CTE Flipped Grant Report J. Daniel Jenkins MUSC 115 (Music Theory I, Fall 2015) and MUSC 116 (Music Theory II, Spring 2016) April 30, 2016

This grant was for two classes in a four-progression sequence of music theory courses that undergraduate music majors and minors must take. The first course in the sequence, MUSC 115, also carries the AIU designation in the Carolina Core. At the end of the grant period, as I reflect on what I was able to achieve with this grant funding, I recognize that while there were challenges, but the choice to flip these courses was largely a success. I recount the successes, challenges, and steps forward below.

Application of Theoretical Knowledge to Musical Performance

As I wrote in my grant application, too often music theory courses are divorced from practical application to musical performance. Some professors try to overcome this by assigning piano keyboard assignments that students perform periodically throughout the semester. These performances usually take place outside of class time and allow time only for assessment, not for instruction.

In the flipped version of the courses, a graduate teaching assistant (GA) and I were able to meet with students once each week in a room where all students had their own Musical Instrument Digital Interface (MIDI) Keyboard. With only 20 keyboards in the room and two instructors, we were able to have a student/teacher ratio of 10:1 or less in these classes. Each student received group and individual instruction from either me or the GA during these sessions.

We saw considerable improvement among these students relative to their ability to apply theoretical knowledge to musical performance. Two examples from MUSC 116 (Spring 2016) are particularly salient. One involved the concept of musical sentences (an eight-measure basic structure of musical form). After a short lecture about the sentence, students were given two-measure incipits from which they were to improvise by singing their own sentence. After performing these sentences in groups, we also heard individuals perform. Then, students were required, without writing anything down, to sit at the MIDI keyboard and devise a piano accompaniment that was appropriate for their sentence. For their homework for the following Monday, students recorded themselves singing their sentences while accompanying themselves on the piano. In a traditional classroom, analysis of sentences would have been the focus. Students might later be asked to compose a sentence, but they would not likely be asked to improvise one, nor to determine an appropriate harmonic accompaniment only by ear. We flipped this paradigm by having students demonstrate their knowledge of the sentence through musical performance first. Later, we when asked them to do the traditional task of analyzing a sentence, they did not find the task difficult. Thus, we were able to incorporate and go well beyond what is often achieved in a traditional music theory class.

A second noticeable success this semester came in our unit on harmony in popular and rock music. After watching a video about schemata in popular music and taking an online quiz, students came to a class meeting where they were played musical examples similar to, but distinct from, those they heard in the video. Without being told anything, including the key, students were able to identify by ear the type of musical progression that was being played on the recording. They then were instructed to play that progression at their piano keyboards while I played the recording. Finally, I turned off the recording and had them play the progression while they sang the melody. Effectively, the class demonstrated an ability to play *by ear*, precisely the type of activity that we had not done in the past and what I had hoped we would be able to achieve this year. At the end of the pop-rock unit, we gave the students a traditional pencil and paper exam. The average across all sections was 96.2%. Since MUSC 116 has not had a pop-rock unit in prior years, it is impossible to compare this figure with previous groups of students. What is undeniable is that this group of students not only mastered the knowledge we wanted them to have about harmony in pop and rock music, but they are able to demonstrate that knowledge in not only a theoretical, but also a practical, way.

The students not only demonstrated music knowledge at the MIDI keyboard and with their singing voices. Students also had compositional projects. For their final project in MUSC 116 they had to compose (1) an example of 18th-century counterpoint for two instruments, (2) a musical sentence for voice and piano, (3) a musical period for voice and piano, and (4) an arrangement of an excerpt of a pop tune for four instruments. The counterpoint projects could only utilize instruments that were played by students in the class. Thus, on the last Friday of classes, all the projects were performed, giving the students another opportunity to demonstrate their musicianship.

