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A Creativity Model for Teaching Stylistic Improvisation

This paper a) examines the nature of creative thinking in musical improvisation, b) examines music teachers' confidence in their improvisation abilities and c) proposes a model for teaching stylistic improvisation. First, factor analysis of improvisations of college jazz singers indicates that divergent thinking, as exemplified through variety, originality and elaboration of musical ideas, is less important than the more convergent items of stylistic appropriateness and correct notes.

Studies show that music teachers lack confidence in their ability to improvise and to teach improvisation, but are very motivated to learn more. A pre- and post-treatment questionnaire indicated that an intensive summer workshop can significantly improve confidence in teaching stylistic improvisation as specified by the National Standards for Arts Education.

Improvisation is considered to be a creative musical activity, but we seldom question how frequently student improvisations are truly "creative." What exactly is "creativity" and at what point does "creative" thinking emerge in the musical improvisation process? More importantly, if improvisation is a musical activity that potentiates further creative thinking processes and enables deeper understanding of music, why are most music teachers fearful and incompetent when it comes to teaching improvisation, or improvising themselves? If teachers cannot improvise themselves, how can they guide creative improvisation experiences for students? These questions need to be addressed as we try to envision models for teaching musical improvisation.

Let us examine, first, some characteristics of creative thinking in music, followed by teacher attitudes toward improvisation, and finally a model for teaching improvisation within the requirements of a style.
Creative thinking is often described as divergent thinking, which is exemplified through the generation of fluent (many), flexible (varied), and original (unusual) ideas. While the Torrance Tests of Creative Thinking (TTCT, 1990) purport to assess general creativity by measuring fluency, flexibility, elaboration and originality of verbal or figural ideas, questions remain as to whether there is a relationship between general creativity and musical creativity. For example, no significant relationships were identified between the TTCT and the vocal jazz improvisations of college students from across the United States (Madura, 1991; Madura, 1996). This was especially surprising in light of the fact that the improvisations were evaluated for musical flexibility, originality, and elaboration.

Interestingly, despite the lack of correlation between the TTCT and the vocal jazz improvisation scores, when all 19 improvisation evaluation criteria were submitted to factor analysis, singers’ flexibility, originality and elaboration scores tended to group together into one factor, which was dominated by three factor-simple items: dynamic variety (.835), timbral variety (.752), and range variety (.726) (see Table 1). Other salient loadings included rhythmic and tonal variety, originality and motivic development (elaboration). The fact that these divergent thinking items grouped together into one factor does suggest that they comprise a distinctly creative aspect of music making. However, of particular relevance to this paper is the fact that the creativity factor (Factor 3) accounted for only 6% of the variance, strongly suggesting that an effective jazz improvisation solo of a college level singer is not primarily a divergent production activity. Factor 1 explained far more variance (66%) than the divergence factor did, and it was dominated by stylistically appropriate rhythmic feel and figures. Factor 2 included tonal ideas, especially the convergent items of correct use of scale/chord relationships and good intonation, which accounted for an additional 8%. Although 80% of the variance of vocal jazz improvisation achievement was explained by these three factors, the divergent characteristics of variety, elaboration and originality meant little without stylistic knowledge and musicianship (Madura, 1992).

Improvisation performance practice from around the world indicates that improvisation is not solely a creative or divergent activity. Improvisation in Western classical music, as well as in other art music of the world (such as Indian and Persian) requires that a vast repertoire of stylistically appropriate rhythmic and melodic patterns as well as scales/modes and forms be internalized (Jairazbhoy, 1995).
The musical language of a particular style is usually learned through years of extensive listening, imitation, practice, and study of that style's musical materials. As a stylistic language becomes internalized, the musician can begin to effectively improvise in that style, automatically drawing upon a wealth of stylistically appropriate patterns and formulae.

Does calling upon and interweaving a variety of known patterns
for improvisation constitute creative thinking? If variety and elaboration are essential aspects of creative thinking, then yes. But originality is essential as well. How can we teach students to be original improvisers within the requirements of a style?

