

# Big Ideas in music teaching and learning: implications for cognitive research and practice<sup>1</sup>

GRANDES IDEIAS NO ENSINO E APRENDIZAGEM DE MÚSICA: IMPLICAÇÕES PARA A PESQUISA EM COGNIÇÃO E PARA A PRÁTICA

**PETER R. WEBSTER** Scholar in Residence, Thornton School of Music, University of Southern California ▶ [peterweb@usc.edu](mailto:peterweb@usc.edu)

## abstract

This paper offers seven Big Ideas about music teaching and learning that might be considered in the coming years. They are offered in the spirit of reform for teaching music and include notions based on a constructivist-centered approach that favors student voice in creating music, integrating work with other disciplines, and improving assessment. The paper challenges teachers to consider who, what and where we teach music.

**KEYWORDS:** music teaching and learning, cognitive research, music education practice.

## resumo

Este artigo oferece sete Grandes Ideias sobre o ensino e a aprendizagem de música que devem vir a ser consideradas nos próximos anos. Essas ideias são oferecidas em um espírito de reforma do ensino de música e incluem noções baseadas em uma abordagem centrada no construtivismo que favoreça a voz do estudante na criação de música, no trabalho integrado com outras disciplinas e no aperfeiçoamento da avaliação. Este artigo desafia os professores a considerarem quem, o quê e onde nós ensinamos música.

**PALAVRAS-CHAVE:** ensino e aprendizagem de música, pesquisa em cognição, prática de educação musical.

**M**usic teaching done well is hard. In fact, all of education done well is indeed hard work. To attain a high level of professional achievement as a music teacher requires the highest levels of commitment to being better. For me this means thinking of music teaching comprehensively to cognitively understand music. That is at the heart of this paper.

1. This paper is based on a video presentation prepared for viewing at the International Symposium on Cognition and Musical Arts (SIMCAM) in May of 2016. A first version of this paper was given on the occasion of my retirement from Northwestern University, Bienen School of Music, in the Spring of 2012.

I often feel that some teachers do not see themselves as responsible for the complete cognitive musical development of their students. By this I mean that some think that teaching music is only about skills and techniques to play and sing better for a small percentage of talented students. Music performance from notated scores that the "masters" have written is seen as the ultimate musical experience. Playing and singing only certain kinds of music is what matters, music in the Western, European tradition. Playing and singing in only certain kinds of ensembles really matters in the long run. Sometimes, in my darkest hours, I think that some see themselves as the great saviors of the unwashed, preaching their personal beliefs about music (and only a certain kind of music written by others) as the only way to teaching glory as they know it and with no consideration of student interests or understanding. After all it is easier to teach people this way. The mindset goes like this: "There is only one kind of music that matters and there is only one way to understand this music - my way. If you don't like it, too bad. You are clearly not gifted enough to benefit from my great wisdom".

Of course I am exaggerating to make a point. But I do worry about those that do not consider the bigger picture of what it means to teach comprehensively and to celebrate the many pluralities of music as art. It is important to realize that today's youth have an abundance of opportunity to make and understand music in many ways and that we as teachers have a role in encouraging and accommodating this diversity.

So in the spirit of improving practice, of thinking about music more comprehensively and to work at being better, I have identified seven BIG IDEAS<sup>2</sup> that can form the basis for change and ultimately better teaching and, I would add, better music cognition.

These ideas should foster growth in what we do. Keep in mind that one of the biggest tragedies we face is complacency – an unwillingness to consider any sort of new idea or change. Change is work, change might end in failure, change is threatening, change requires risk. These big ideas are not easy to address, but completely worth considering if we are to grow professionally. For me, they are also at the heart of creative thinking in music.

As a short aside: Perhaps I will call upon my experience as a boater – some of you may identify with this. As I go from marina to marina, I often see the same thing. I encounter mariners that sit on the docks in their expensive crafts, hooked to power cords and cable TV, considering their boat as floating houses on the water. No charting of new courses for those folks, no cruising to new and different ports, or practicing new skills – no interest in the promise of amazing experiences at sea beyond the security of the dock lines. I see similar patterns in music teachers.

