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Hot for Teacher: Using Digital Music to Enhance Students' Experience in eLearning Courses

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Abstract

In this article, we describe the instructional potential of digital music to enhance postsecondary students' experience in eLearning courses by involving them in music-driven instructional activities. We describe how music-driven instructional activities can be used to (a) humanize, personalize, and energize eLearning courses by enhancing social presence through student-to-student interaction; (b) tap into students' interests, and elicit positive feelings and associations; and (c) involve students in relevant and meaningful student-to-content interaction by engaging them in active knowledge construction. Finally, we share several music-driven instructional activities that rely on digital music resources to engage students in generative, multisensory student-content interactions that leverage their interest in music.

What we call music in our everyday language is only a miniature, which our intelligence has grasped from that music or harmony of the whole universe which is working behind everything, and which is the source and origin of nature.

~ Hazrat Pir-O Murshid Inayat Khan (1882-1927)

Introduction

For many people, music is an essential, valued part of life (Colwell & Davidson, 1996), whether we hear it on the radio, stereo, Internet, or mp3 player, or listen to wind blowing through the trees. Music surrounds us, and is integral to our experience of the world and each other. From the dawn of time and for all societies, music has always been connected to significant events: weddings, rites of passage, funerals, seasonal/cyclical changes, religious venerations, agricultural activities, and so on (Blacking, 1995). It has also been used as a way to pass stories on from generation to generation and between cultures (e.g., the Iliad and Odyssey were poems often recited out loud to background rhythm and music). Music has also been used to support work—such as cadences used during rowing and marching, or the spirituals sung by slaves while working in the fields. Many of us can point to specific music that identifies who we are (as individuals, members of various communities, members of a family, and so on), or reveals a detail about ourselves that others rarely see. Further, whether we recognize it or not, music plays an important role in our learning and development (Campbell, Connell, & Beegle, 2007) as illustrated in the following vignettes:

- Years ago, I volunteered at a nursing home every other Sunday. Each day of the week, the director had an activity or event planned for the residents: flower arranging, drive to the mountains, ice cream social, and so on. Sundays were typically reserved for a musical performance. I consistently was struck by the power these musical performances had to help otherwise reticent individuals communicate with me and the other residents. Once the music would begin, it was like flipping a switch; they would tell stories, share information, laugh and express joyfulness, and connect with each other and me in deep and meaningful ways. On these Sundays, with the music stimulating long-term memories, I learned about the "Greatest Generation" from enthusiastic teachers. [Note: Quite a lot of research is being conducted on music and memory with Alzheimer's, dementia, and amnesia patients, demonstrating the persistence of music memory and how music provides access to other memories such as verbal knowledge. For example, see Baur, Uttner, Ilmberger, Fesl, & Mai, 2000; and Cuddy & Duffin, 2004.]

- As parents, we see how content often difficult for young children to acquire -- such as the alphabet, numbers, difference between left and right, parts of the body, multiplication tables -- is aided when that content is put to music or a rhythmic pattern. They jump up and dance, expressing the content with their whole body. The music provides a context that aids in memory. And, children perceive the learning that occurs via music as fun and engaging.
- During a guitar class prior to the last presidential election, the instructor challenged the class to compose a 12-bar blues to perform at an up-coming recital. The class decided to focus the lyrics on the political situation with each of us writing a verse. The challenge required each of us to not only clarify our understanding of 12-bar blues and the typical lyrical content and aesthetic of a 12-bar blues song, but to research the political scene to make sure we wrote relevant and accurate lyrics. Researching a topic we might otherwise not have studied, the song-writing and performance context enhanced our motivation to learn something new.
- After a death in the family and compiling a soundtrack that would be played during the memorial service, I realized how integral music was to all aspects of my past and present life. From that point on I compiled several playlists to capture different points in my life and my family's life. Not only treasured by me, family, and friends have embraced the playlists, and in kind shared their own. Through the sharing of our collective playlists, we have been able to celebrate and mourn together, and learn about each other (our thoughts, values, beliefs) in the process.

Music, as demonstrated in these vignettes, has the potential to humanize, personalize, and energize a learning environment or experience; elicit positive feelings and associations for learners; and engage learners in conceptual learning and knowledge construction. However, even with music's historical and societal context, and clear benefits for learning and human development, we have removed music as an instructional strategy from the postsecondary-education toolbox. The rise of Web 2.0 and social networking technologies, specifically those focused on digital music, provide new opportunities to integrate music into our courses. In this article, we describe the potential of digital music as an instructional tool in postsecondary learning environments -- specifically, eLearning courses -- and share specific instructional activities that use music as a catalyst for learning and development.

