Chapter 28
Creating Authentic Assessments for Online Music Courses:
Mapping a Learning Task

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ABSTRACT

The need for identifying authentic assessments, or learning tasks, in online music courses is becoming integral as the rate of online music course offerings has been exponentially increasing. Supportive research also suggests that instructors teaching in higher education may require a paradigm shift in their pedagogical approach as they develop social-constructivist based authentic assessments for music subjects taught in an online environment. To assist with the understanding of both why and how to generate authentic assessment for a Bachelor's-level online music course, the chapter explores the nature of authentic assessment for music and Koh's Criteria for Authenticity in Authentic Assessment. Finally, to provide a practical exemplar of how online discussions can be used as an authentic learning tool in the online music class, an online discussion task for a songwriting class is identified and examined through the lens of Koh's characteristics.

INTRODUCTION

The need for identifying authentic assessments, or learning tasks, in online music courses is becoming essential as the rate of online music course offerings has exponentially increased since 2012 (Johnson, 2017b). Supportive research (Johnson, 2017a) also suggests that professors teaching in higher education may require a paradigm shift in their pedagogical approach in order to effectively integrate social-constructivist based authentic assessments for teaching music online. To assist with the understanding of both why and *how* to generate authentic assessment for a Bachelor's-level online music course contextualized

for songwriting students, the literature provided here explores the nature of authentic assessment for music, and highlights Koh's (2017) *Criteria for Authenticity in Authentic Assessment*. Finally, to provide a practical exemplar of how online discussions can be used as an authentic learning tool in the online music course, an online discussion task for a songwriting class is identified and examined through the lens of Koh's (2017) characteristics.

BACKGROUND

Understanding how students learn to read and perform music is fundamental to developing well-structured learning content and scaffolded learning activities. In the case of the online discussion explored here, students are completing activities that are scaffolded to teach them how to listen for musical features, identify them, and then explore how they relate to past styles of popular music. With the knowledge of how music learning occurs, instructors can become better equipped to develop objectives, course deliverables, and evaluations effective in meaningful music performance outcomes. The following sections on learning music at the post-secondary level explore the influences on how students learn music, the importance of addressing praxial music learning and constructivism when designing online music courses, and the bridging of classroom learning to practical skill.

Influences for Developing Music Understanding and Skill

Music was recognized as a developmental skill in knowledge acquisition in early writings of ancient philosophers. For example, Macrobius' Commentary on the *Dream of Scipio* and Plato's *Timaeus* contains references to the important connection of music to the mind and body. Cognition was viewed to have strong links to music. More specifically, Plato's *Republic* references music training as a "more potent instrument than any other" (Plato, 1970, p. 401) as it can directly impact one's action. Further support for the important association of cognition and learning, Rose and Meyer (2002), posit that the recognition, affective, and strategic networks of the brain assist in our understanding of learning the "what," "why," and "how" of learning tasks and actions. The science of learning music and general learning pathways are no longer philosophical ideals.

Knowing how we learn music and how we create knowledge can provide a stronger understanding for designing online music courses. For example, research by Halpern and Zatorre (1999) suggests that right hemisphere function is integral for perception and image-based tasks (e.g., reading music for performance). Furthermore, scholarship on brain research has explored the human aspect of music processing to identify brain areas that can be activated by particular musical tasks (Peretz, 1990). From these points of research, we can understand that designs for music learning need to have context-appropriate visual images, active music listening, and musical tasks woven into the online music course area.

Through the psychological perspective, Maslow (1943) identified five different hierarchical levels of motivation. Maslow's motivation hierarchy supports online learning research in motivation - the hierarchal levels two through five; individual feelings of security, forming relationships, and experiencing feelings of accomplishment display clear connections. Various researchers (Lin, Young, Chan, & Chen, 2005; Dabbagh & Bannan-Ritland, 2005; Wilging & Johnson, 2004; Tyler-Smith, 2006) have contributed studies that connect online learning design with student motivation in online learning. Heeding Hebert's

(2007) caution regarding the challenges of online music courses, faculty members informed in online learning design can benefit student outcomes by addressing student persistence and student satisfaction.

The idea of "deep" learning, as opposed to the limited surface form of learning, is nothing new in the field of education. When we consider the learning taxonomy created by Bloom, Englehart, Furst, Hill, and Krathwohl (1956), we are cognizant of how this taxonomy developed from a list of activities in which the human brain could engage. Bloom et al. (1956) identified the affective domain as the connection where learners respond, value, organize and characterize their learning based on attitudes and personal feelings. Understanding how psychomotor learning skills are organized within their complex actions was furthered by the work of Simpson (1972) and Harrow (1972). Further learning research indicates that the integration of the cognitive, affective, and psychomotor domains purports varied levels of meaning and learning depth for the individual. For example, Anderson et al. (2001) describe learning through a revision of Blooms' Taxonomy (Bloom et al., 1956; Krathwohl, Bloom & Masia, 1964). Accordingly, they describe cognitive learning as a hierarchy of six stages: remembering, understanding, analyzing, applying, evaluating, and creating. Together, these learning connections enable a music student to listen, read, interpret, and perform individual music skills.

The initial activities in this list (i.e., remembering and understanding) were the impetus to the framework for categorizing educational goals: Taxonomy of Educational Objectives. As such, the taxonomy is now accepted as a taxonomy of types of activities that range from surface learning, to deeper meta-cognition. At the surface, or basic level of learning, we find students simply remembering information they have learned. Not to be overlooked, this foundational accessibility to rote memory is necessary for students to engage in the discipline's vocabulary, and begin surface exploration. Moving higher up the taxonomy, we find students constructing and experiencing learning through understanding, applying, and evaluating what they have learned. That is, students have built upon the basic nomenclature of the discipline and are required to demonstrate a more developed display of knowledge and skills within a particular context. At the peak of the taxonomy (i.e., applying and evaluating), students have the ability to use what they have learned, and can demonstrate that learning through a creative display that highlights their interpretation of the knowledge (Anderson et al., 2001). Therefore, having music students demonstrate their learning through a creative learning task becomes an integral outcome for an online music course.