Various studies have suggested that schools stifle musical originality, and that musical experiences outside school are often the main motivators for creativity (Auh, 1995; Kinney, 1990). This is likely due to the traditional approach to music teaching which has placed little value on the teaching of improvisation and composition in various musical styles, and more on the accurate performance of written musical works, competition, and to a lesser degree, reading. One solution to this problem lies with a new breed of music teachers and the National Standards for Arts Education (1994) which have suggested some worthy goals. Note

**Table 2. Content Standard: Improvising melodies, variations and accompaniments**

<table>
<thead>
<tr>
<th>Grades K-4</th>
<th>Grades 5-8</th>
<th>Grades 9-12 Proficient</th>
<th>Grades 9-12 Advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvise “answers” in the same style to given rhythmic and melodic phrases (a)</td>
<td>Improvise simple harmonic accompaniments (a)</td>
<td>Improvise stylistically appropriate harmonizing parts (a)</td>
<td></td>
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<tr>
<td>Improvise simple rhythmic and melodic ostinato accompaniments (b)</td>
<td>Improvise melodic embellishments and simple rhythmic variations on given pentatonic melodies and melodies in major keys (b)</td>
<td>Improvise rhythmic and melodic variations on given pentatonic melodies and melodies in major and minor keys (b)</td>
<td></td>
</tr>
<tr>
<td>Improvise simple rhythmic variations and simple melodic embellishments on familiar melodies (c)</td>
<td>Improvise short melodies, unaccompanied and over given rhythmic accompaniments, each in a consistent style, meter and tonality (c)</td>
<td>Improvise original melodies over given chord progressions, each in a consistent style, meter and tonality (c)</td>
<td></td>
</tr>
<tr>
<td>Improvise short songs and instrumental pieces, using a variety of sound sources, including traditional sounds, nontraditional sounds available in the classroom, body sounds and sounds produced by electronic means (d)</td>
<td></td>
<td></td>
<td>Improvise stylistically appropriate harmonizing parts in a variety of styles (d)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Improvise original melodies in a variety of styles, over given chord progressions, each in a consistent style, meter and tonality (e)</td>
</tr>
</tbody>
</table>
the improvisation standards for grades K-4, 5-8, 9-12 and the references to stylistic improvisation in Table 2.

Unfortunately, research on musicians' abilities to teach the national standards of improvisation and composition indicates that they are neither prepared nor confident (Wollenzien, 1999; Kirkland, 1996; Jorgensen, 1997; Riveire, 1997.) In my recent survey of eighty-three MENC vocal jazz workshop attendees, this lack of confidence was again evident (Madura, 2000) (see Figure 1). Subjects were asked to rate their confidence in teaching the improvisation standards on a scale from 1 (Not At All Confident) to 5 (Very Confident). While they felt moderately confident to teach improvisation according to the National Standards for kindergarten through fourth grade, they became increasingly insecure.

**Figure 1. Means for Confidence in Teaching K-12 National Standards for Improvisation (N=83)**

![Graph showing confidence levels for teaching K-12 national standards for improvisation](image)

with the more advanced improvisation standards that require stylistic knowledge. In other words, they felt relatively competent to teach improvisation to grades K-4, where free improvisation and Orff and Kodaly techniques of call and response improvisation are appropriate; but less so for the stylistic improvisation recommended for later grades. Obviously, music teachers must become proficient at improvising in at least one style of music. While jazz is a style that is important to American music, and should be encouraged for all musicians, classically-trained musicians may want to hone their classical improvisation skills, or learn multicultural or popular improvisation techniques.

The results of the MENC questionnaire also indicated that teachers had little confidence in their own ability to improvise (TCANDO), but were highly motivated to learn how to teach improvisation (TLEARN). They rated intensive summer workshops as their highest preference for learning more, so when the opportunity arose for me to teach three vocal jazz workshops during the summer of 2000, I decided to further examine music teachers’ perspectives on teaching and learning improvisation. Workshops were held at the University of Southern California and Central Connecticut State University, and fulfilled master’s level requirements for music education majors. The University of South Carolina workshop was cancelled, so in order to increase the sample size, I distributed the questionnaire to another University of Southern California graduate music education class. Combining the three classes resulted in a sample of 24 graduate students, equally divided between those enrolled in a vocal jazz course and those enrolled in a non-jazz course. A 14-item questionnaire was designed to collect both quantitative and qualitative data, and was given at the start of the courses.