The Instructional Potential of Music in a Postsecondary eLearning Course

A-B-C-D, E-F-G... Now I know my A-B-Cs, next time won't you sing with me.

~ Popular children's song

In postsecondary instructional settings, music is a powerful, untapped instructional resource with the potential to humanize, personalize, and energize a learning environment or experience; elicit positive feelings and associations for learners; and engage learners in active knowledge construction. Further, as Weinberger (1998) points out, "music offers great opportunities for communication and expression, for creativity and yep it's good for the brain and can enhance learning and intellectual development" (p. 39). Music is fundamentally human with biological roots (Weinberger, 1998, 2004). It has been linked to memory (e.g., Balch, Bowman, & Mohler, 1992; Hickok, Buchsbaum, Humphries, & Muftuler, 2003; Snyder, 2000), speech and language acquisition (e.g., Hickok et al., 2003), intelligence (e.g., Rauscher, Shaw, & Ky, 1993; Schellenberg, 2005), emotion (e.g., Craig, 2007; Krumhansl, 2002; Sloboda & Juslin, 2001), and identity (e.g., Hargeaves, Miell, & MacDonald, 2002). In addition, music's potential to enhance students' learning and experience has been documented in a variety of P-12 classroom settings, including foreign language (e.g., Salcedo, 2002), humanities and social sciences (e.g., Stovall, 2006), English as a second language (ESL) (e.g., Griffiee, 1990; Murphey, 1992), and history (e.g., Cooper, 1979). Unfortunately, there is limited literature specifically addressing the effectiveness of music as an instructional strategy in the postsecondary classroom (let alone the postsecondary eLearning classroom); a few examples of postsecondary research include:

- In one study, college students demonstrated improved studying ability after listening to Mozart (Rauscher, Shaw, & Ky, 1993). This was called the "Mozart effect" in the popular press.
- Adult learners in South Africa, exposed to instrumental music during an intensive English course, showed benefits in language learning (Puhl, 1989).
- Another study showed instrumental music as an effective inspiration for writing activities in an adult ESL classroom (Eken, 1996).

Despite the limited postsecondary evidence, we have found that music provides a means in which to (a) humanize, personalize, and energize eLearning courses by enhancing social presence through student-to-student interaction; (b) tap into students' interests, and elicit positive feelings and associations; and (c) involve students in relevant and meaningful student-to-content interaction by engaging them in active knowledge construction -- three attributes of effective student engagement in an eLearning course.

Music and social presence

"Learning is a very human activity. The more people feel they are being treated as human beings – that their human needs are being taken into account – the more they are likely to learn and learn to learn" (Knowles, 1990, p. 129). From its inception, people have questioned whether students can be treated as human beings in eLearning courses. Critics argue that the supposed absence of social cues in eLearning courses interfere with the teaching and learning process (Berge & Collins, 1995). Despite reports of loneliness (Grubb & Hines, 2000; Robinson, 2000) and isolation (Bischoff, 2000; Ludwig-Hardman & Dunlap, 2003), eLearning can be social, personal, and humanistic (Lowenthal, in press).

Researchers of eLearning have argued that social presence—that is, the sense of another person as being “there” and being “real” (Short, Williams, Christie, 1976)—can be cultivated online (Gunawardena, 1995). And while everyone in an online course is responsible for establishing and maintaining social presence (Lowenthal, 2009), faculty have some additional responsibility to help establish and maintain social presence in eLearning courses (Anderson, Rourke, Garrison, & Archer, 2001; Gunawardena, 1995).

When we design and teach eLearning courses, we build in authentic and relevant opportunities for our students to interact, connect, and present themselves as real people (Dunlap, Dobrovlny, & Young, 2008; Dunlap, Furtak, & Tucker, 2008; Dunlap, Sobel & Sands, 2007). Students see these opportunities to socially interact and connect with others as foundational attributes of our courses. Further, research suggests that opportunities like these influence students’ perception of the overall learning experience (Richardson & Swan, 2003; Tung & Deng, 2006). As a result, we have been using music as one of a number of ways to help students interact and connect with each other.

