

Everything I Know About Teaching I Learned From Jazz

Wade Luquet¹

Gwynedd Mercy University, Gwynedd Valley, PA 19437

Abstract

The instant availability of information has changed the paradigm of teaching. Whereas at one time teaching and learning was information being passed, memorized, and repeated, students can now find their own knowledge. Learning now consists of using information in creative ways and requires a shift in how students are taught. This is quite similar to what occurred in music over a hundred years ago when jazz was introduced to the culture. Music moved from musicians playing what the composer wrote, to creating their own music within a structure. This shift is an apt metaphor for the changes being felt in twenty-first century teaching and learning. The processes of learning and creating jazz provide a way to illustrate new teaching methods that allow students to discover new knowledge through their own creative interests and to develop self-efficacy with the material.

Keywords: Teaching, metacognitive, learning.

"The only thing that interferes with my learning is my education." Albert Einstein

Most of us in higher education know our subject matter. We spend years reading in dark corners of libraries, searching the internet for obscure bits of information, and many lonely hours writing up our ideas. We have juries of peers verifying what we know. Knowing is usually not our problem. Teaching, however, is something for which we are given very little guidance—an afterthought for our graduate programs. After all, if we repeat back what we know, others will know too.

I was born and raised in New Orleans. While I am not a musician, you cannot grow up in this city without being affected by the music that permeates the air. It is the soundtrack that plays in our heads. It occurred to me one day while sitting in one of my favorite New Orleans jazz clubs that everything I know about teaching I learned from Jazz.

Jazz—America's first original art form—confused the classical music crowd when it began to emerge in New Orleans in the early 1900s. It was spontaneous, improvisational, and sexy. It was a product of the musicians, rather than the composer and conductor. It was unabashedly multi-cultural and a great example of what can come about when cultures come together. But for all of its wonderful musical qualities, it was maligned by

¹ Corresponding author's email: Luquet.w@gmercyu.edu

proper society in New Orleans. A 1917 article in the local paper, the Times-Picayune, regarding New Orleans being the birthplace of jazz declares,

“We do not recognize the honor of parenthood, but with a story in circulation it behooves us to be the last to accept the atrocity in polite society, and where it has crept in we should make it a point of civic honor to suppress it. Its musical value is nil, and its possibilities of harm are great” (Rose, 1975, p. 107).

Using jazz as a guide for teaching may also be shunned by the “polite society” of higher education pedagogy, yet, buried in the process of creating jazz is everything we need to know about teaching and learning.

Teaching and learning necessitates cognitive, emotional, and meta-cognitive skill building in which students learn to know about knowing (Kolb & Kolb, 2009; Tanner, 2012). With readily available knowledge and information, students can go beyond memorization of facts to discovery and creation. In fact, 21st century learning must go beyond memorization and “teaching to the test” as fields evolve at a faster pace requiring students to keep up with new trends and information. Twenty-first century students, like 20th century jazz musicians, will need multiple skills to develop new ideas or risk becoming obsolete at a young age. In response, professors will also have to make changes in their teaching.

Classes, whether directly or indirectly, will have to convey not only learning, but the process of learning. Students impacted by the process as well as the content become motivated to learn more because they have the tools to learn more. Knowing the process of learning allows the learner to use information to create new learning or critical thinking strategies to deal with a problem. This changes the role of the professor from the “composer” to the “arranger” of the class. Likewise, assessing outcomes shifts from knowledge of content to use of content—how students play and use what is presented to them.

Jazz, and learning jazz, is also cognitive, emotional, and meta-cognitive. Players understand that there is a chord structure and a melody, and there is also improvisation. The chord structure and melody give the tune a frame. It is in the improvisation that learning takes place for the individual player. They use what they have learned to learn more. Subsequently, others learn from that player. While improvisation is used at times in other music forms, it is most pronounced in jazz.

Discoveries in neuroscience revealing the biological processes of learning are shaping both our ways of knowing and the new ways in which knowledge is being created. These developments are no more evident than in the fields of science, where the shift toward learning for understanding, application, integration and discovery is pronounced (Roehr, 2012; Brewer & Smith, 2009). Through work funded by the Teagle Foundation, my study of teaching and learning has been informed by both the learning sciences and through active cultivation of evidence-based practice. Here is what I have learned about teaching and learning from the lens of jazz.