The results are remarkably similar to those of the MENC questionnaire, indicating that students lack confidence in their abilities to improvise and to teach improvisation, but are very motivated to learn more (see Figure 2).

Question #1 asked, “How confident are you in your present ability to improvise jazz?” (JZIMPCNF). The combined mean was 1.8 on a scale from 1 (low) to 4 (high). Question #2 asked, “How interested are you in learning to become a better jazz improviser?” (JZIMPMOT). The mean was 3.5. Questions #3 asked, “How interested are you in learning to become a better improvisor in a style other than jazz?” (NJIMPMOT). The mean was 3.15, with the styles of interest identified as classical, world, African, Latin, Gospel, atonal, contemporary, popular, Armenian, Irish, Cajun and folk. It is clear that the lack of improvisation activity is
not due to a lack of interest.

The next four questions pertained specifically to the advanced National Standards that recommend high school students be able to improvise melodies and harmonies in a variety of styles. When asked, “How confident are you in your ability to teach students to improvise original melodies over given chord progressions in jazz style?” (NSJAZMEL), the mean was 1.8 on the scale from 1 (low) to 4 (high); and “in a style other than jazz?” (NSNJMEL), the mean was 2.2. When asked, “How confident are you in your ability to teach students to improvise harmonizing parts in jazz style?” (NSJAZHAR), the mean was 1.65, and “in a style other than jazz?” (NSNJHAR), the mean was 1.85. It is clear that teachers are minimally confident in their ability to teach improvisation in any style.

**Figure 2. Means for Confidence in Teaching Improvisation (n=24)**

![Bar Chart]

*Note: JZIMPCNF = Jazz Improvisation Confidence, JZIMPMOT = Jazz Improvisation Motivation, NJIMPMOT = Nonjazz Improvisation Motivation, NSJAZMEL = National Standards Jazz Melodic Improvisation, NSNJMEL = National Standards Nonjazz Melodic Improvisation, NSJAZHAR = National Standards Jazz Harmonic Improvisation, NSNJHAR = National Standards Nonjazz Harmonic Improvisation*
Pre- and post-workshop ratings were compared to see if the vocal jazz students \((n=12)\) were more confident in their abilities to improvise and teach improvisation after a five-day intensive course. Results were positive (see Figure 3). Confidence in their own ability to improvise jazz increased 40% (from 2.0 to 2.8). Confidence in their ability to teach students to improvise original melodies over given chord progressions in jazz increased 57% (from 2.1 to 3.3). In nonjazz styles, confidence increased 24% (from 2.1 to 2.6). Confidence in their ability to teach students to improvise harmonizing parts increased 50% (from 1.8 to 2.7) for jazz, and 4% (from 2.3 to 2.4) for nonjazz. These results are especially heartening, indicating that summer intensive workshops can indeed increase confidence in the ability to improvise and teach improvisation. The next research step needs to be actual measurement of these abilities.

In an attempt to further examine the issue of the creative improvisation, all 24 students were asked, "In your opinion, what are the characteristics of a creative jazz improvisation solo?" Noteworthy responses included the knowledge of jazz style and chord/scale relationships, as
well as the following: "imaginative," "wears well," "has a bite to it... but provides the listener with a broader experience," "has a rise and fall of solo complexity and a climax," "uses silence as a major force," "heart," "soul," "more freedom, more feeling," "making it your own voice," and "confidence and conviction."

When asked what they thought enables a person to be a creative improviser, responses apart from the listening, imitating, transcribing and practicing of the particular style, included the following: trusting your instincts, knowing how you want things to sound, extensive and active experimentation, a "willingness to mix styles," "knowing the rules but not feeling bound by them," "knowing not only what to play but when less is more," "the ability to think fast" and "to anticipate what the other performers will do," "technical security and flexibility," "a unique sound," "a relaxed personality," "a strong ego," "a sense of adventure," "world travel," "bravery," "abandon," "a desire to be creative," and "dedication to perfecting their craft."

