

Encouraging Imaginative Thought in Music with Students in Our Classes

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Key Points

When we go home at night, we should ask ourselves: Have I maximized the opportunities for all learners to make their own aesthetic decisions with my guidance and encouragement?

If we expect our students to be creative professionals in their own teaching, scholarship and music making, we should try to model this sort of behavior.

Among the many qualities of great teachers, some important ones for maximizing creative thinking: risk taking, posing of problems, questioning, encouraging discourse, favoring project- and student-centered work, ensuring student independence

Better to use the terms “creative thinking” and not “creativity” Concentrate on the term “imagination”

Creative thinking in music is the engagement of the mind in the active, structured process of thinking in sound for the purpose of producing some product that is new for the creator. Creative thinking is a dynamic process of alternation between convergent and divergent thinking, moving in stages over time, enabled by certain skills (both innate and learned), and by certain conditions, all resulting in a final product.

Big Ideas in Music Education Today

- Adaptive Constructionism
- Creative Thinking in Music
- Interdisciplinary Connections
- Embedded, student-centered assessment
- Broadening of WHO we teach
- Reconsideration of WHAT we Teach
- Rethinking of WHERE we teach

Constructivism is a useful epistemological perspective for those interested in the encouragement of creative behavior in themselves and in others.

- Knowledge is formed as part of the learner’s active interaction with the world.
- Knowledge exists less as abstract entities outside of the learner and absorbed by the learner; rather it is constructed anew through action.
- Meaning is constructed with this knowledge.
- Learning is, in large part, a social activity.

“Although constructivism is not a theory of teaching, it suggests taking a radically different approach to instruction from that used in most schools. Teachers who base their practice on constructivism reject the notions that meaning can be passed on to learners via symbols or transmission, that learners can incorporate exact copies of teachers’ understanding for their own use, that whole concepts can be broken down into discrete sub-skills, and that concepts can be taught out of context. In contrast, a constructivist view of learning suggests an approach to teaching that gives learners the opportunity for concrete, contextually meaningful experience through which they can search for patterns, raise their own questions, and construct their own models, concepts, and strategies. The classroom is seen as a minisociety, a community of learners engaged in activity, discourse, and reflection.” (Fosnot, 1996, p. ix)

<u>Pedagogical Concept</u>	<u>Older View</u>	<u>Newer View</u>
Relationship Between Ideas	Hierarchical	Networked
Environment	Highly Structured	More Informal
Thinking	Lower-order, linear skills valued; convergent thinking, memorization	High-order, non-linear thinking valued, convergent and divergent thinking, application of knowledge, critical and creative thinking
Instructional goal	Memorization	Inquiry and invention
Relationship Between Student and Teacher	Instructors are experts with learners as passive receptors	Instructors are seen as mentors with students as active participants
Teacher Role	Fact Teller	Architect of school experience by creating opportunities for discovered learning
Student Role	Listener	Discover of learning with guidance from teacher and other resources
Classroom Activity	Didactic	Interactive
Approach to Knowledge	Accumulation of facts, centered in the classroom/school	Transformation and application of facts, knowledge sources both in and outside of the classroom/school
Role of Technology	Drill and practice reinforcement, information defined by the machine/system	Active agent for new knowledge via simulation, non-linear links, multimedia, interactivity
Assessment	Norm-referenced measures, standardized testing, objective measurement, teacher-centered assessment	Criterion-referenced, portfolios of achievement, self-assessment, rubric-based scales,
Success	Based on quantity of knowledge	Based on quality of understanding and application

I believe in a kind of *adapted constructivism* when it comes to the majority of teaching we do as music professors. There is much to our profession that must be understood and mastered, but there is also much room for creative application in a constructivist way.

With the tools that all learners have today to access information, perhaps our goal is less on the mastery of large amounts of musical information and more on the process by which students think *in* and *about* sound.

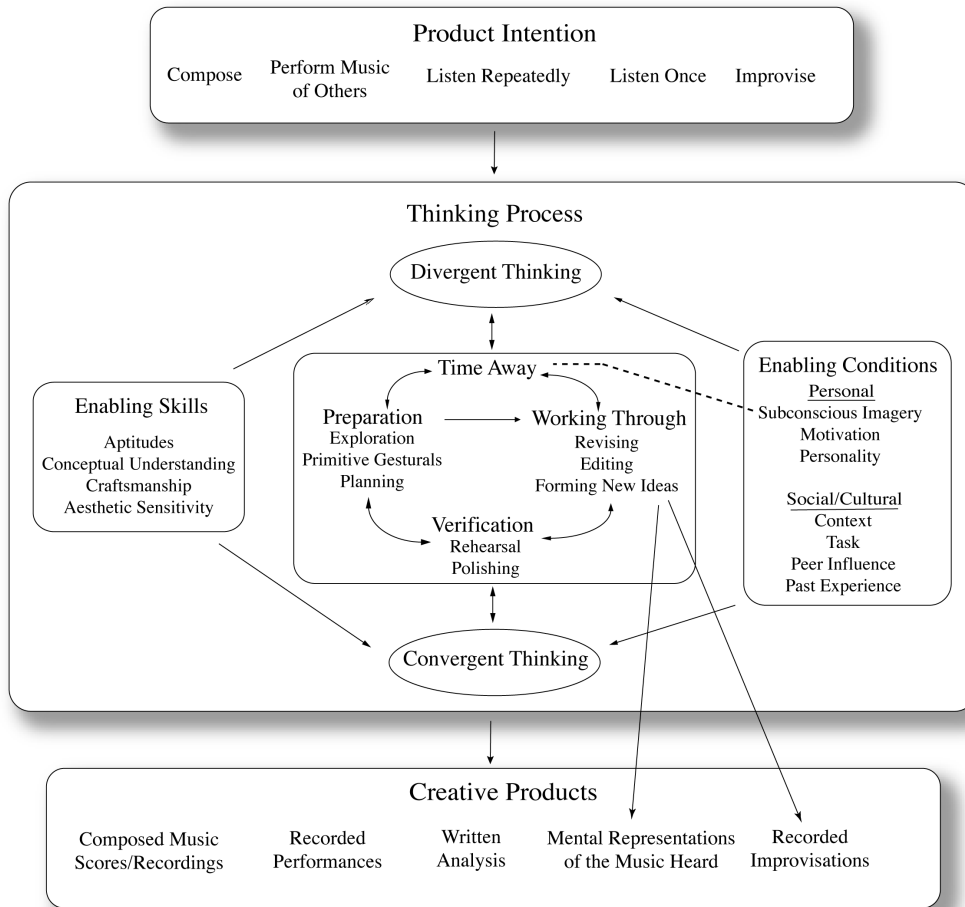
Key question: At the end of an instructional period, how have we done in allowing our students to make aesthetic judgments so their own?