While there is not specific research on music and social presence in eLearning courses, researchers have found that music can inform people about the presence and mood of others (Rocker & Etter, 2007, p. 2), provide a sense of presence in educational virtual environments (Robertson, de Quincey, Stapleford, & Wiggins, 1998), and increase people's perceptions about the social richness of a medium (Kallinen, 2004). Further, and perhaps most importantly, music can help promote social interactions (Panksepp & Bernatzky, 2002), specifically the types of social interactions that are needed to connect with others and be perceived as real in eLearning courses.

Music and interest

Sadly, students rarely relate fun and interest with formal educational experiences. We contend, however, that education can be fun and interesting and that music is one way to get students interested and thinking differently about the subject of their courses.

In John Medina's book *Brain Rules*, in which he describes 12 principles -- or rules -- for surviving and thriving at work, home, and school. Rule #4 is, "We don't pay attention to boring things" (Medina, 2008, p. 71). He goes on to explain how our attention is influenced by memory (using our previous experience to predict when we should pay attention) and interest (personally important and emotionally arousing events get our attention, and tend to be better remembered than neutral events). Research suggests that music is important to adolescents and gets their attention and interest (Campbell et al., 2007; Stovall 2006); "popular music has its own aesthetic and social values, that it has considerable potential to connect with the everyday lives of adolescents, and that the informal of making popular music, such as improvisation and group composition, could make the educational experience more stimulating and more enjoyable to adolescents" (Campbell et al., 2007, p. 222).

Adolescents, however, do not stop listening to music as they age (Voblikova, n.d.). Just as music helps adolescents "construct, negotiate, and modify aspects of their personal and group identities, offering them a range of strategies for knowing themselves and connecting with others" (Campbell et al., 2007, p. 221), music helps people of all ages express their individual identities (Hargreaves, Miell, & MacDonald, 2002, p. 1). Thus, music is important at every stage of human development (Campbell et al., 2007).

Integrating music into eLearning courses, especially by allowing students some control over and choice in the music used, gives students a chance to begin their new learning with something they are already interested in. Because the context of the learning or assessment activity is based on something they enjoy, they have a real interest in proceeding with the activity, and are intrinsically motivated to work on and complete the activity. Intrinsically motivated students (Kinzie, 1990) are more likely to be engaged in instructional activities because they have a desire and passion to learn, are willing to attempt more problems and solutions, and are focused on improving the problem-solving process (Condry & Chambers, 1978). Intrinsically motivated students will expend more effort on tasks and activities they find inherently enjoyable and interesting, even when there are no extrinsic incentives (Keller & Burkman, 1993).

Music and content interaction

The role and importance of interaction has been well documented in learning theory and research; it is the standard for student engagement and a critical component of learning experiences in both on-campus and

eLearning courses (Garrison & Anderson, 2003; Hannafin, Hill, & Land, 1997; Holmberg, 1993; Moore, 1989; Muirhead, 2004; Vygotsky, 1978). Interaction involves an event that takes place between the student and the student's environment, and its purpose is twofold: to change students and to move them toward achieving their goals (Wagner, 1994). Although much attention has been paid to the criticality of student-to-student and student-to-instructor interaction in eLearning courses, student-to-content interaction is equally important because it is the key way in which students acquire new knowledge, skills, and abilities (Northrup, 2001), changing students' understanding or perspective (Dunlap, Sobel, & Sands, 2007; Dunlap, Furtak, & Tucker, 2009). Student-to-content interaction is a defining characteristic of education since it is "the process of intellectually interacting with content that results in changes in the learner's understanding, the learner's perspective, or the cognitive structures of the learner's mind" (Moore, 1989, para 4).

Music offers a way to involve students in student-to-content interaction through generative learning activities -- by having students compile playlists, write lyrics, compose songs, perform songs, create music videos, and so on. These types of music-driven, generative learning activities require students to be responsible for creating, elaborating, and representing domain knowledge in an organized manner (Cognition and Technology Group at Vanderbilt, 1990, 1993; Hannafin, 1992; Scardamalia, Bereiter, McLean, Swallow, & Woodruff, 1989; Scardamalia & Bereiter, 1991). Through music-driven generative learning activities, students take an active role in forming new understandings through the application of learned content to the creation of musical products. This process of "generating" knowledge -- instead of passively receiving information -- helps students develop transferable knowledge structures, strategies, and skills (Grabinger & Dunlap, 1995).