Building content modules and course structures for the purposes of more than remembering and understanding skills can further connect students with opportunities for personalization of learning. For example, research findings by Eakes (2009) suggest that a sociocultural-based music appreciation course content had a significantly stronger effect on learning (p < .001) when compared to chronological content teaching of the same course in both online and face-to-face formats. From this context, providing students with opportunities of personalized learning promotes "deep" learning, as opposed to the shallow framework of memorization.

Aesthetic and Praxial Learning

The context of music learning is differentiated by both aesthetic understanding (Reimer, 1989a), and praxis (Elliott, 1995). While aesthetic learning holds value for music appreciation and nominal learning constructs, praxial understanding of music assists in the pragmatic application of music performance. Akin to the lower developmental levels of the Bloom taxonomy (i.e., remembering and understanding), students require procedural knowing before being able to fully engage in music. Such procedural knowing includes both music vocabulary and musical forms of which many students entering a bachelor of music

program may or may not already have learned. Additionally, the spectrum of students in a program (e.g., performance majors, song writing majors, or music education majors) will also evidence a continuum of procedural knowing of music. For example, many songwriting majors are less familiar with basic musical vocabulary, yet they may be more informed, and more concerned, with the output performance of their music. This type of familiarity would align the praxial leaning of David J. Elliott. In his 1995 book, *Music Matters: A New Philosophy of Music Education*, Elliott states, "What music is, at root, is a human activity… Fundamentally, music is something people do" (pp. 39-40).

To surface the "root" of music, and the developmental continuum of performance, Elliott (1995) defines four elements of music knowledge that create musicianship: formal, informal, impressionistic, and supervisory. The initial "formal musical knowledge" is a procedural knowledge of sorts. It is the awareness of sounds and the non-active aspect of music knowing. Building on this layer, Elliott describes informal music knowledge as the knowledge gained by personal behaviors, or performance, and establishes the aspect of personal music reflection. The third layer, impressionistic musical knowledge, hinges on the intuition of the musician and his or her cognitive emotions – music performance at this level goes beyond a mere reading of musical notes and suggests the musician performs music with personal interpretation of the music. The final level of supervisory knowledge is established at the meta-cognitive state wherein the musician is able to adjust, monitor, and manage musical thought and action in longevity (Elliott, 1995).

Learning Domains

When building an online music education environment, it is important to consider the various constructs found in the traditional domains of cognition, which include affective and psychomotor as noted by Morrison, Ross, and Kemp (2006). Additionally, one should also consider the levels of musicianship required for the performance tasks as addressed previously addressed in the literature by Elliott (1995). Regelski (2005) further suggests that instructors also participate in the cognitive thinking of music, thus modeling for the students the vocabulary necessary to hear specific musical devices, as well as how to trace them back to their earlier uses in music history.

In the context of developing assessments within a course design, the affective domain (i.e., identified by Morrison et al., 2006), is not only how the musician feels about their own music, but also how the other students in the class experience it. The psychomotor realm is often confined to one or two instruments the student has mastered to the extent that their music requires in terms of skill level. Given these important contexts, instructors should be aware that psychomotor skill levels can vary greatly among students in a single class. Such diversity of student skill has ramifications on how a learning task is introduced and scaffolded into the overall learning content found in the course.

Constructivism

As outlined in the previous section, learning music in the online environment requires both the development of cognitive knowledge and practical skill(s). Developing learning tasks that address both of these integral components involves an understanding of how we construct our knowledge and how we transfer that constructed knowledge into practical, music performance skills.

Jonassen (1992) suggests that,

Constructivism is concerned with how we construct knowledge from our experiences, mental structures and beliefs that are used to interpret objects and events…. Constructivism holds that the mind is instrumental and essential in interpreting events, objects and perspectives on the real world, and that those interpretations comprise a knowledge-base that is personal and individualistic. (p. 139)

Constructivism is a complex learning theory. It involves our past learning experiences and how we build upon those past experiences to acquire new ideas and skills. Constructivist outcomes concern the learning changes one experiences (Tam, 2000), its importance for application in music education, (Webster, 2011) and online music education research (Kassel, 1998; Benedict, 2009; Benedict, 2012). One of the lead contributors to the development of constructivist theory and its alignment to learning, Lev Vygotsky (1978) suggested that learners learn from each other and thereby create *social constructivism*. The inclusion of purposeful learning through social interactions have influenced many aspects of learning, including the furtherance of individual psychological development (Vygotsky, 1981).

The understanding of social constructivism for learning in education also provides insight into cognition. In particular, Bandura (1981; 1993) furthered social constructivist theory and examined the influence of social cognitive development on learning. Further, Freire (2000) suggested the use of inquiry-based learning to illicit further connections for learners to construct their knowledge. Building upon the importance of connections, Siemens (2006) describes 21st century learning as using networks for connecting learning, and thereby termed "connectivist." Together, this research suggests that when creating an effective learning environment, and therefore the learning tasks within this environment, instructors need to involve tasks that use social constructivism in the development of students' understanding, knowledge, and skill.

Seeking to explain the 21st century concept of learning through online social connections, Brown and Adler (2008) suggest that social learning "…is based on the premise that our understanding of content is socially constructed through conversations about that content and through grounded interactions" (p. 18). This explanation can be understood as integral in the design and structure of online activities and projects.

IMPORTANCE OF AUTHENTIC ASSESSMENT

The following section addresses the importance of assessments that are authentic. That is, authentic assessment addresses students' knowledge and skills within the boundaries of the content being explored, and assesses students through tasks that are appropriate for the learner and their learning contexts. This section explores the importance of authenticity in assessment and how assessment frameworks can be integral resources for creating learning tasks that are relevant for the discipline of music in an online learning environment.