My big ideas may not be yours, so bear with me. I am going to list mine and then you can add your own in further publications. Perhaps we can start a dialog in this journal about some the big ideas that I have missed or have presented poorly.

2. The notion of BIG IDEAS in various fields of education is hardly a new take on improving the narrative on school reform. For example, see Martinez (2011).

## Philosophy as a driving force: adapted constructivism

The first idea is a rather standard one in teacher education but often it is not stressed enough: the need for a carefully crafted philosophy of teaching that includes a more comprehensive view of what we do. I will suggest here one that works well for my way of thinking about teaching practice but each teacher should craft their own. Here is mine. I call it “adapted constructivism” (Webster, 2011). I am thinking about the role of teacher and student and the magical tradeoffs of teacher-centered vs. student-centered learning. It’s the epistemological notion of constructed learning that comes from each person’s interaction with ideas, experiences, and social interaction with others. It’s the notion that real learning is constructed individually by each of us in our way by the experiences we have and not simply being “told” what is “truth”. These are notions that grow out the work of people like Piaget, Dewey, Bruner and Howard Gardner to name a few scholars. The question is: Do we learn best by direct instruction with the teacher dominating all that we learn or do we learn best by experimenting with ideas, problem solving, problem finding, and constructing our own meaning as we go? The answer for me is both – sometimes one – sometimes the other but NEVER only one all the time. So my first big idea is the notion of *adapted constructionism* as a pathway for cognitive understanding of music. Great teaching for me happens when we work for an artful blend of student discovery (perhaps with a little tolerance for failure along the way) and strong teacher direction when needed. I regret that our profession is too often dominated by top-down teachers to the point of little allowance for student feelings and personal discoveries. This is for me just plain bad music teaching that leads to bad learning. Always telling a student what is wrong with their sound or telling students what to think and feel while listening to music without allowance for personal analysis, or always conducting ensembles with no questioning, group problem-solving, or reflective wonderments about the music being played, sung, composed or improvised leads to failure for life-long music understanding and participation. Think back on some of the great teachers in your life that have really made a difference and I am guessing that you can remember this balance approach to encouraging your learning.

## Encouragement of creative thinking in music

A natural outgrowth of this first idea is one that has consumed me since my early days in graduate school: *the nurturing and celebration of creative thinking in music – thinking in sound*. By this I mean the opportunity at every turn to allow students to imagine in sound, to create their own music as much as is humanly possible. From the moment we teach a young trumpet player, for example, to being to play the most basic sounds, we should encourage improvisation and perhaps some prototypical composition. Fear not that the notation is not featured – concentrate on creative music making as so many other cultures around the world do. In our beginning ensembles we must, from the very start, ask questions about sounds and encourage students to imagine and reflect about why the music sounds the way it does<sup>3</sup>.

3. The reader is encouraged to view the extraordinary TEDTalk in 2007 by Evelyn Glennie, a famous percussion soloist. The talk features the incredible importance of sound and she encourages us all to focus more completely on listening to the nuances of sounds. It is even more remarkable that this fine performance musician has profound hearing loss and relies on other ways to “hear” (<https://www.youtube.com/watch?v=IU3V6zNER4g>).

I often speak of divergent and convergent thinking in my classes – of taking the time to play with ideas, to encourage creative projects that frankly, push the edges a little. I believe in this so completely. For example, I have grave concern about the single-minded direction of some music teachers – always chasing the endless goal of exquisite performance as if our school ensembles are only little versions of the Chicago Symphony instead of amazing laboratories for learning about music. I of course want our ensembles to perform musically and as error-free as possible, but I also want music teachers to balance that with attention to a wider range of music learnings that might come with better music listening, experiments with composing and improvising, and encouraging the musical imagination as much as possible. A big part of this second idea is sharing of our music with audiences in more interactive and experimental ways, rather than with the ritual that marks our Western concert halls.