Music-driven student-to-content interaction also involves students in multisensory learning, further supporting knowledge acquisition and construction. Richard Mayer (2001/2007), a cognitive psychologist who has done considerable research exploring the link between multimedia exposure and learning, has consistently found that students in multisensory (e.g., sight and hearing) learning environments do better than students in unisensory environments: students have more accurate and longer-lasting recall and improved problem solving. Regarding music specifically, Mayer conducted several studies on the use of irrelevant background music and sounds in multimedia presentations and found that it leads to poorer student performance on tests of retention and transfer (Mayer, 2001/2007); Mayer refers to this as the coherence effect. However, the results of this research do not hold for meaningful music-driven generative instructional activities; if the music -- and what students are asked to do with the music -- is relevant and in direct support of learning objectives, the results are very different as illustrated by the research citations previously presented.

Music-driven student-to-content interaction is an effective way to engage students in working with content because it starts with the music itself and the students' relationship with the music as part of their day-to-day experience in the world instead of with the new concept or activity. Music-driven instructional activities support students' construction of conceptual knowledge within a personally relevant and meaningful context, enhancing long-term memory and transfer.

Music-driven Instructional Activities

We don't need no education. We don't need no thought control.

~ Pink Floyd's *Another Brick in the Wall, Part 2*

Music is tightly woven into the tapestry of our students' everyday lives, aided by the rapid technological developments of anytime-anywhere-anything digital music access (Hargreaves, Miell, & MacDonald, 2002). In fact, the timing is perfect for integrating music-driven instructional activities into eLearning courses because of the advent of streaming digital music sites -- or internet jukeboxes -- such as Finetune (<http://www.finetune.com>), Songza (<http://www.songza.com>), and Blip.fm (<http://blip.fm>), and the availability of free digital music downloads to showcase new artists (e.g., <http://music.download.com/>) and creative commons licensed music for noncommercial or educational use (e.g., <http://creativecommons.org/audio>, <http://www.beatpick.com/>) (see Table 1 for a list of some of the more popular music sites and a summary of their main features).

In this section, we describe specific instructional activities that draw on Web 2.0 principles and tools and the patterns of behavior that are prevalent with social networking tools to support learning objectives and instructional goals in an eLearning environment. Used to fulfill both learning and assessment needs in our graduate-level instructional design and technology courses (although, colleagues in other areas of education, computer science, arts and media, english, geology, history, and public administration -- teaching at both the undergraduate and graduate level -- have recently adopted some of these strategies, and report positive results), all of these music-driven instructional activities engage students in generative, multisensory student-content interactions involving authentic cognitive processing (e.g., summarization, extrapolation, assessment, evaluation, application, creation) that leverage their interest in music while enhancing social presence. *Soundtrack of your life*

Most online courses begin with some sort of bio-sharing activity. In our experience, the bios students

share -- while informative -- can be dry, making the activity a slow, disengaging way to start a course. Instead, as a way for students to get to know each other in a more playful way, we ask students to share a set of 5-10 songs that represent the soundtrack of their life. With their soundtracks, we ask students to share a brief explanation of why each song is included. Alternatively, we have had students compile and share their playlists, and then encouraged the group to ask questions to ferret out why each student selected the songs she or he did. Finally, we use the shared playlists to consider the group's shared interests, differences, and so on (e.g., how many folks like jazz, or female songwriters, or sad songs). Through the playlists, students can learn the same information about each other as they would have during a bio-sharing activity (e.g., employment status, marital/family status, generational status). However, they do this learning in a playful and engaging way. It is interesting how much people feel they know about each other because of the shared playlists, with students reporting strong feelings of connection with their course colleagues after the *soundtrack of your life* activity. [Note: We participate in this activity as well, sharing our own *soundtrack of your life* playlists. It helps students learn more about us, and provides a foundation for fruitful and productive student-instructor relationships.]

What makes you rock?

As an alternative to the *soundtrack of your life* activity -- which entails sharing more than one song -- we have students go to an Internet jukebox site like Songza (<http://www.songza.com>) or LastFM (<http://www.lastfm.com>) and find a song that motivates them in some important way. The song could be something that they like to listen to at the gym or something they like to relax to at the end of a long day or a song that has an important memory tied to it. In addition to sharing the song, students provide a brief explanation of why the song is important to them. This can be done at the beginning of a course as an icebreaker but we have had better success using it half way through the course to help students reconnect with each other. The stories students share about the music tend to be more personal once they have spent a few weeks in a course with each other.