Defining Authentic Assessment

Assessment considers two levels: what will be assessed (i.e., a boundary of content) and how it will be assessed (Gikandi, Morrow & Davis, 2011; Jonassen, 1992; Sadler, 1989). Assessment tasks can often be described by two design approaches: conventional and authentic. Conventional assessment focuses on objective measurements and achievements often associated with conventional standardized testing and final course scores. Limited by responses that are finite (i.e., closed-responses), these high-stakes

assessments limit students' opportunities to demonstrate a scaffolding of knowledge, a problem-solving skill to find a particular answer, or bounded formula. Such assessments are inherently built for large-scale comparison rather than development of student competency of skills (Koh, 2017). Comparatively, authentic assessment, as initially described by Wiggins (1989), provides opportunities for students to demonstrate their knowledge and skills within a particular learning context. By way of open-ended tasks, authentic assessments support higher-order thinking skills through a balanced inclusion of both individual and collaborative tasking through practical experience.

Supported by Dewey's constructivist and experiential learning methods (1938), authentic assessment provides students with scaffolded learning opportunities prior to the assessment. These learning opportunities build upon each other and move students towards higher-order thinking skills with the goal of developing innovative and creative knowledge as well as skills capacities specific to a real-world context. Brown, Collins, and Duguid (1989) further suggest authentic learning happens within situated (i.e., disciplined-dependent) learning contexts. Given this scope, and music's inherent link to social contexts and the overall culture within the music discipline, music learning is effectively moored in social learning theory (Bandura, 1981). Additionally, various music researchers including Keast (2009) and Green (2014), support music learning through a social constructivist experience. They suggest it gives gradations of co-constructing music knowledge with others in addition to its practical experience. Given these contexts, it is posited that apprenticeship is part of the design for authenticity in music learning. That is, authentic assessment for music learning should be aligned with an experience that allows students to have apprenticeship learning through interactions with instructors, peers, and music content.

Apprenticeship learning in music (Green, 2014) is a foundational element of traditional music learning (i.e., face-to-face teaching). It is based on the premise that students progress in their music learning through graduated processes and authentic assessments. In music, this is often experienced through graduated learning processes that guide students from observation of an expert (i.e., modeling in apprenticeship) to the student emerging with full adoption and demonstration of expert knowledge and skills. At a meta-level, the student has moved through an apprenticeship model by learning through an expert(s) mentoring the student from beginner to advanced levels of musicianship. At the more micro level, the student has learned specific musical skills. An example of a micro level skill may be manipulation of chordal progressions cannot be secured without a prior knowledge of sequential scale progressions which is supported by rote knowledge of music nomenclature.

Authentic Assessment in Online Music Courses

In meta-studies (Tallent-Runnels, et al., 2006), the online environment has been proven to provide an equal, if not better, platform for student learning. However, like its face-to-face predecessor, it is the design of the online learning experience that gives rise to the outcome of student learning. Design of the online learning experience also pertains to the overall integration of teaching presence (Garrison, Anderson, & Archer, 2001). In brief, teaching presence signifies the what, how, and when of learning. That is, teaching presence involves what students will learn, how the learning is outlined or scaffolded, and the timeframe for which the learning occurs. Design that is attentive to teaching presence provides effective learning experiences is the successive nature of learning design, (Wiggins & McTighe, 2005) and the multiple ways for students to interact with learning (i.e., Meyer, Rose, & Gordon's 2014 writing on Universal Design for Learning).

Universal Design for Learning (Meyer, Rose, & Gordon, 2014) research suggests that students should have multiple ways to demonstrate their learning. Consequently, an online music course should allow for students to co-create and interact with content knowledge through means of text (i.e., lexicon), audio (i.e., hearing and listening), graphics (i.e., visual representation), and video (i.e., simultaneous audio and graphic means). Combined with the understanding that an authentic assessment is created within an open-ended learning context so that students can bring in real-world experiences, authentic online assessments for music students should provide students with opportunities to demonstrate their knowledge and skills in collaboration and in multiple ways. Such assessment examples could include video presentation and/or projects, music performance portfolio development, written (i.e., text-based) articles or papers, digital project development, and oral presentations.

One type of deliverable in the online environment that allows for students to include and share these varied assessment examples is the online discussion forum. Often used as a text-based activity, online discussion forums allow students to go beyond sharing text-based content and create knowledge content and share their ideas through video, hyperlinks, graphics, and audio to their peers. The creation of an authentic assessment that uses the online discussion area will be explored in the next section.

AUTHENTIC ASSESSMENT IN ONLINE DISCUSSIONS FOR MUSIC

Student learning can be supported when assessments are connected to student motivation and engagement. Molenda and Perishing (2008) suggest the following: create targeted course materials to decrease time wasted on marginal learning materials; focus on efficiency of teacher training; and use the appeal of design and instruction to increase student time on task and student motivation. The researchers also suggest that such connections help develop an understanding of authentic learning that promotes deeper thinking on various intellectual levels of engagement. Furthermore, Chaney et al. (2007) suggest that student motivation also comes from the student having access to technical support, as well as assignments that can be personalized and contain clear directions and expectations. From this research, it can be understood that motivation and engagement are integral for developing authentic learning experiences for students. How students reach levels of motivation and engagement are achieved by way of type of learning conveyed to the student and how that learning is transmitted.

Social Presence in Authentic Assessment

The role of the learning community cannot be dismissed. Providing students with opportunity to participate in discourse with peers and experts provides opportunities for students to have additional connections to motivation and engagement. Research further suggests that learning theory has connections to the development of online social communities (Brook & Oliver, 2003). This is further substantiated through Salavuo's (2006) research on the creation of online communities. Here Salavuo suggests that the development of online communities assists musicians with making connections to further their creative musical pursuits within a niche community. Together, we can see that student learning is built upon the development of authentic learning that allows for communication exchanges that are linked to student motivation and engagement.

The experience of social presence can be described as the opportunities and communication tools students use to connect their thoughts and ideas within the online course structure. Research and models

focused on online social presence (Garris, Ahlers & Driskell, 2002; Oztok & Brett, 2011; Swan, 2001; Twigg, 2004) can be helpful in establishing the foundations for online courses to utilize specific communication tools and design strategies that trigger motivation through online social connections.

Social presence is further defined as the interactive element of collaborative communication in an online learning environment (Arbaugh et al., 2008) and the extent to which the learner feels or knows that there are other learners in the online environment (Leong, 2011). With an understanding of human motivation, research in online learning can lead to comparisons and contrasts between the traditional learning model of face-to-face instruction with online learning. Specifically, it affords online students to experience a social connection with computers for learning effectiveness (Hannum, 2007).

