional setting) with the course teachers. (Summative).

Students will write individual [Study Plans](#), and Final Evaluations that articulate their learning interests and goals for the project. (Formative and Summative)

An effective use of the GCP internal site for communication and collaboration will demonstrate a variety of 21<sup>st</sup> century skills. The quality of each team's project work and the quality of what they produce.

(Formative and Summative) Periodically evaluated (formally and informally) using an [assessment rubric/continuum](#) based upon the NETS standards). (An Addendum will be made to this rubric to speak to specific skill sets for each team)

The final product will be evaluated based upon a collectively generated rubric established by the students and teachers (drawing from several pre-established rubrics)

Team work will be evaluated based upon their field work using the [BIE Teamwork Rubric](#)

The successful creation and distribution of the final video product: "One Day". and each team's final evaluation and presentation of their work at the culminating exhibition.

Peer Critique Sessions: at the end of each music section (every 3 weeks - on the fourth week a movie is made and then is followed up by peer critique). This provides opportunity for practice on every end of (at least tech) production.

**KEY TERMINOLOGY**

Camera Angles, Framing & Composition Quiz: Students will be able to identify a variety of camera angles and techniques.

Use of terminology in their individual interviews, blog posts (which include field journal writing) study plans and evaluations.

Effective use of terminology while in the field (*Summative*) and during the practice runs leading up to the field work (*Formative*).

Field Trips attending workshops, visiting professional studios and offices on, job shadows,: use of terminology when framing questions and observations (*Formative*).

### **“BIG UNDERSTANDINGS” ESSENTIAL QUESTIONS**

*Unpacking One Day Activity*: Analyze the lyrics for the song “One Day.” How do the lyrics connect to global socio-political issues. (*Formative*) *Needs further work*

Write an additional verse for “One Day” based on the findings from *Unpacking One Day*. (Summative) Through the activity above, students should be prepared to transfer their understanding to creative writing that also addresses a particular social issue that they have identified in their Global Studies social studies work.

MEDIA LITERACY I: Dissect/Reverse Engineer PFC videos with guided questions for critical analysis (how edits, camera technique and framing effect and impact the viewer experience). (*Formative*)

MEDIA LITERACY II: Dissect/Reverse Engineer the two *We Are The World* videos (1985 USA for Africa, 2010 for Haiti ) Supports media literacy with guided questions for critical analysis (how edits, camera technique and framing effect and impact the viewer experience). (*Formative*)

MEDIA LITERACY: Student Blog Posts (using questions for reflection) in response to the above exercises (PFC and *We are the World*) (Summative)

Musical Cultures: Blog post reflections after each musical residency. Using guiding questions for reflection students will reflect on the unique characteristics of the particular musical experience. (*Formative*).

*“It’s A Pygmy Kind Of Thing”*: kid-friendly musical appropriation workshop. (*Formative - through classroom discussion. Summative - blog post journal entry*).

Musical Cultures Wrap Up: Students will synthesize their learning experience of various global musical traditions, comparing and contrasting the performance aesthetics, and practices. Through blog posts students will write brief critical reflections articulating their experience with the various musical traditions that they experienced. *Guiding questions and video resources to support writing (Summative).*

Playing For Change and Dancing Matt represent a positive transnational approach to globalization while PS 22 and Pomplamoose represent a translocal phenomena (a local act that has a global impact). In all of the above scenarios, we are witnessing positive acts of global citizenship through the arts, and perhaps in the instance of the translocal work - *glocal citizenship*. The Cabot Glocal Citizen Project, has the potential to be both translocal and transnational (depending on the participation outside of the US). In preparation for the final exhibition of learning students will generate a multimedia oral presentation demonstrating how the Cabot GCP is an act of glocal citizenship.

The Global Citizen Project: One Day Final Exhibition

Students present the final video product with brief presentations from each team (dynamic and interactive (fielding questions from audience) use of multimedia, exhibition of learning).

Students prepare a variety of international foods making use of the newly made bread oven. Final performance demonstrating a basic understanding of several different musical traditions (Javanese Gamelan, West African Drumming, Western Pop, Middle Eastern percussion, Brazilian Samba).

*(Summative).*

### **The Glocal Citizen Project**

#### Student Self-Assessment and Reflection Process

#### WEEKS 1-3

Students are given sufficient exposure to develop a general understanding of the process and positions within the Global Citizen Production Company.

Students conduct research on 5 GCPC jobs/positions.

#### WEEK 4

Students identify 3 positions that they would be interested in applying for.

Students write cover letter applying for their top choice.

Students are interviewed for the position.