Start and End With the Head

In jazz, musicians start and end with what they call a “head”—the initial chord structure and melody that all play together before they go off into their solos. The musicians establish the tune and play close to the melody line and chord structure they read from the one page chart. After the head is played, each musician typically takes a turn—a solo. Improvisation is encouraged and stretches the music into unknown areas, and thus new learning for the player. Other players add accent notes while the drum and the bass keep the beat and rhythm to support the soloist. Jazz tunes are seldom played the same way twice (Ciorba, & Russell, 2014).

Yet the musician must stay within the rules—playing in the correct key and notes within the scale with the occasional grace note. The combinations are endless and take the musicians and listeners to new places within the music’s structure. Sometimes it gets messy, and sometimes it gets downright hard to listen to when the musician tries out a new combination. When each have played their unique solo, the band joins back together to again play the head—that original tune that gave the song its structure and purpose. The head played at the end gives coherence to the song.

A good class also starts with the head—here is what we are going to learn about today; here is what is known about this topic thus far from the research. The professor can then give an assignment to the student or the group to use the information in creative ways that assist in new learning or discovery. The learners experiment with the information. They stretch it into new places, play with it and take chances. When learners plays with the information, it sticks in their minds in ways different from simple memorization. Not only is the material remembered, but the learner now has a new way to learn. Through a process neuroscientists call “consolidation” and “re-consolidation”, new neural pathways are created and the learner has less fear of charting now familiar territory the next time (Alberini, 2013; Schiller et al., 2010). What seemed daunting and unobtainable becomes common as the brain learns new material and new ways of learning. The new learning becomes second nature, and the learner can take next steps because of the confidence built from previous learning.

Play in the Right Key

Every class has a personality, as does each jazz tune. In jazz, to play with the other personalities in the band, you have to play in the same key to sound right to the ear. If someone plays in the wrong key, the tune sounds discordant and is difficult on the ears. When we approach a class in the wrong key for the learners, what we say sounds discordant, and the class does not go well. Sometimes there are those in the group who are not familiar with a certain key. In that case, the band leader may consider changing the key, which can mean helping the class adjust to the teacher, or the teacher adjust to the class. This does not mean dumbing down the class; it means working with the class you have—play the same song in a different key.

One seldom knows the personality of a class until several weeks into the semester. Some classes are talkative while some are quiet. Some classes are smarter than others, and some classes are more emotional than logical. Classes are essentially groups and often the professor has little control over the participation level of the students (Fassinger, 1997). Overly quiet or overly chatty classes can be frustrating to the professor. Like a parent and child, “goodness of fit”—the compatibility of a class temperament with the environment created by the professor—often determines the outcome of the class. Parenting experts often classify children’s temperaments as easy, difficult, or slow to warm up (Thomas & Chess, 1977). Certainly these three categories can describe the personality traits of many classes.

In a good jazz jam, the band adjusts to the players, but at the same time pushes the weaker players to a next new level. No one is made to feel embarrassed if he or she is working to their highest level, plus a little more. The band has an awareness of all of the other players and their level of play, and the experienced players remember that they once played at that level too. The classroom, like the jazz jam, can be designed to be a nurturing environment that appreciates the present level of knowledge, and pushes the student to the next level. In essence, the faculty and students co-construct an environment that promotes learning and communication between members based on personality and ability (Sidelinger & Booth-Butterfield, 2010; Kimball, 2011). As the class progresses, they can take on more difficult material, change the key and become more proficient players.

Let Others Play

As young jazz players learn the language of jazz, they build confidence in their knowledge of their instrument and playing in a group. They have learned through their successes and flops how far they can take their instrument and still stay within the set tempo and tone. They develop what Bandura (1997) called “self-efficacy”—the belief that they have the capacity to perform a designated task.

A good class is not about the teacher as much as it is about the learner. Certainly the teacher must set the tempo and tone of the class, but the real learning occurs when students have a chance to play. When the teacher gives the student room to “play” with an idea or task, the student develops self-efficacy. Ownership in an idea or task inspires students to participate and master a topic (Gibson, 2011).