Standards Based Grading

One of the greatest challenges with MUSC 115 is that our music majors represent quite a disparity relative to their preparedness to begin studying music theory. A firm grounding in music fundamentals (pitches, intervals, scales, key signatures, and chords), is essential to success not just in music theory, but in music study in general. Too often we see students in their third semester of study who still pause when asked what key a piece of music is in. On the other hand, students who already know this information are bored by the beginning weeks of MUSC 115, and lose interest.

To combat these problems, I instituted Standards Based Grading for the content of the first six weeks of MUSC 115. I identified 21 standards, or topics, that a student had to master in order to be successful in music theory study. For each standard, students were given 10 questions. If they could answer 9 of 10 correctly, they passed the standard. They could take each standard multiple times, but their grade on the standard would decrease with each try. Students who did not pass standards early on had access to office hours with me, their GA, our Student Success Center tutor, or online tools. They had until the end of the semester to pass all standards. Failing to pass all 21 standards meant failure of the course.

There were great advantages to this type of assessment. It helped me identify quite quickly which students needed extra help. Too often, it is midterm before you have a handle on this, and then it can be too late. A certain segment of this population was quite selfmotivated. They came to my office hours every week to pass off one or more standards. Some of these students ended the class with an "A." That would have been impossible in a traditional model that did not allow for redemption of their early failures. Other students did not accept the challenge, and left passing off standards until the last few weeks of class. Figuring out ways to motivate these students to be more proactive is something I will be working on.

All in all, students took up the challenge and we had a very low failure rate. Only three students from the five sections of the course received a D or an F. As we moved into MUSC 116, I noticed that most students had very little trouble with the fundamental knowledge we had targeted with Standards Based Grading.

Moving Forward

Moving forward we will continue the structure of MUSC 115/116 that we have put in place this year. I will teach all sections of the course on Mondays with a graduate student in a keyboard lab. The students will meet with their GA on Wednesdays and Fridays.

In lieu of final exams in these courses, we had final projects. I will definitely continue that model moving forward. We spend a week of class time allowing students to workshop their projects with me, the GA, and when appropriate, other students. Some students who have trouble with traditional exams blossom in this creative environment, and some at a level that exceeded what their traditional scores suggested they were capable of. (These moments were particularly rewarding.)

I will work to make even more video content next year, especially for MUSC 116. This will allow us to use even more instructional time on Mondays for musical performance.

Most of the homework has been graded this year based on completeness rather than correctness. It encourages students to try assignments even when they feel less confident about them. By and large, this has been successful, and I will continue doing that next year, but I will also add assignments that are graded for correctness. For example, we spend one week (three class periods) on most topics. The homework for the first and second days could be graded for completeness, while the homework for the third day could be graded for correctness. These "final" homework assignments could also carry more weight, encouraging students to master the material by the end of the week.

In regards to Standards Based Grading, I will give more exams more often, with less content on each exam. This past year, I tested all 21 standards in two 50-minute exams. Many students, even the best students, were unable to complete the second exam, which was discouraging. I noted that almost all students were successful on the first three standards, even when they were part of 9 standards tested on the first 50-minute exam. I decided that 20- or 30-minute testing periods once or twice a week, rather than a 50-minute exam at the end of week 3 and another at the end of week 6, would be more appropriate for this material. Early on, most students will achieve the standards on the first try, which, I hope, will build confidence. Going forward, they can confront these standards in "bite-sized" chunks, and the whole process will seem less daunting. I think this approach might also leave more class time for peer learning. Creating more opportunities for peer learning is a big goal I have moving forward.

These are but some of the things I hope to achieve next year.

Conclusion

This grant from the CTE was invaluable to me, the teaching assistants, the students, and the School of Music. The hardware we purchased with the grant funding is holding up nicely. Our software licenses are ending in July, but next year the students will be able to purchase student subscriptions for only \$40 per year. Since we are going to use the software in MUSC 115/116, and their companion courses MUSC 117/118, the return on investment is undeniable.

Finally, I wish to thank the other members of my cohort, and those at the CTE, particularly Ryan Rucker and Janet Hudson, who were immensely helpful during this past year.