There are a number of instructional design elements that should be considered when seeking to develop social presence in an online course: social communication assists with purposeful learning (Baker & Woods, 2004); an online course community can develop into a group identity (Akyol & Garrison, 2008); disrespectful actions or inequalities within an online community are negative learning communities (Linn & Burbules, 1993); and sustainable learning is created by action-oriented collaboration (Carlen & Jobring, 2005). Furthermore, a research study by Leong (2011) posited a significant relationship of student interest on student satisfaction with an indirect influence by way of cognitive absorption (i.e. positive 0.54 influence). The study also revealed that social presence had a non-significant effect on satisfaction. Rather, social presence was found to have had an influence on cognitive absorption which influences satisfaction (Leong, 2011). Based on this information, it becomes apparent that an authentic assessment has opportunity for students to exchange ideas and dialogue with each other to better enable cognitive learning.

Online Discussions as Authentic Assessment

Using the previous literature, we can see that authentic assessment addresses the various learning domains of the students and is upheld through social presence in the online environment. Based on these parameters, online discussion forums can be appropriate tools for designing an authentic assessment. According to Kanuka, Rouke, and Laflamme (2006), online discussions that are structured, definable for the student, and "explicitly confront others' opinions" (p. 260) promote cognitive engagement. Noting that cognitive engagement is dependent on the instructor's prior purposeful evaluation of each discussion question posed (Moore & Marra, 2005), instructors can create questions that specifically encourage social or cognitive engagement within their courses.

Various technology tools in the online environment communicate course design and influence authentic assessment. Research by Kocuglu & Koymen (2003) suggest that increased creative thinking occurs when students engage in multimedia (i.e., video, podcasts, webinars, etc.). This suggestion is narrowed in scope with regard to research by Mayer, Heiser, and Lonn (2001). They posit that off-topic multimedia can disrupt higher-level learning. In light of this caveat, one should develop focused multimedia that incorporates higher-level cognition to engage learners' ideas along with encouraging viable constructivist applications. These tools are the vehicle for students to receive and send learning ideas.

Specific tools are integral for developing authentic learning exchanges. That is, students need tools that help facilitate effective communication with their instructors as well as provide means for developing community within the student group. Synchronous or asynchronous communication tools allow for "sharable artifacts and include email, discussion boards, online chat applications, slide shares, etc." (Wideman, 2010). These artifacts can be reviewed at a later date for student review or further learning.

Tallent-Runnels et al. (2006) suggest that communication tools, such as blogs and online assignments, provide students with activities that can facilitate further learning and critical thinking while engaging students in community. Knowing what communication tools are available for use in an online course context helps further the authentic learning experience felt by students.

Online discussions are visible communication threads utilized by both students and instructors for participants to read and make contribution to through a closed-application system such as a learning management system (i.e., Moodle, D2L or Blackboard). A discussion area can also be used to assist students in self-reflection using guided questions (Greene & Land, 2000). This activity of self-regulation helps student monitor the effectiveness of specific objectives, activities, and skill learning (Zimmerman, 2002) and connects to Elliott's (1995) level of informal music knowledge. Schunk and Zimmerman (1994) further posit that the use of such self-reflective practice helps students to monitor their learning needs and strategies within a constructive learning environment.

As we continue to explore how to create authentic music assessment through online discussions, it becomes integral to have some type of framework that isolates specific characteristics or traits that support and define authentic assessment. In her approach to gathering authentic assessment characteristics in teaching and learning research, Kim Koh (2017) compiles characteristics inherent in authentic assessment. According to Koh's compilation of scholarly descriptions, an authentic assessment is one that provides students with: 1) real-world relevance; 2) application of skill transferability in new contexts; 3) discipline-specific, deep learning engagement; 4) practical opportunities to experience new knowledge and receive critical formative instructor feedback; 5) "multiple evidences of student performance over time" (p. 7); 6) a transparent and explicit scoring system; 7) self-assessment as a "pivotal role" (p. 7) in the assessment; and 8) evidences for "reliability or defensibility of teachers' professional judgment or scoring of student performance" (p. 7). With attention to these eight elements as overarching tenets, the following section will examine how online discussions give rise to an authentic assessment within the discipline of music learning.

DESIGNING AN AUTHENTIC LEARNING TASK: AN EXAMPLE

The following sample project explores the detailed construction and implementation of an online learning task as authentic assessment. It purposely uses the discussion forum to integrate multiple forms of assessment tools and approaches. For example, peer review as an authentic assessment and instructor dialogue as formative assessment are integrated prior to the final subjective assessment. Written in first person by Dr. Virginia Lamothe, this project provides a starting point for dialogue on ways for instructors to explore their current assessments. The *Discussion* section follows the sample and highlights how the project is aligned to authentic assessment criteria defined by Koh (2017).

Learning Task Context

I teach an online class for songwriters (i.e., bachelor of music students who are majoring in songwriting). In this class I use an authentic task that spans the entire length of the semester to help students understand and utilize musical features of popular music, and understand the history of how those features were used and changed over time by songwriters. The project task has multiple components and is cumulative. This five-phase task begins in the discussion forum area, and expands to use social media (i.e., SoundCloud)

for original song recordings. The final phase of the project includes a SoundCloud podcast assignment. Students majoring in songwriting should have the opportunity to practice skills that they would use in their future careers. Therefore, an important component of the project is the discussion forums in which students participate for the discussion of ideas. These discussion forums and the subsequent stages of the project must be carefully scaffolded by the instructor so that each student moves along a series of "steps" in order to achieve the self-reflection, objective discovery, and critical thought needed to create the practical application in the creation of their podcast.

Because the discussion forum asks questions related to career-related skills, students tend to view their work in the forum as necessary and important, as opposed to the ages-old complaint of "busy work" all professors have come across at one time or another in student evaluations. The atmosphere in my classes is one in which the students are acknowledged by their career first, and their student status second. For example, I do not call my songwriters "songwriting majors." Nor do I call my music educators, music therapists, or performers "music education majors, etc." I find this helps create the atmosphere I want in my class that focuses on authentic tasks because the real-world career is always seen first. As such, my students participate in class and behave in a way that shows their determination and enthusiasm as they hope to succeed in their field.