Group work, debates, lab work, one-minute papers, flipped classrooms are all meta-cognitive teaching techniques that allow students to play with the material. As students master the material, they move forward to master the next level of material, as opposed to hearing a lecture and memorizing it for an exam. For example, delivering a short history lecture on a topic then teaching students how to do primary research to produce their own work on that subject is more instructive and inspiring than the traditional “sage on the stage” style lecture/assessment format (Jafari, 2014; Chilwant, 2012; Mason, Shuman, & Cook, 2013).

Be a Witness to Creativity

Jazz musicians love to see others play well. Solos are often met with nods of appreciation by other musicians as each take a turn to impress the other with their impromptu riffs. The other musicians maintain their supportive roles by keeping the rhythm while the soloist creates something new (Monson, 1996). A good classroom is supportive of new ideas.

In classic models of teaching, the professor dictates what needs to be learned. Through course lectures, readings, and test, information is delivered and then assessed to make sure the student learned what was required. Meta-cognitive learning allows for creativity and discovery. Of course, this sort of self-directed learning needs to be done within the context of established course objectives (Gibson, 2011), but students in a supportive class setting and given the right supporting material will be interested in creating and discovering more about the topic. They will become the drivers of their own education and will think of themselves as “learners” rather than “students”.

Jazz is often thought of as a group of people having a conversation in a common language through their instruments. Often in jazz sessions, one will hear the audience, and even the players, mutter “Oh Yeah!” or “Play it!” This is a way of saying, “I like that!” or “Good Job!” It is a witnessing of the effort and the delivery of the “words” created by the musician and the instrument (Monson, 1996). Of course, not every effort is worthy of a trophy or applause, and a player can usually tell if the effort fell short by the lack of applause, or even worse, tepid applause. It is a signal to try something different next time. Classrooms can be that way with continuous feedback flowing among students, instructor and the group as a whole.

Take Chances

Every good jazz musician has many tales of embarrassment—playing in the wrong key, missing notes, or a solo that just went bad. Sometimes the best learning experiences are mistakes (Healy, 2014, Linquist, 1999, Mysliwiec, 2005). Rather than ridiculing the mistake, as too often happens in classrooms and essentially shuts down participation, experienced jazz musicians appreciate the attempt, learn from the mistake, and move forward keeping the song moving and leaving the learner with dignity and a the new learning experience. Jazz musicians focus on the process of creating jazz rather than the results. Results will come when the process is learned and mastered. This musical learning method emphasizes creative thinking over rational/logical thinking. To do things right, the musician also has to know how to do things wrong.

Constructivist education models work in a similar way (Milbrandt, Felts, Richards & Abghari, 2004). While the professor may know the answer, students are given assignments and tasks that allow them to discover the answer and beyond. In this model of teaching, professors set up the lesson for the day—or provide the chart—and the students are then encouraged to solo or play in small groups to discover the answers and new learning experiences. This leads to what Freedman (2003) suggests, “the mind creates

knowledge in response to the world, as it creates and recreates itself" (p. 80). Students taking chances with the material changes their perspective, expands their way of thinking, and allows them to be open to new ideas and learning experiences (Harrison, 2014). These students allow themselves to be changed by new knowledge and experiences rather than being stuck in their ideas.

Make It Joyous or Make It Sad, But For God Sake, Play with Emotion

For a period of time in old New Orleans, jazz was used to arouse and excite men who were visiting the brothels in Storyville. The thought was the faster they played, the more excited they would become, so they would "jazz it up". Still today, most good tunes in New Orleans clubs end on a high note and a great cheer from the crowd. Certainly we are not in the classroom to arouse, but we should be there to excite our students about learning. A good classroom has a sense of excitement and zest that is determined by the excitement of the professor for the topic. As Micciche (2007) states "Emotion matters to teachers because the classroom is alive with bodies, hearts, and selves, and because learning is joyous, exciting, frightening, risky, passionate, boring, disappointing, and enraging" (p. 105).

In jazz, that excitement is enhanced when the performer is able to "swing" the music. Swing is an elusive term that is more a felt experience than a defined term, but a listener can easily tell if a tune has swing from one that does not (Promane, 2009). A tune without swing is dry and boring. A tune with swing has toes tapping, bodies swaying, and heads nodding. The audience becomes one with the band. In a good classroom, students are engaged because the professor is excited about the topic, engaged in the lecture and uses his or her voice in a way that helps the students stay with the lecture. Teacher enthusiasm is directly related to positive course evaluations (Barth, 2008). Teacher enthusiasm encourages students to become more involved in the learning process (Patrick, Hisley & Kempler, 2000).