Instructional strategies that can foster and allow for the assessment of creative thinking in our students and, in so doing, exercise some of our own imaginative thinking in terms of instruction:

- Projects done collaboratively resulting in a poster
- Class discussions in small groups leading to a collective presentation
- Diagrams of musical scores without the use of conventional notation
- Teacher assuming the role of student and student as teacher
- Music listening exercises that are game-based
- Physically representing the music structure with students forming a body structure
- Making more systematic use of Internet video/audio exchanges in real-time with a class in another town, state or country
- Move the music class to an outdoor setting and record sounds from the environment
- Look for chances to improvise as warmups in ensembles, look for chances to improvise all the time
- Bring an art or English teacher to class to discuss their understandings on music as it relates to there fields of study, then do the reverse
- Have students all bring their mp3 players to class and randomly select tracks to listen to and discuss
- Use the Twitter software to record reactions to a weekend's music consumption
- Use cell phones in class rather than ban them

Others?

Figure 2 Model of Creative Thinking Process in Music



Music Experience	Preschool	Elementary		Middle and High School	
Creating (Composition and Improvisation)	Bloom (iOS)	Bloom (iOS)	MadPad (iOS)	Ableton Live (M/W)	Jamestudio (I)
	Keezy (iOS)	Garageband (iOS) (iOS)	moxMatrix	Audacity (M/W)	Logic Pro (M/W)
	Pitch Painter (iOS)	Hyperscore (W) (iOS)	Loopesque	Audiotool (I)	Loopesque (iOS)
	Singing Fingers (iOS)	Keezy (iOS)	Orphion (iOS)	Beatlab (G)	Mixcraft (W)
	SoundBrush (iOS)	Mixcraft (W) (I/iOS/A)	Isle of Tune	Figure (iOS)	moxMatrix (iOS)
		Pattern Music (iOS)	Figure (iOS)	Figure (iOS)	ProTools (M/W)
		SoundBrush (iOS) (iOS)	MelodyMorph	Garageband (iOS/M)	Rebirth (iOS)
		Tonematrix (I) (iOS/A)	NodeBeat	GroveMixer (A)	Sector (iOS)
				Hyperscore (W)	Soundation (I)
				Indaba.com (I)	ToneCraft (I)
		<u>Notation-Based</u>		<u>Notation-Based</u>	
				Finale (M/W)	NoteFlight (I)
		NotateMe (iOS)		MuseScore (M/W)	Scorio (iOS/G/I)
		NoteFlight (I)			
Responding	Apple Radio (iOS, M)	Apple Radio (iOS, M)	Practica	Apple Radio (iOS, M)	Shamza (iOS/A,I)
	Impromptu (M, W)	Musica (M/W)		MusicTheory.net (I)	Soundcloud (I)
	Pandora (I, iOS, A)	Educreations (iOS/I) (iOS/A,I)	Shamza	Pandora (I, iOS, A)	Spotify (I)
	Pitch Painter (iOS)	Impromptu (M, W)	Soundcloud (I)	Practica Musica (M/W)	
	Singing Fingers (iOS)	MusicTheory.net (I)	Spotify (I)		
	SoundBrush (iOS)	Pandora (I, iOS, A)			
Performing	AirVox (iOS)	Crystal Synth (iOS)		ChordMapMidi (iOS)	SmartMusic (I)
	AUMI (iOS)	EAMIR Note (iOS)		Garageband (iOS, M)	SynthZ (iOS)
	EAMIR Note (iOS)	Garageband (iOS, M)		iKaossilator (iOS)	ThumbJam (iOS)
	Garageband (iOS, M)	iKaossilator (iOS)		JAM with Chrome (G)	Voice Analyzer Pro (iOS)
	iKaossilator (iOS)	Synthesia (iOS)		Rockmate (iOS)	Voice Coach (iOS)
		Theremin (I)		Seline Ultimate (iOS)	
		ThumbJam (iOS)			

Note: iOS=Apple operating system (iPhone or iPad)

AD=Android operating system for other tablets and phones

G=Google app (works with Google-based software)

I = Internet-based (cloud) (works with most browser software)

M=Macintosh computer

W=Windows computer

All software can be referenced by title on the Internet to find more information. Most are free or are offered at minimal charge; computer-based software tends to be more expensive. The author gratefully acknowledges Jesse Rathgeber (PhD student at Arizona State University) for his expert advise on selected software.

Table x.1 Exemplar Software by Age and Music Experience

Books and Papers

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