Over the years, I have developed a model for creative thinking in music which I include here (see Figure 1). In this model, I suggest that we begin with a product intention and end with a creative production which I maintain is necessary to accomplish a creative act. In the center of this model there is a process that is informed by enabling conditions and enabling skills and involves ever so subtle movements between convergent decision making and divergent brainstorming of ideas. Creative thinking in sound is not mysterious and reserved for the very “gifted” but a fundamental way to teach music to all (Webster, 2002; 2013).

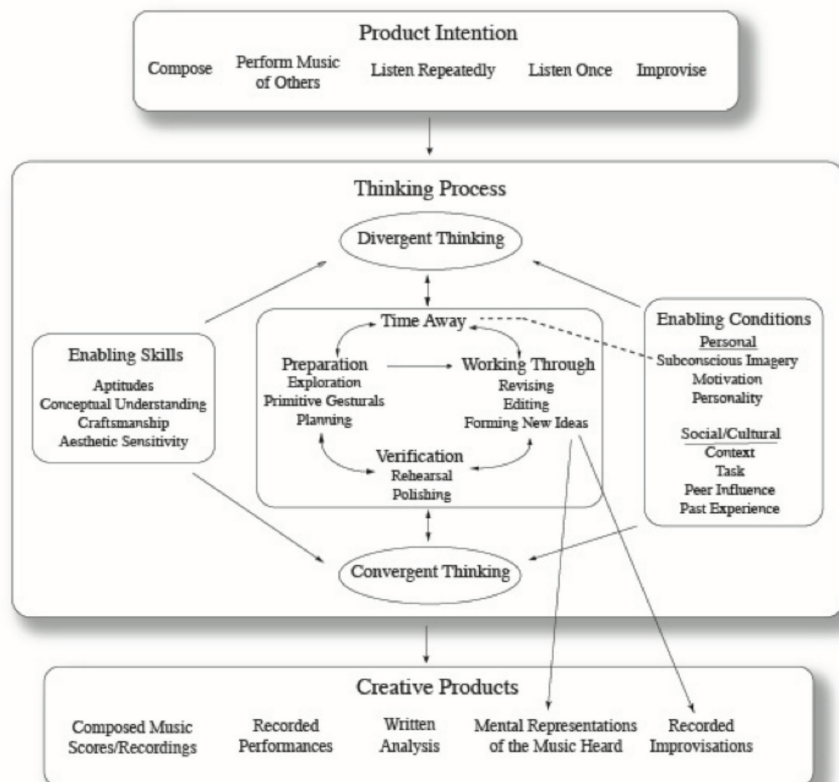


FIGURE 1

*Model of creative thinking in music*

## Interdisciplinary polymathic thinking

My third idea is about music and its relation to and influence on other things that are of meaning in life. By this I mean interdisciplinary understandings that help to inform and even transcend the musical experience by connecting it to other art forms and to other aspects of our world. One might call this polymathic thinking within our field of music and in relation to other fields of study<sup>4</sup>. This is an idea that has not gotten the important attention that it should. Even within our own academies of music we find it so difficult to relate music pedagogy to allied areas of music theory, music history, and music performance. As colleges and universities, we rarely reconsider the ways we deliver our nationally accredited programs of study<sup>5</sup>. But even beyond these professional failures we have not found adequate ways to encourage teachers in schools to collaborate actively and frequently with teachers of art, creative writing, theatre, chemistry, math, and reading – to note a few. This **does** occur of course from time to time and the results are often spectacular, but it hardly is common practice. It has always seemed wrong to me that we create systems where students move between these worlds every year as they take a variety of classes in school and we assume that transfer and connections happen by themselves. We need to teach for transfer and connections and teach collaboratively with others.

## More expanded use of meaningful assessment

My fourth candidate for a big idea is the better use of assessment in understanding student ability and learning. We ought to give more thought to assessment that is meaningful for learning and that is designed as a springboard for change for both ourselves as teachers and our students.