How does one create this excitement in their classes? Pay attention to the audience, take control, teach things you love, and do it with enthusiasm. Step away from the lectern and talk with students. Walk around the classroom and enjoy the vibe of students learning and always keep in mind that learning is an emotional experience as well as a cognitive experience. As much as teachers would like to think that students will remember their every word, it is more likely they will remember the feel of the classroom and the connection with their learning process; create an atmosphere for learning and the learning will occur (Keller, Goetz, Becker, Morger, & Hensley, 2014).

Jazz as a Model of Teaching

In this article, I have attempted to illustrate that jazz, and the process of creating jazz, may be an effective teaching analogy for teaching in our university classrooms. Jazz is creative, meta-cognitive, cognitive, relational, and constructivist by nature (Biasutti,

2015). Jazz musicians must have an understanding of music theory and know the rules of jazz which makes this part of their learning a cognitive process. The process of creating jazz improvisation requires the musician to think beyond the set melody and chord structure, thus making this part meta-cognitive. Both are important to the song and this process lays down new neural pathways and enhances critical and creative thinking as players learn from taking chances. Where a classical musician may have to practice a piece with others several times to get the tune right and get the approval of the conductor, it is not uncommon for a group of musicians in a jazz jam to meet for the first time and play a tune they may have heard only a few times and make new music from one page of written notes and chords. Perfection is not the goal in jazz. New ideas based on old ideas that sound good to the listener and players is what is most important. That is the creative process.

While those who may not understand jazz may see this musical form as old and outdated, jazz musicians would argue that jazz is always fresh and new because it is seldom played the same way twice. New ideas are created each time a group plays. It can also be argued as musicians perfected one form of jazz they created other forms to move the music forward. From those early mostly African-American musicians gathered in New Orleans who consciously decided that music can be made spontaneously without sheet music, to the swing era, to bebop, hard bop, and today's modern jazz sounds, the music has constantly changed and evolved toward greater complexity.

When we look at progress in the multitude of academic fields, we can see a similar process. Creating new complexity in music, as well as academia, is initially controversial and often rejected by the mainstream. Eventually the idea becomes an interesting thought and gathers adherents before becoming accepted by the mainstream, and the next idea, or paradigm shift (Kuhn, 1962), is introduced and the pattern is repeated. In all academic fields, there are truths that need to be taught as the cornerstone of the field of study. There are cognitive facts that hold up the discipline. These are the charts that hold up the song. Giving students opportunities to play with the knowledge creates new knowledge (Gruber & Barron, 2011). All new knowledge and paradigm shifts occur because someone stepped outside what was known.

Good teaching and effective long-term learning is more than memorization of facts. While most fields require a knowledge of facts—the Periodic Table comes to mind—it is more important that students know what to do with those facts. That would best come through practice and playing with information. How jazz is learned and played is a good model for most teaching situations. Allowing students to play with their own ideas within the structure of the day's lesson provides the student the opportunity to develop an in-depth understanding of the material. As they make mistakes and learn from them, students become more competent and develop self-efficacy (Moser, Schroder, Heeter, Moran, & Lee, 2011). And that is good teaching by any measure.