Phase-One: The Stages of Listening, Analyzing, and Discussing

To begin the semester project, I create a discussion forum in which I invite the students to begin their work by asking themselves a series of questions. This is the project's first phase and first stage: Listening. Questions students must consider can include: "Which musical features do I tend to listen for in order to classify a song as 'blues music'?"; "Am I always aware of the different types of blues music that were created between the 1910's and the 1940's when I listen to blues music?"; and "How do I become aware of these different types?". Subsequent questions focus on the comparison of different types of blues styles studied. Possible questions during this second phase of the task explore: Which musical features do classic, country, and electric blues have in common? Which musical features do they not share? Which other features outside of the music help define a blues song, or might help categorize it into one of these types? I request that the students limit their answers to only two examples so that other students may contribute to the discussion with further, more diverse answers.

Finally, the third stage of phase one focuses on discussion. I challenge the students to read a primary source about the sound of blues music as W. C. Handy first encountered it. This source was written while waiting for a train at the Tutwiler rail station circa 1903 wherein he describes the appearance of the singer, his guitar technique, the lyrical form of the song, and finally the "weirdest music" he had ever heard (Handy, 1941, p. 74). After reading this short excerpt from Handy's autobiography, I ask each student to write a critique. In their own words, students are required to critique Handy's description by either defending his limited vocabulary of "weirdest music" due to his unfamiliarity with the music, or judge his words based on race and class distinctions (i.e., Handy was a successful businessman from a more northern, urban area with a high level of education, and the unnamed man was an itinerant, poverty-stricken man with little education). I proceed with questions that explore why they believe hearing this unnamed man's song, which Handy described as "Goin' Where the Southern Cross the Dog," was pivotal for his career. Pivotal to the point that he became known as "The Father of the Blues" through his lifelong commitment to seek out blues songs and his subsequent prolific publications of blues arrangements. The answers to this question vary as each student personally evaluates the story of W.C. Handy and the

540

unnamed singer he encountered. However, the students' discussion posts are only the first phase in this authentic task. The students know that in order to score full credit on this starter portion of the semester project, they must comment on at least two other students' threads in the discussion. They can argue with comparisons of blues styles, or they can take a stand that is similar to, or different from those of the other students on the way they view the story of W. C. Handy.

The idea of having discussions about musical styles, features, and history does not end here with early blues. The students complete three further discussions on psychedelic music, funk, and pop before the end of the semester. Like the initial blues discussions, the additional three discussion phases provide students with opportunities to apply, analyze, and evaluate ideas for themselves and for each other. These discussions are the building blocks for the final project task: the creation of an original musical work and placement on SoundCloud.

Phase-Two Through Five: Using Developmental Learning

The second phase of this multi-faceted project comes in the form of a short writing assignment that is shared as another discussion forum within the Learning Management System (LMS). Each student writes a song, or thinks about a song they have recently written, in terms of the song's musical features. I use prompts such as "imagine" and "create" to help them reach deeper levels of learning according to Bloom's et al.'s (1956) taxonomy. The question they answer in their short essay of 250 to 500 words is "Imagine you are a potential listener of your song. Imagine that your song is sitting on a media player in front of you, a listener who has never heard the song before. How would you describe that song in terms of its musical features so that the potential listener would know what they were about to hear?" I advise them that they must not include a description of the style of that song. This is for their classmates to think about in their posts. After each student's essay is posted to the Blackboard website, I ask the students to read each other's essay posts. I ask the students to respond to at least three other students' essays and guess the style of the song based on the musical features that were described by the songwriter, and then comment on what type of demographic would listen to, and possibly purchase, this song. I ask them to comment also to the songwriter in which type of setting they think this song would best be performed live for that audience they have imagined.

The final two phases of the project utilize the social media site SoundCloud (i.e., www.soundcloud.com). SoundCloud only allows for the posting of original songs or original arrangements – no covers or pre-recorded material. As such, it has become a go-to source for emerging songwriters to have their works potentially heard. SoundCloud is a free app allowing both songwriters and fans of emerging songwriters to become "members" who may access music from the site by means of computers or mobile devices. Members of SoundCloud can comment on the songs they hear, even at specific moments during the timing of the song that scrolls across the screen. As is the case with many social media sites, members may also "follow" songwriters whose music they enjoy. Songwriters who post their songs rack up comments, "likes," reposts, and shares from other members. SoundCloud songs can be shared not only within the app, but on other social media apps as well, including Twitter, Facebook, and others. The students create their song in a forum not only for their peers, but also for the Internet public.

The use of technology is scaffolded appropriately over the course of the semester. The students work on writing and recording their song throughout the first half of the semester. Then, I give the students instructions on how to post a recorded original song on SoundCloud. Shortly after midterm, students upload their songs to SoundCloud. To assist in ease of peer review, I copy the links to all of the students'

songs and post them on Blackboard, our LMS. This posting of a song and peer review is phase four of the authentic task.

Rubrics are used for guidance (to the student) and assessment throughout the project. For example, the phase four rubric states that students must comment on three places in their song where a specific musical feature can be identified. Also, each student must comment on at least two other students' songs and point out at least one musical feature they hear in each song that has not already been described by the songwriter or other students. As addressed in the rubric, students' comments must use correct musical terminology for their song and the peer-reviewed songs.

Comments about musical features help students as they transition their SoundCloud song recording into a podcast. The creation of the podcast's subsequent peer review is phase five, and the ultimate goal of the authentic task. For the podcast, students create a new uploaded file where they speak in-between musical segments of their previously uploaded song. In this recording, the students describe their songwriting process. In doing so, they comment on how the musical features of their song relate back to musical features of songs of other styles from the past that we have learned about in class. The rubric for this portion of the project highlights how students must describe at least three musical features in terms of a comparison to a song from the past with the same feature. Once again, focus of this task involves students' use of the correct musical terminology in their discussions of musical features and discussions of past songs, styles, and artists. Similar assistive links to each student's podcast are posted on the Blackboard website so that all the students may have easy access to them. Student then engage in a blind peer-review of their podcasts where each student reviews two other students' podcasts in terms of clarity, depth of research, discussion of musical features, discussion of past styles or songs, and use of correct musical terminology.