This big idea has many moving parts. In terms of aptitude, I have long pleaded for a more expanded view of music aptitude to go beyond perception of patterns of rhythmic and melodic difference or similarity. I have authored a measure of creative thinking in music (MCTM-II) which some of you may have seen. It is based on quasi-improvisational activities for younger children and uses some of the constructs that are often considered important for creative work. I freely distribute this measure from my website (<http://www.peterwebster.com/>) (Also see Webster (forthcoming) for some recent thinking about aptitude and achievement in the context of creative thinking.). Measures like this push the boundaries of assessment, but I think in healthy ways.

In terms of our assessment of student achievement, we need to expand assessment to include portfolios of evidence for student learning that include not only the usual paper and pencil tests, final exams and juries, but also the kind of formative assessment that are more complex in design. Students should have a role in designing these approaches in some collaborative way. We should be trending toward a system where students act as their own critics and take more ownership of their learning. I imagine more effective use of journals; Internet blogs; notebooks;

4. See Professor Janet Barrett's explanation of the Facets Model as a way to generate multidisciplinary thinking in curricula ([https://www.youtube.com/watch?v=5H-JJ\\_xYvc0](https://www.youtube.com/watch?v=5H-JJ_xYvc0)).

5. For a recent account of how our curriculums in higher education might change, see Sarath, Myers, and Campbell (2016).

portfolios of analog and digital projects; multi-media presentations, and creative products such as music compositions and listening maps – all constructed by students under our guidance and encouragement and discussed and evaluated in classes in constructive ways. Good teaching for me leads each student to their individual paths of excellence in different ways using a variety of evidence to demonstrate learning.

I also think of assessment as not just about **student** learning, but also **teacher** learning. Teachers need to reflect on their practice on a regular basis systematically in ways that help them improve; just as in fields such as engineering, law and medicine, this is part of what it means to be a “professional”. If our students are not learning, teachers need to muster the courage to figure out why and to seek ways to improve.

Another part of assessment for me is using research tools, both qualitative and quantitative, to find answers to important questions about music teaching and learning. The profession is often criticized for not using research findings to impact practice. If this is to change, the kind of systematic thinking about our praxis that assessment and research evidence requires should be built into the fabric of music teacher education at the undergraduate level. There is simply nothing mysterious about a correlation coefficient or a simple test of significance or an embedded theme discovered by coding some complex interactions (Webster, 2012). These should be teacher tools much like other professions and not restricted to college professors.

## Who do we teach

Each of these four big ideas relate to the “how” of music teaching but my fifth notion relates to the “who”: *Who do we teach?* A great challenge that we face as music educators in the schools today is engaging as many of our students in music as possible and not just the advantaged few that began an instrument at grade four or who have sung in their school choir from the very start. A large percentage of our high schools, for example, find music outside the influence of a professional music educator. That is of course natural to expect but it is made all the more complex and unnecessary by instructional traditions that only see certain kinds of music as what music teaching should be about. We must find more effective ways to engage wider audiences of students in musical experiences that may not be traditional performance experiences in bands, choruses and orchestras but a wider and more varied set of ensembles and classes (Green, 2002). I contend that the music educator of the 21<sup>st</sup> century is no longer like your father’s or mother’s music teacher. We need to change our paradigm of what music teachers do in high school for example (Williams, 2012). This is a big idea for sure and one that challenges all of us.

## What kind of music should we teach

This leads to my sixth big idea. It is a WHAT idea. *What kind of music should we teach?* This is quickly becoming the hottest topic in professional circles these days. What about popular music in our schools and music of other cultures? John Kratus has argued forcefully for several

years for a sea change in music education (Kratus, 2007). For him, we are in Malcom Gladwell's terms (Gladwell, 2006), at the Tipping Point in music education. John is fond of displaying a graphic that represents the curriculum of the older conservatories of Europe and placing that beside the curriculums of today's music programs – noting little change. He advocates a wholesale revision of college curricula in preparing teachers. As part of this, he argues for a vastly different engagement of music in our schools – making the point that the music of today's youth is far removed from the music we do in schools. Traditional music educators are often not prepared to understand the popular music scene in all its complexities. We are out of touch with the stunning examples of students' remixes, mashups and covers of contemporary artists of all types. Such examples found in the social media are often indicative of excellent music skills – perhaps of a different kind that we currently celebrate. Turning to the world stage, certainly the wonders of world music are important also and part of this big idea. Music educators need to always challenge themselves to feature music performances that are, in some degree, influenced by the music of other cultures. Of course this means that our teachers must be aware of such music and understand it as much as possible. One way to do this of course is to invite community members who are world musicians to our classes and ensembles.