Jobs are assigned.

Students engage in activity designed to enhance and support their understanding of their assigned position.

#### WEEK 5

Students write a [study plan](#) identifying their personal and academic goals as it relates to their position and the Global Citizen Project as a whole. This is also a time for reflection on their learning dispositions and social and emotional skills.

Students maintain personal blogs chronicling their learning process supported by guiding questions provided by teachers.

#### FINAL WEEK

Students write a final evaluation reflecting on their learning process, how they have grown personally and intellectually and how this learning may help them in the future. The final evaluation is an opportunity to synthesize their diverse learning experiences and to contemplate how their global outlook may have changed including their perceptions of what it means to be a global citizen. They will be asked to assess the effectiveness of our final video product. Did we get the job done? Will we make a difference?

### Stage 3 -Plan Learning Experiences

#### **W.H.E.R.E.T.O**

**Where & Why** (ensure that students know where we're going and why)

**Hook & Hold** (student attention)

**Equip** (provide students with what they need to succeed)

**Rethink, Reflect & Revise** (provide regular opportunities)

**Evaluate** (opportunities for students to self assess)

**Tailored** (to meet divergent needs and learning styles)

**Organized** (to ensure deep understanding and avoid superficial coverage)

	Focus of Session	Activity & Assignment	Resources and Materials	Home work	Differen tiation	W.H.E.R.E. T.O
	<b>WEEKS 1, 2, 3</b>					
	INTRO TO MEDIA PRODUCTION					
	THINKING FOR YOURSELF: MEDIA LITERACY I					
	COMMUNICATION THROUGH MUSIC: WEST AFRICAN DRUM AND DANCE					
	GLOCBAL CITIZENS: PLAYING FOR CHANGE, DANCING MATT, PS 22					
	<b>WEEK 4</b>					
	GCP HIRING WEEK					
	COMMUNICATION THROUGH MUSIC: WEST AFRICAN DRUM AND DANCE					

	Focus of Session	Activity & Assignment	Resources and Materials	Home work	Differen tiation	W.H.E.R.E. T.O
	<b>WEEK 5, 6, 7</b>					
	WRITING STUDY PLANS (week 5 only)					
	COMMUNICATION THROUGH MUSIC: MIDDLE EASTERN & NORTH AFRICAN PERCUSSION					
	AUDIO TEAM	<p><b>MINI PRODUCTION: NORTH AFRICA &amp; THE MIDDLE EAST</b>  <b>Weeks 5, 6, 7,8</b></p> <p>This time is focused on learning Middle Eastern and North African percussion which is tied in to the social studies and science curriculum (<i>through biomes, environmental science, contemporary issues, and history</i>)</p> <p>Students are charged with creating, producing and marketing (merch, business, outreach, publicity, etc) a music video featuring the Arabic / North African percussion.</p> <p>In the final week ( 8 ), the video is shot, recorded and edited. During this week the production office completes the publicity, outreach, and rolls out the branding and merchandise. Due to job responsibilities, technical Production teams (grips, lighting, etc) are not engaged in this final week 8 flurry. Once they've completed their evaluations, they engage in cooking from the current region of study (a cookbook complete with detailed recipes and high quality photographs will be produced and presented at the final exhibition, along with a buffet of the global cuisine.</p> <p>The Documentary Team, documents, catalogs and edits the entire process.</p>				
	VIDEO TEAM					
	PRODUCTION TEAM					
	TECHNICAL PRODUCTION					
	DOC. TEAM					
	MERCH TEAM					
	CREATIVE TEAM					
	<b>WEEK 8</b>					
	RECORDING, SHOOTING AND PROD. LAUNCH WEEK (Arabic Percussion)					
	SCREENING AND PEER FEEDBACK. Revision					
	QUARTERLY SELF EVALUATION WEEK					
	PRODUCTION TEAM	Develop and Launch Trailer Promotion				
	<b>WEEK 9, 10, 11</b>					