The podcast must be uploaded with a bibliography that includes all research sources used when researching the history of their musical features (i.e., the songs from the past, past artists, styles, and albums). The rubric for this task supports how each student must include at least five significant sources (books, scholarly articles, online databases, etc.) in their research.

DISCUSSION

The following discussion section identifies aspects of the example assessment and its alignment to an authentic assessment. Using the literature identified previously in the chapter, this section addresses each element of Koh's theory of assessment to suggest both how to design an authentic assessment through Koh's criteria, as well as provide discussion on ways to use Koh's criteria for re-designing and improving previously developed music assessments for the online environment.

Multiple Means of Authenticity

Discussion forums present an advantageous means for authentic student-centered learning in an online classroom in a manner that fits multiple aspects of Koh's criteria. In particular, the use of a discussion forum can address multiple evidences of learning including interaction with deep learning, self-assessment, and feedback mechanisms. In an ideal discussion forum, the instructor creates questions for discussion that can engage the students in class. Students post their own researched ideas in the forum, receive instructor feedback, and have an opportunity to discuss and defend those ideas in the forum. Discussion

forums acknowledge the student voice as central to the learning experience. This leads to students taking increased responsibility for their learning because it is up to the student to actively take part in the discussion. A discussion forum within an LMS is public to the class so that the instructor and students may see it emerge in real time through initial posts and feedback responses. Instructor responses and student responses are visible for all participants to read and respond to within the forum.

Understanding how the instructor fits into the interaction within the online discussion area is also part of developing an authentic assessment. The level of feedback and interaction is dependent on the teaching philosophy of the instructor and their teaching style. Aside from creating forums and asking discussion questions, instructors guide the discussion in a variety of ways, and therefore can steer the assessment back to authenticity should it become adrift.

Multiple Evidences Over Time

Discussion forums allow for students to have opportunity to explore their initial understanding, and then add to the forum as they learn from their peers and the learning of new content. In addition, the careful development of discussion questions can provide opportunities to support the diverse spectrum of student understanding while maintaining a focus on deep learning.

Koh (2017) suggests that authentic tasks need to take a certain amount of time in order to assess not only the students' learning but also their dispositions. Aside from creating forums and asking discussion questions, students can also guide the discussion in a variety of ways as outlined in the sample project above. In the sample project, the professor created a sequence of questions, thus propelling the original discussion further as the semester progressed. This way, the students not only utilized the time in the semester to learn, practice, and utilize new tasks that are related to real-world career skills, but also learned through persistence, resilience, and self-directed learning.

Koh's criteria for an authentic task and assessment of that task can give instructors guidance in scaffolding authentic tasks, and assess them as such. Koh (2017) further highlights that an authentic task provides practical opportunities for students to experience new knowledge and receive critical formative instructor feedback. She defines this criterion by saying that it gives students opportunities to "rehearse, practice, and look for useful resources" (p. 6). More importantly, this part of the task is public. Students are given timely feedback not only to improve on their work, but also, in the public environment, have the opportunity to defend their ideas. By allowing students to post and respond to each other in a public forum within the LMS, and then later on a public-facing tool like SoundCloud, students have moved through practical feedback loops that are refined throughout the process.

Empowering individual learning for self-assessment, Baggetun and Wasson (2006) termed self-regulated learning to describe how learners bridge cognitive and constructivist actions to assist in motivation. It is within this understanding of cognitivist and constructivist theories, such as problem-based learning, that the cognitive connection can assist in motivating learners to become deeply engaged with the material and may aid in student satisfaction (Schiefele, 1991). Both of these elements (i.e., motivation and student satisfaction) become further considerations for development of online courses that do not include face-to-face activities, as found in the traditional classroom.

Many of the songwriting majors who took part in the project described above did not start the course with a supervisory knowledge wherein they could identify specific musical features in order to adjust or monitor them in their music making. In the project, supervisory knowledge was a two-fold construct in that the students needed to identify a musical feature (e.g., type of guitar strumming or harmonic

device), and also trace it back in the history of popular music where a cultural construct of the sound's meaning has been created. Most students began the course at the impressionistic level where the student is aware of how the music affects their mood or memories, but is not highly conscious of which musical devices do this.

When students learn to form arguments on their own and then critique what they have learned from a personal perspective, they are empowered to become self-regulated and more motivated. As such, they also have more opportunity to become life-long learners. Becoming life-long learners is a key goal in building authentic assignments, especially in a problem-based learning scenario, since the students will use these same skill sets in their future careers. Building on the constructivist theory of Vygotsky (1978), Bandura (1981) identified how learners can learn from each other, and examined the social cognitive development influence on learning. Course designs for music need to connect in some form to student motivation (i.e., appealing to student interests and musical contexts).

It is most important in discussion forums that the instructor give clear instructions or a rubric for each student to follow when posting to a thread or adding a new thread to an existing post. Koh (2017) addresses this need for explicit expectations in criterion six. With further regard to expectations, Kirschner, Sweller, and Clark (2006) note that learners should be provided with direct instructional guidance on the concepts and procedures required by a particular discipline and "should not be left to discover these procedures for themselves" (p. 75). Without specific instructions, students may not complete the assignment in full, engage in tangential conversations before primary ones, or not participate in the forum at all.

Discipline-Specific, Deep-Learning Engagement

In the project sample provided, students had numerous opportunities to participate in an open discussion. Not only were discussions forums available for multiple student postings, the instructor initiated with questions that operated simultaneously on the "Apply," "Analyze," and "Evaluate" levels of Bloom et al.'s (1954) taxonomy. Students post differing thoughts and opinions, but they communicate through the forum like experts in the field. Furthermore, students recognize that they had to think deeply and critically, utilizing the sources provided for them so they could answer the questions for themselves and come up with valid critiques against or in agreement to the ideas of their peers. Original creation is the deepest level of learning in the Bloom et al.'s (1956) taxonomy. The students not only wrote their songs with elements of these and other styles they learned, but they also created a podcast wherein they explained where those musical features occurred, and outlined a history of their use in past styles. The combination of these learning methods and approaches allowed the discussion tasks to become a type of "toolbox" for the student where they could apply what they learned to the realistic activity for their future careers in songwriting.