We need to teach our audiences about this music as well, by turning around from the podium and talking to our student's parents and grandparents about this music – much in the style of the Leonard Bernstein Young Persons Concerts and others (<https://youtu.be/2AFovpvDRCI?list=PL0E30230A601C2315>).

My own position on this big idea is tempered by my long standing love of Western art music. I just do not want to loose the objective of a well-educated high school student finding the music of Brahms and Beethoven to be some of the most exciting stuff ever. "Awesome" says the young streetwise Latina when she really gets into Mozart's Symphony Number 40 or Stravinsky's Rite of Spring. Why can't we conceive of music teaching and learning as being diverse in this regard? Music students have Cold Play, Coltrane and Chopin styles rendered by Pandora software on their smartphones. Why can't we deal with this reality in positive and productive ways in our teaching? Perhaps the implication for this big idea is simply to strive for balance in our choice of repertoire that we engage with our students – knowing that we cannot cover all music all the time and that students in their own way and in their own time can find out from other resources what they feel they need to know about music. We need to teach them how to do this if they do not already know.

## Technology

In fact, this leads to my last big idea. Technological affordances – a dimension of music teaching and learning that continues to reform and refine what we do as it has done for generations before us. This to me is a WHERE question. Technology has of course assisted in formal learning of technical skills for years, but the real power of technology is of course its allowances for personal creative expression rooted in all of the ideas above (Williams; Webster, 2008). Also technology allows music learning to occur at anytime and anywhere. I need not

bore you with a recitation about hardware and software advances, "cloud" computing, portable devices and such but I will challenge you to think about technology's effect on learning outside of the walls of institutions – community music settings, bathrooms, attics, train stations, mountain tops, yes – even boats. Learning about music has moved from just room 109 in some music building on campus on a Tuesday morning to outlets all over the world. In music teaching and learning we are seeing more and more courses available via Internet broadcast technology – even complete degree programs. The way we integrate and celebrate but carefully consider these affordances in our teaching is a really big idea of today (Webster, 2016).

## Summary

So there you have my list. I have tried to write and lecture about these in various ways in my lifetime and I will continue to do so as long as I am able. I tell my students that this is perhaps the most exciting time to be a music teacher and when the history of our profession is written long after all of us are boating in heaven or hell, this period now will be seen as a major time for change. We will probably run aground along the way at times. But we will have succeeded in continuing to make music the life changing experience that it has always been and will forever be.

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**Peter R. Webster** é professor de Educação Musical da Thornton School of Music, University of Southern California (USC), especialista em tópicos como pensamento criativo em música, avaliação e tecnologia em música. É professor emérito da Bienen School of Music, Northwestern University, onde foi professor de música e assumiu cargos administrativos por 25 anos. Webster possui graduação em Educação Musical pela University of Southern Maine e doutorado pela Eastman School of Music, University of Rochester. Sua produção científica compreende mais de 80 artigos e capítulos de livros sobre tecnologia, prática de educação musical e pensamento criativo em música. Webster faz parte do conselho editorial de vários periódicos de prestígio e tem sido editor de vários projetos, incluindo a coedição do *MENC Handbook of research on music learning*, publicado pela Oxford University Press. É coautor da obra *Experiencing music technology*, um livro texto básico nos cursos universitários de tecnologia em música, e autor de *Measures of creative thinking in music*, uma ferramenta exploratória para avaliar o pensamento em música usando tarefas de *quasi-improvisação*.