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References

- Alberini, C. M. (2013). *Brain Reconsolidation*. New York: Academic Press
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Barth, M. M. (2008). Deciphering student evaluations of teaching: A factor analysis approach. *Journal of Education for Business*, 8(41), 40-46.
- Biasutti, M. (2015). Pedagogical applications of cognitive research on musical improvisation. *Frontiers in Psychology*. 6, 1 – 12
- Brewer, C., & Leshner, A. (2009). *Vision and Change in Undergraduate Biology Education: A Call to Action*. The American Association for the Advancement of Science (AAAS).
- Chilwant, K. (2012). Comparison of two teaching methods, structured interactive lectures and conventional lectures. *Biomedical Research*, 23(3), 363 – 366.
- Ciorba, C. R., & Russell, B. E. (2014). A proposed model of jazz theory knowledge acquisition. *Journal of Research in Music Education*, 62(3), 291 – 301.
- Fassinger, P. A. (1997). Classes are groups. *College Teaching*, 45(1), 22-26.
- Freedman, K. (2003). *Teaching visual culture: Curriculum, aesthetics, and the social life of art*. New York: Teachers College, Columbia University.
- Gibson, L. (2011). Student-directed learning: An exercise in student engagement. *College Teaching*, 5(3), 5 – 101.
- Grasha, A. (1996) *Teaching with Style*. Pittsburgh, PA: Alliance Publishers.
- Gruber, S., & Barron, N. (2011). New learning and participatory citizenship: Creating knowledge communities in educational environments. *The International Journal of Technology, Knowledge and Society*, 7(2), 101 – 107.
- Harrison, P. (2014). Speculate to accumulate: How the trend to rehabilitate mistake and failure obstructs the learning process. *Mathematics Teaching*. 239
- Healy, D. J. (2014). “Play it again, Billy, but this time with more mistakes”: Divergent improvisation activities for the jazz ensemble. *Music Educators Journal*, 100(3), 67 – 72.
- Jafari, Z. (2014). A comparison of conventional lecture and team-based learning methods in terms of student learning and teaching satisfaction. *Medical Journal of the Islamic Republic of Iran*. 28(5), 1-8.
- Keller, M. M., Goetz, T., Becker, E. S., Morger, V., & Hensley, L. (2014). Feeling and showing: A new conceptualization of dispositional **teacher enthusiasm** and its relation to students' interest. *Learning & Instruction*, 33 29 – 38.
- Kimball, L. (2011). Liberating structures: A new pattern language for engagement. *OD Practioner*, 43(3), 8 – 11.
- Kolb, A. Y., & Kolb, D.A. (2009). The learning way: Aspects of experiential learning. *Simulation & Gaming*, 40(3), 297-327.

- Kuhn, T. (1962). *The Structure of Scientific Revolution*. Chicago: The University of Chicago Press.
- Lundquist, R. (1999). Critical thinking and the art of making good mistakes. *Teaching in Higher Education*, 4(4)
- Mason, G., Shuman, T. R., & Cook, K. E. (2013). Comparing the effectiveness of an inverted classroom to a traditional classroom in an upper-division engineering course. *IEEE Transaction on Education*, 56(4), 430 – 435.
- Milbrandt, M. K, Felts, J., Richards, B., & Abghari, N. (2004). Teaching-to learn: A constructivist approach to shared responsibility. *Art Education*, 33, 1-24.
- Micciche, L. R. (2007). *Doing Emotion: Rhetoric, Writing, Teaching*. Portsmouth: Heinemann.
- Monson, I. (1996). *Saying Something: Jazz Improvisation and Interaction*. Chicago: The University of Chicago Press.
- Moser, J. S., Schroder, H. S., Heeter, C., Moran, T. P., & Lee, Y. H. (2011). Mind your errors: Evidence for a neural mechanism linking growth mind-set to adaptive posterror adjustments, *Psychological Sciences*, 22(12), 1484-1489.
- Mysliwiec, T. (2005). Telling, doing, making mistakes, and learning. *Teaching Professor*. 19(5), 5.
- Patrick, B.C., Hisley, J., & Kempler, T. (2000). What's everybody so excited about?': The effects of teacher enthusiasm on student intrinsic motivation and vitality. *Journal of Experimental Education*, 68(3), 217 – 237.
- Promane, T. (2009). Achieving a swing feel. *Canadian Winds*, 8(1), 21 – 23.
- Roehr, R. (2012). Vision and change: How new research and new technology are transforming biology 101. The American Association for the Advancement of Science web site.
- Rose, A. 1975. *Storyville, New Orleans*. Tuscaloosa: University of Alabama Press.
- Schiller, D., Monfils, M. H., Raio, C.M., Johnson, D.C., LeDoux. J., & Phelps, E. (2010). Preventing the return of fear in humans using reconsolidation update mechanisms. *Nature*. 463(7), 49 .
- Sidelinger, R. J., & Booth-Butterfield (2010). Co-constructing student involvement: An examination of teacher confirmation and student-to-student connectedness in the college classroom. *Communication Education*, 59(2), 165-184.
- Tanner, K. D. (2012). Promoting student metacognition. *CBE-Life Sciences*, 11(2), 113 – 120.
- Thomas, A., & Chess, S. (1977). *Temperament and development*. New York: Brunner/Mazel.