Setting the stage for learning

We incorporate music throughout our online courses as a prelude to a learning activity, during previews and reviews of content, to illustrate or represent a new topic, to celebrate the completion of a unit or project, to set the tone at the start of a synchronous class session, as a transition between units or topics, and to reflect a unit or course theme. We have found that students are open to and enjoy any selection of music as long as it contributes to relaxation, alertness, and openness, and does not include offensive or explicit language. We have found online digital music libraries that allow free downloads for noncommercial or educational use (such as <http://music.download.com/> and <http://creativecommons.org/audio>) to be a great source of music for setting-the-stage purposes. Alternatively, to ensure a variety of music is shared throughout an online course, we ask students to contribute their suggestions; this also gives them ownership over the course's soundtrack, engaging them in course planning and facilitation. Then, as the course progresses, we build a digital playlist -- using an internet jukebox tool such as Songza or Blip.fm -- that includes all of the songs students have suggested. At the end of the course, we provide students with the URL for the playlist. This gives students a living artifact of our time together, and a contextual reminder of the learning activities completed, learning objectives achieved, and friendships developed.

Concept-specific soundtrack

We involve students in a variety of soundtrack-creation activities in our online courses to fulfill both learning and assessment needs. For a concept-specific soundtrack, we present a course concept and then have students collect songs that offer insight and perspective on the concept. This activity works well as a unit or lesson starter because it immediately gets students involved with the concept in a fun and engaging way. And, the songs that they collect to represent the concept are often interesting grist for rich discussions about the concept (e.g., how the literature we are reading supports or contradicts the views expressed in the song, the possible circumstances that lead to the songwriter composing those lyrics, and how their own experiences are supported or contradicted by the song). For example, our students are in-service teachers, postsecondary educators, and corporate trainers and instructional designers. At the start of one of our courses -- where we explore effective learning experiences in formal educational settings, and what makes those experiences effective -- we launch the assignment by having students collect songs about school and schooling (such as *School's Out*, *We're Going to be Friends*, *Be True to Your School*, *Hot for Teacher*, *Rock and Roll High School*, *School Day*, *My Old School*, *Another Brick in the Wall Part 2*, and so on). We compile all of these songs into one playlist using an online digital jukebox tool such as Songza.com or Blip.fm. Then, referencing the lyrical content of the collected songs, we discuss what the songs tell us about the experience of school -- the good, the bad, and the ugly. Variation: A variation to this soundtrack-creation activity is to present students with a predetermined set of songs (e.g., a playlist of five songs) and have them determine what the songs say about the concept. Using the course readings, lectures, and activities, as well as their own prior knowledge and

experience, students can then engage in a discussion about the concept; they can describe what the songs accurately and inaccurately represent, what cultural-historical perspectives are reflected, what actions they would take to change the views expressed by the songwriters, and so on.

Representational soundtrack

We use representational soundtrack activities for both learning and assessment purposes in our eLearning courses. A representational soundtrack is where we present students with a word (e.g., power), emotion/state-of-mind (e.g., confidence), historical event (e.g., the Gettysburg Address), or a personal event (e.g., when they felt like they had really succeeded at something) related to the topic or concept we are studying, and then have them locate and share a song that represents that word, emotion, or event. Students include an explanation of how and why the song represents that word, emotion, or event for them, supported by the course readings and their prior knowledge and experience; if we use this activity for assessment purposes, we assess the quality of their explanation. Alternatively, students can engage in a 20-question activity to discern why each student selected her or his song. We compile the songs into one playlist using Songza or Blip.fm, and then often use the playlist to stimulate online asynchronous and synchronous discussions; for example, we would take the playlist of songs that represent confidence and discuss what insights the collection of songs provide us about what builds people's confidence, and as educators what we can do to enhance our students' confidence. A representational soundtrack activity can be used when launching a new topic to discern what students understand (or not) about a topic, during a lesson or unit for formative assessment purposes, or at the end of a lesson or unit for summative assessment purposes.

Knowledge-comprehension recital

We primarily use the knowledge-comprehension recital activity for summative assessment purposes. For this activity, we have students (a) select a popular song and rewrite the lyrics or (b) write an original song (everyone can write lyrics for a 12-bar blues, after all!) to reflect a topic or concept we have been studying in the course. To perform their songs, we have used two strategies:

- 1) Students use an easily accessible Web 2.0 tool -- such as VoiceThread (<http://www.voicethread.com>), Jing (<http://www.jingproject.com>) or open source tool like Audacity (<http://audacity.sourceforge.net/>) to record their new song. Then, students post their songs for the class to enjoy and learn from.
- 2) Students perform their songs "live" using a synchronous conferencing tool such as Adobe Connect (if the institution has a license, as ours does) or freely-available Web 2.0 tool such as Skype (<http://www.skype.com/>).