No matter what style of improvisation is to be learned, the research and practice seem to indicate that improvisation has both convergent and divergent thinking at play. Perhaps the degree of each varies, depending on the expertise of the performer and the style of the music. It may be that the improvisations of musical novices and of jazz experts are comparable in that divergent thinking is free to dominate. On the other hand, for the student who is in the process of learning a complex musical language such as jazz, more convergent thinking about the stylistic language may necessarily be at work.

Based on my previous research (Madura, 1996) into the predictors of, and my experience in the teaching of vocal jazz improvisation, I propose the following model of teaching improvisation in a particular style, regardless of whether it is classical, jazz, world or gospel music. The model may be thought of as a hierarchical guide in organizing improvisation experiences, but the categories may also be used simultaneously and/or interchangeably. The primary objective of the model is to illustrate the importance of organizing experiences that are both convergent (rule-following) and divergent (freeing) for the purpose of teaching stylistic improvisation as recommended by the National Standards for middle and high school students. Specific lesson ideas for each step can be found in Getting Started with Vocal Improvisation (Madura, 1999.)

**Exploration of Sounds (divergent):** As Kratus (1995) and Swanwick & Tillman (1986) suggest, students often begin by exploring their sound environment through experimenting with sounds. There are
many ways to guide sound exploration activities, such as using Schafer’s (1988) *Thinking Ear*, Johnson’s (1981) *Scores: An Anthology of New Music*, or any of the simple graphic scores available for music classes. In vocal jazz style, students enjoy exploring and imitating the various timbres of Bobby McFerrin. In world music, Indian karnatic singers or Irish mouth music can provide new and intriguing vocal sounds to explore. The purpose of this step is to realize the many possibilities of sounds that can be expressive to an individual.

*Listening and Accurate Imitation of Models (convergent)*: This step is paramount in the internalization of any style, and should occur with melodic and rhythmic phrases, patterns, and formulae in the style to be assimilated. Materials abound for efficiently learning jazz style in this way. If no teaching materials are available in a particular style, the teacher should find accessible and age-appropriate excerpts from recordings for the student to imitate. There is no substitute for immersion in the listening (both live and recorded) and accurate imitating of a particular style of music for effective improvisation in that style. A discography and bibliography for both jazz and nonjazz styles can be found in *Getting Started with Vocal Improvisation* (Madura, 1999).

*Call and Varied Response (divergent)*: While students are learning a particular style’s language through call and response activities, they should also be encouraged to consciously and analytically create varied, elaborate and original responses by changing one or more aspects (pitch, rhythm, sound quality, etc.) of the call. This will simultaneously reinforce both the necessity of rule-following and the value of rule-breaking.

*Study of Theoretical Materials (convergent)*: Because there are more and more sub-styles and fusions of styles evolving all the time, a theoretical study of a particular musical style enhances and makes more efficient the learning of improvisation. For example, a classically-trained pianist desiring to participate in the high school or college jazz ensemble could eventually learn through listening and imitating alone, but would save an enormous amount of time by studying and knowing such things as appropriate piano chord voicings, the 12-bar blues chord progression and blues scale, guide tones for resolving ii-V progressions and rhythm changes.

*Performed Improvisations (synthesis of divergent and convergent)*: It is a fact that scheduled performances motivate musicians to practice. The same is true for improvisation learning. Teachers should feature improvisations by students in every concert or class project. Each semester a student’s improvisations will sound more and more stylistically authentic.
Assessment of Creativity (synthesis of divergent and convergent): At every stage of the process, assessment of creativity should occur. Creativity questions such as the following should be asked of the student improvisers: Was the improvisation stylistically appropriate? What did you like about the improvisation? What made it interesting or exciting? What aspects could be varied to make it more interesting? What could be added or deleted to create more drama or suspense? Did you enjoy the experience? If not, what could you do to make the experience more of an expression of yourself? These questions will help develop musical creativity throughout the improvisation learning process.

It goes without saying that this model requires a music classroom that is encouraging and supportive of improvisation attempts so that student musicians will feel free to experiment and express themselves. However, there must be a careful balance between the expectation for convergent aspects and the encouragement of divergent aspects that will help effective improvisation occur. Only when the solo demonstrates true musicianship in both the knowledge and skill of a particular style balanced by variety, originality, freedom, heart, soul, and the joy of soloing will we know that we are on the right track in teaching stylistic improvisation.

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