Real-World Relevance

The sample project appeals to the students as such because it is an open-ended task that asks students to produce a song in a real-world context. Many new artists have been and continue to be discovered on SoundCloud. The creation of a podcast can further their visibility in that they must learn to communicate like experts in their field of songwriting – a creative and complex problem that requires students to adapt to the new environment of online media. Most importantly, the students "learn by doing."

Koh (2017) suggests that an authentic assessment addresses real-world relevance and content development are transferable to various contexts. These components can be addressed in the development of task content. In particular, deeper levels of learning such as analyzing, synthesizing, or evaluating what a student has learned can be encouraged through the purposeful scaffolding of course design. This can be guided by clear, specific questions in the discussion forum that are building upon the ideas and knowledge content identified in the content area. Questions asking the student to define, list, or state knowledge require the brain to access rote memory which is the initial "Remembering" level in Bloom's taxonomy. Discussion question construction can limit or enhance learning. That is, the nature of the question is key to building effective online discussions. For example, "Remembering" questions limit students to providing answers that "state" or "define" a term or idea correctly. It does not invite in the participation of many students. Questions at the "Understanding" level have a similar problem in that they limit students to classify or identify ideas.

While these questions might be useful for short group exercises, such as asking students to classify a list of instruments in the symphony orchestra into orchestral family groups, it does not spur lengthy discussions. To invite students into more in-depth discussions, one must aim for the "Apply," "Analyze," and "Evaluate" levels of the taxonomy. For example, application questions ask students to solve problems or interpret ideas for themselves. "Analysis" questions go further by asking the students to draw connections between ideas by differentiating them, relating them, or comparing them. In the "Evaluation" level of the taxonomy, students are asked to justify an idea or even take a stand on a position and make a personal decision based on the ideas they have learned. In doing so, they can appraise ideas, form arguments, judge or defend ideas, and critique ideas they have learned from a more personal perspective. Questions from the "Evaluation" level often make excellent questions for discussion forums because of the many different opinions and backgrounds of the members of the online class. In this environment, students have the best opportunities for "deep" learning because they have the ability to learn from each other. For example, students wrote their original posts from a point of self-reflection (i.e., demonstration of their content remembering and understanding). As they moved further into the discussion week, they gave peer review within the discussion forum (i.e., application, analysis and evaluation of peer work). Students' answers to these questions were publicly presented in the discussion forum where they receive immediate feedback by both the instructor and their peers.

Skill Development

Moving beyond the conventional method of assessment of lower-level thinking, authentic assessments provide students with meaningful "open-ended tasks that require students to construct extended responses, to perform an act, or to produce a product in a real-world context – or a context that mimics the real world" (Koh, 2017, pp. 4-5). The demonstration of contextual knowledge and higher-level thinking skills are opportunities (i.e., authentic assessment tasks) created by the instructor for students to showcase their current level of skill competency. Additionally, they also provide the instructor with practical ways to identify ideas and learning for the students to address. These assessments are rigorous, participation-based learning experiences that, given their open-ended nature, welcome student-centered learning to challenge one's preconceived ideas and current world view. In a music context, this suggests that students are given relevant tasks that involve various aspects of music they are currently performing, writing and/or experiencing.

The collaborative nature of authentic assessment further suggests that an authentic assessment in music should involve opportunities for students to interact with other music students and instructors to co-create and interact with complexities of musical knowledge and skills. Authentic assessments such as these can happen both in the face-to-face classroom and in the online environment.

IMPLICATIONS

There are two implications identified from the exploration of using an online discussion forum as an authentic assessment. Specifically, instructors need to understand and know the students they are teaching and understanding the phases of learning that can happen within an extended online discussion. Awareness of these two contexts helps support instructors as they develop and design their online discussion area for authentic assessment.

Knowing the Student

Prior to developing, or looking to re-design an online music assessment task, it is important to identify current student knowledge and skills. That is, of the four development stages for learning as outlined by Elliott (1995) which stage is most common for the students that will be taking the course. Identifying the overall development stage for the intended students can provide a context that supports the achievement of course objectives while framing learning expectations. Throughout the process of aligning a learning task to Koh's (2017) criteria, the evaluator (i.e., instructor of record, or course designer) should be continually reminded of the course audience to achieve authenticity for each particular learning task.

Stages of Knowledge Development in Discussions

Given the multiple forms of learning and assessment that take place in the online discussion forum, it becomes important to acknowledge the different stages of learning that can happen within the forum. The graphic below displays begins to identify the possible phases within a discussion that takes place over an extended period of time.

Figure 1 isolates the stages of learning and self-assessment exhibited by a student in an online discussion forum. Initially, the forum sets out to explore what the students already know. That is, they begin with peer opinion in the discussion forum wherein students explore their previous knowledge and understanding of musical features and their history. They move on to subjective reasoning where students demonstrate personalization of those ideas and their feelings about their music and the music of other students in the course. Finally, in the last step, the learning process for the student becomes one where idea negotiation takes place where students use reflection in the forum and in the processes of their research to negotiate and support their ideas.