For assessment purposes in either case, we care less about the quality of the performance (for example, many students choose to sing or speak their lyrics over the original soundtrack), focusing our assessment attention on the quality of their understanding of the topic or concept based on their lyrics.

[Note: In spring of 2008, the Discovery Channel launched their "I love the [whole] world" advertising campaign. The campaign features a revised version of the traditional "I love the mountains" camping song with a distinctive chorus of "boom-de-ya-da, boom-de-ya-da". After the campaign launched, several people started to create their own Boom-De-Ya-Da songs with videos and posted them to YouTube (see http://www.youtube.com/watch?v=at_f98qOGY0 for the original Discover Channel advertisement with over 150 video responses from all over the world of other people's Boom-De-Ya-Da songs). A more demanding activity because it requires a high level of technology proficiency, the Boom-De-Ya-Da format is an appropriate alternative to the knowledge-comprehension recital, encouraging students to not only share their songs locally (with their eLearning course colleagues) but globally via YouTube or other online video sharing site (e.g., <http://www.vimeo.com/>).]

Music video

Related to the knowledge-comprehension recital activity described above, we also have students create music videos to demonstrate their understanding of course topics. There are several ways to have students create music videos, but here are two strategies we have found consistently effective:

- 1) We provide all of the students with the same song, and ask them to present an interpretation of the song (on their own or in small groups) that reflects a specific course topic using 10-20 images of their choice; we encourage students to take their own digital photos, but allow them to use stock photos as long as they have acquired permission. We like this version of the music video activity because it allows students to see all of the different ways a song can be tied to a topic, illustrating the range of perspectives and applications of the topic to the world outside of the eLearning course.
- 2) We ask students (on their own or in small groups) to create a unique music video to illustrate

a particular course topic using any song and a set of 10-20 images. For example, if we were teaching a course on language, literacy, and culture, we would ask students pick any song, but then create a music video that illustrates the concept of diversity.

As with the knowledge-comprehension recital, our assessment focus is on students' understanding of the topic. Therefore, we encourage students to use easy-to-use, readily accessible tools to create their music videos, such as VoiceThread, Jing, and even commercial tools like Microsoft PowerPoint. Their music videos can be shared locally within the eLearning course, or more globally using social sharing sites such as YouTube (<http://www.youtube.com>), Vimeo (<http://www.vimeo.com>), SlideShare (<http://www.slideshare.net>), and SlideBoom (<http://www.slideboom.com>).

[Note: Students may not know or understand the legal ramifications of music sharing. Therefore, we discuss these issues with students when we embark on a music-driven instructional activity, and explain how they can go about gaining permission to use free, royalty-free, and purchased music for educational and noncommercial purposes.]

Conclusion

I think of all the education that I missed.

But then my homework was never quite like this.

~ Van Halen's *Hot for Teacher*

While working on this article, we have been inspired by listening again to the *soundtrack of your life* playlists created by students in our eLearning courses. The various playlists bring back vivid memories of our time together and all that students accomplished, and we feel that we know our students more fully because of the music-driven instructional activities completed during the courses. According to end-of-semester course evaluations, students consistently find these activities highly engaging and a highlight of their eLearning experience. Anytime-anywhere-anything digital music resources available via the Internet have made it possible to effectively integrate digital music to (a) humanize, personalize, and energize eLearning courses by enhancing social presence through student-to-student interaction; (b) tap into students' interests, and elicit positive feelings and associations; and (c) involve students in relevant and meaningful student-to-content interaction by engaging them in active knowledge construction.

Although some students may be turned off by music-driven instructional activities for a variety of reasons and we recommend conducting a thorough front-end analysis with learner assessment to determine appropriateness for your specific audience, we have found that because of music's universal appeal, most students see music-driven instructional activities as fun and interesting, enhancing their motivation to participate, contribute, and learn. Although maybe not quite "hot for teacher," music-driven instructional activities using online digital music resources enhance students' eLearning course experience by engaging them in generative, multisensory student-content interactions that leverage their interest in music. Bravo!

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