	Focus of Session	Activity & Assignment	Resources and Materials	Home work	Differen tiation	W.H.E.R.E. T.O
	COMMUNICATION THROUGH MUSIC: BRAZILIAN SAMBA					
	THINKING FOR YOURSELF: MEDIA LITERACY II					
	AUDIO TEAM	<p><b>MINI PRODUCTION: BRAZIL, SAMBA &amp; CARNIVAL Weeks 9,10,11,12</b></p> <p>This time is focused on learning Brazilian Samba percussion which is tied in to the social studies and science curriculum (<i>through biomes, environmental science, contemporary issues, and history</i>)</p> <p>Students are charged with creating, producing and marketing (merch, business, outreach, publicity, etc) a music video featuring the Brazilian Samba.</p> <p>In the final week ( 12 ), the video is shot, recorded and edited. During this week the production office completes the publicity, outreach, and rolls out the branding and merchandise. Due to job responsibilities, technical Production teams (grips, lighting, etc) are not engaged in this final week 12 flurry. Once they've completed their evaluations, they engage in cooking from the current region of study (a cookbook complete with detailed recipes and high quality photographs will be produced and presented at the final exhibition, along with a buffet of the global cuisine.</p> <p>The Documentary Team, documents, catalogs and edits the entire process.</p> <p>The Production Team maintains focus on the larger GCP project; outreach/publicity, etc.</p>				
	VIDEO TEAM					
	PRODUCTION TEAM					
	TECHNICAL PRODUCTION					
	DOC. TEAM					
	MERCH TEAM					
	CREATIVE TEAM					
	<b>WEEK 12</b>					
	RECORDING AND SHOOTING WEEK (Brazilian Samba)					
	SCREENING AND PEER FEEDBACK					
	QUARTERLY SELF-EVAL. WEEK					
	PRODUCTION TEAM					Maintain production planning, contact and outreach with GCP Schools, and outside world.
	<b>WEEK 13, 14, 15, 16, 17</b>					

	Focus of Session	Activity & Assignment	Resources and Materials	Home work	Differen tiation	W.H.E.R.E. T.O
	AUDIO TEAM	IN THE FIELD: WEEK 13 locations 1/2 WEEK 14 locations 3/4 edit locations 1/2 WEEK 15 locations 5/6 edit locations 3/4 WEEK 16 locations 7 edit locations 5/6 WEEK 17 B-Roll Shooting, Re-shoots and overdubs edit location 7				
	VIDEO TEAM					
	PRODUCTION TEAM					
	TECHNICAL PRODUCTION					
	DOC. TEAM					
	MERCH TEAM					
	CREATIVE TEAM					
	"IT'S A PYGMIE KIND OF THING": MUSICAL APPROPRIATION					
	COMMUNICATION THROUGH MUSIC: JAVANESE GAMELAN					
	<b>WEEK 18</b>					
	FINAL SCREENING AND PUBLIC EXHIBITION	Debrief and wrap up, review. All work supports final evaluation process.				

THE GLOBAL CITIZEN PROJECT: MIDDLE SCHOOL PROJECT BASED LEARNING COURSE  
STUDY PLAN GUIDING QUESTIONS



1. Research your position. What are the responsibilities of your crew? What kind of knowledge and skills will you need in order to do an excellent job? Imagine the final product ( picture our version of the Playing For Change videos), Describe what your team's contribution to that end product will be.
  
2. What will you do to develop these understandings and skills? How will you get there? What resources (books, websites, youtube clips, etc) will you use to help yourself learn?
  
3. To the best of your ability, describe how the work of your crew supports the overall project. Which other teams will you need to work with, in order to be successful? Why?
  
4. What are your personal learning goals for this project? What would you like to learn more about?
  
5. An important part of project learning is to understand yourself and how you learn. Please write about your personality and dependability.

Owning your learning

To what extent do you take responsibility for your own learning? To what extent will you push yourself to stay engaged in your work (even when its hard!) Describe how you respond to critical feedback? Do you use the information to grow and improve or are you more likely to ignore it or get defensive?

Working In Groups

Describe how you (personally) might support others in your group to succeed? What are some supportive actions and behaviors you can do to help your group be successful.

### Managing Social Relations

Describe how you (personally) will participate in your group. What kind of listener will you be? What kind of thinker will you be? What will you do to help everyone show respect for one another, listen and be supportive?

### Your Future

6. Imagine yourself at the final presentation, when we show our Global Citizen Video. What will you be most proud of? What skills or behaviors will you use later in your education (school) and life?

## **Annotated Bibliography**

Boss, S., & Krauss, J. (2007). *Reinventing project-based learning: your field guide to real-world projects in the digital age / Suzie Boss, Jane Krauss..*  
Eugene, Or.: International Society for Technology in Education.

*Reinventing* is filled with rich examples of project based learning. Published by the International Society for Technology in Education (ISTE), the book places a special focus on how technology can serve as a strong tool in PBL. This book remains true to its title: it is a field guide. It takes the reader through the many stages to developing, implementing and evaluating both teacher and student work in a project based setting.