Online Discussions Design

The traditional lecture format, in which students take a passive role in their learning, can be ameliorated in a constructive online discussion forum. Scaffolding questions where students must use critical thinking skills in order to respond appropriately in a discussion forum can create an opening between the instructor

Figure 1. Phases of pedagogical scaffolding in online discussions
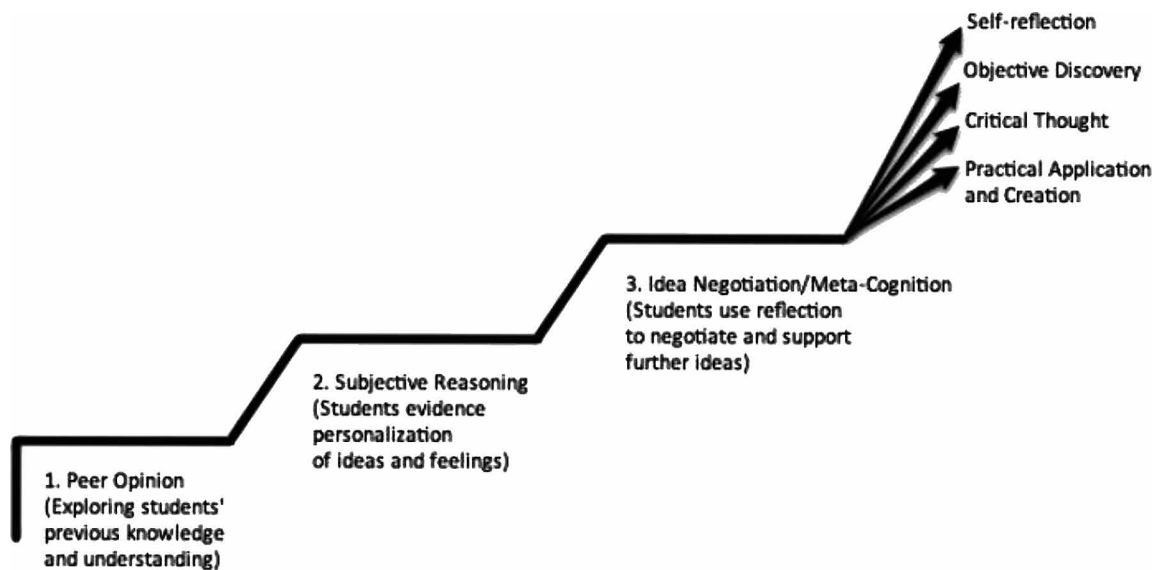
and the student. Such an opening can form a space for peer-to-peer interaction in which an abundance of knowledge-making can occur. This fits with Lev Vygotsky's theory of "Zone of Proximal Development" in which students learn vicariously from each other under the guidance of a professor (1930–34/1978).

Some instructors also choose to engage their students with their own thoughts in the forum. Often, professors will use modeling to show students the types of responses they are hoping to see in a productive discussion forum. Asking discussion questions and positioning students for developing thoughtful answers creates helpful distance from the traditional role of student as the "active learner" and the instructor as the "teacher."

For an authentic discussion task, the instructor could create a sequence of questions, thus propelling the original discussion further as the semester progresses. Students not only utilize the time in the semester to learn, practice, and perform new tasks but they also encounter aspects of self-directed learning over an extended period of time. For other possible tasks that can be explored using a discussion forum, see chapter three titled, *One Post and Two Responses: Enlivening the Online Discussion Forum* by Dr. Alison Alcorn.

Shifting the empowerment to individual learning, Baggeton and Wasson (2006) termed self-regulated learning to describe how learners use cognitive and constructivist actions to assist in motivation. It is within this understanding of cognitivist and constructivist theories, such as problem-based learning, that the cognitive connection can assist in motivating learners to become deeply engaged with the material, and may aid in student satisfaction (Schiefele, 1991). Both of these elements (i.e., motivation and student satisfaction), become key considerations for development of courses that do not have students encountering each other face-to-face, as found in the traditional classroom.

Communication is key for authentic online learning experiences. Park and Bonk (2006) noted that students who found connections with their peers through synchronous communication tools such as discussion boards lowered the "isolation barriers" students frequently lament in online classroom environments (p. 312). Students notice isolation barriers in online classes because in courses where students have the

547

ability to interact, they motivate one another to succeed (Keast, 2009, p. 1). From a social constructivist point of view, humans are active learners and must construct knowledge for themselves by using tools to learn from their experiences. The educator gathers materials for students to learn, but the students construct their own understanding of the material. The most important job of the instructor is to "scaffold" the material to be learned throughout the course or assignment. Scaffolding is the deliberate placement of tools for the students to find and utilize. To do this, the instructor must project and visualize which questions students might have at each step of the activity, and provide assistance at the appropriate time (Keast, 2009). In a discussion forum, the instructor begins by asking specific questions aimed towards deeper learning that would garner more student engagement. Then, they become a type of facilitator in the forum, "dropping in" on the discussion as it takes place. According to Keast, it is at this time that instructors should then direct students to appropriate pools of information and enable them to construct their understanding of the topic being discussed in real time.

CONCLUSION

In the sample project provided, students moved from the imitation of ideas learned in their course material, to innovation where the course material becomes a part of the music they create and perform. Students also have opportunity to improve other important skills such as written communication in the discussion forums, and aural communication in the recording of their assessments in the final podcast. Research skills are also integrated into this project in that students are required to use significant, scholarly sources to back up their ideas presented in the podcast.

With online instruction moving forward, the pervasiveness of technology is permitting an increased number of people of various cultures, socio-economic statuses, and geographic locations to experience the personalization of learning that occurs in online environments (Brown & Adler, 2008). With the varied backgrounds of online learners, it is integral to incorporate understanding of how learners learn within a frame that supports effective ways for students to learn music online. Teaching with the use of authentic assessment criteria in mind, a learning project can assist students to move from imitation of ideas learned in their course material, to innovation where the course material becomes a part of the music they create, perform, or teach.

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KEY TERMS AND DEFINITIONS

Formative Assessment: An approach to assessment that generally involves feedback mechanisms that allow students to demonstrate their current knowledge and use instructor feedback or structured peer review to improve the task outcome. An example of formative assessments includes projects that contain multiple points in time wherein students can adjust or improve their project based on a formal or informal assessment by the instructor.

Learning Task: An activity that takes place within either a face-to-face or online course context. The activity provides students with opportunity to demonstrate their learning of course content.

Musical Features: Refer to the specific descriptions of music found within a song (e.g., timbre, rhythm, chord progressions, etc.).

Musical Styles: Generally, refers to a particular configuration of a musical composition or structure (e.g., Blues, Baroque, etc.), inclusion of musical instruments (e.g., Big Band Jazz), and/or musical sounds (e.g., Electric Fusion).

Scaffolding: The incremental and cumulative development of learning over a period of time.

Social Media: Online tools that focus on sharing information to a particular audience. Examples of social media tools include Twitter.com, Facebook.com, and Diigo.com.

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