Daggett, W. (2011). Rigor Relevance Framework. *International Center For Leadership in Education*. Retrieved March 25, 2011, from [www.leadered.com/pdf/R&Rframework.pdf](http://www.leadered.com/pdf/R&Rframework.pdf)

Willard Daggett's Rigor Relevance Framework is a curricular development concept and tool that juxtaposes two continuums, Bloom's Knowledge Taxonomy (Rigor) and an Application Model (Relevance) developed by Daggett, to generate four quadrants in which learning and knowledge is acquired and/or used. An essential component to the Rigor/Relevance Framework (R/R Framework) is establishing a learning environment that instills "respect, honesty,

civility and tolerance.” Once these dispositions are established a pathway to relevance and rigor can begin.

Green, L. (2008). *Music, informal learning and the school : A new classroom pedagogy*. Aldershot, Hampshire, England ; Burlington, VT: Ashgate.

Lucy Green’s work has sparked a music education transformation in the U.K. Basing her work off of a previous study on how popular musicians (i.e. musicians who play popular music) learn, *Music, Informal learning and the school* put these observations and theories into practice as the book documents and evaluates field research and case studies conducted by Green in U.K. secondary schools. The overall premise of the work is that students can have more ownership of their music education if they are given the chance and support to do so. Direct correlations can be made between Green’s work and that of Daggett’s Rigor Relevance Framework.

Pink, D. (2006). *A Whole New Mind*. New York, NY: Riverhead Books.

Pink’s work articulates six abilities that he deems necessary for success in the modern global economy: Design, Story, Symphony, Empathy, Play, Meaning.

He describes three catalysts that position the relevance of the six abilities amidst the dynamic global landscape: Asia’s rising workforce, the automation of the

digitally networked world and the general abundance of the Western world. On its own, *A Whole New Mind* mostly addresses the business world and could even be shelved in the pop psychology section. However, In the context of the 21<sup>st</sup> education movement, Pink's book takes on more resonance in that many of these skills can be gained from project based learning. Similarly, the education world (for better or worse) needs to prepare students to be successful in a the 21<sup>st</sup> century economic landscape.

Robinson, N., Bell, C., & Pogonowski, L. (2011). The Creative Music Strategy. *Music Educators Journal*, 97, 50-55.

The Creative Music Strategy is a teaching method to inform the music composition and improvisation process using an interdisciplinary model. It fosters art and music literacy through the active process of interpreting understanding of themes and disciplines through music. At the core of the creative music strategy is the application of higher order thinking skills found in the upper hierarchy of Blooms taxonomy, such as analysis, evaluation and creation. There are significant similarities between this approach and many of the pedagogical, critical thinking and open-ended essential questioning strategies presented in Boss and Krauss' *Reinventing Project Based Learning*.

Schippers, H. (2010). *Facing the music: shaping music education from a global perspective*. Oxford: Oxford University Press

Schippers' book presents a realistic vision for music education that departs from the "us and them" paradigm that has historically dominated any foray into studying "world music." Schippers suggests that the concepts of tradition, authenticity, and context are often used with firm conviction, but in reality are applied with ambiguous or even contradictory meaning. Rather, a "more dynamic interpretation of these terms can open the road to greater understanding of contemporary realities in music education at all levels" thus enabling teachers to apply the above concepts in a deeper and more meaningful way.

Sizer, Theodore R. (1996). *Horace's Hope: What works for the american high school*. New York: Houghton Mifflin Company, 1996.

As a founding member of the Coalition for Essential Schools, Sizer challenges the existing paradigm of traditional education through the fictitious tale of Horace Smith, a veteran teacher who knows that school can and should be better. Teachers can easily empathize with Horace as he negotiates the realities and road blocks of the sluggish institution of education. Sizer's work calls upon the education system to create relevant learning opportunities for students that can propel them towards deeper intellectual curiosity and pursuits.

Wagner, T. (2008). *The global achievement gap*. New York: Basic Books.

An excellent presentation to the needs of the 21st century learner. Wagner discusses the gap that exists between what these learners need and what the current public education system offers. In many ways this book builds off of Sizer's work in the context of a rapidly changing world that further strengthens the need for change in education.

Wiggins, G. P., & McTighe, J. (1998). *Understanding by design*. Alexandria, Va.: Association for Supervision and Curriculum Development

At its core Wiggins and McTighe "Understanding By Design (2006) is a three part process that includes establishing the desired results for students that include identification of essential questions and enduring understandings, determining acceptable evidence of the students learning through a variety of assessment practices and development and design of learning experiences and instruction. Deeply nuanced, this thoughtful text illuminates a path for curriculum design that strives to support meaningful understanding of concrete skills and information as well as more complex open ended questions and themes.

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