

Collaborative Musical Analysis: The Integration of the Tablet PC into the Theory Classroom

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Abstract

The teaching of musical analysis has virtually remained unchanged for the past century. Students are required to look through the printed score while marking changes in key, form, and musical structure. The instructor must spend a significant amount of time guiding the student through the musical score, step by step. Students often have a difficult time maintaining placement in the score while the instructor is speaking. One of the greatest downfalls of this current system is the fact that the students are limited to the amount of music that they are able to focus on at a given time.

Over the past three years, the faculty at Appalachian State University has integrated the Tablet PC into the music theory classroom. Undergraduate music students now have the ability to create musical analysis files using the Tablet PC. A recent study at Appalachian State University examined the benefits of the Tablet PC in regards to collaboration and cognitive learning. A secondary goal of this study was to create an awareness regarding the benefits of the Tablet PC through an open-source website highlighting student musical analysis.

Stages of Implementation

- Single tablet used by instructor (Spring 2007)
- Tablets used in summer graduate course (Summer 2007)
- Tablets used in upper level undergraduate course (Fall 2008)
- Tablets used in multiple graduate and undergraduate courses (Spring 2009-present)

Funding

- Microsoft Tablet PC Award
- Appalachian Foundation Fellows
- Academic Affairs
- Hayes School of Music

Courses

- Theory III/Aural Skills III
- Theory IV/Aural Skills IV
- Theory V
- Analytical Techniques
- Pedagogy of Music Theory
- Choral Literature
- Marching Band Techniques

Images

Image 1: Traditional pencil mark up of a score. While the harmonies and modulations are indicated in the score, there is a lack of clarity in the presentation of the analysis.



Image 2: Tablet use in summer graduate course. All students were assigned an individual tablet in order to complete eight analyses during the course of the summer session. Students then posted their analysis to the course website.

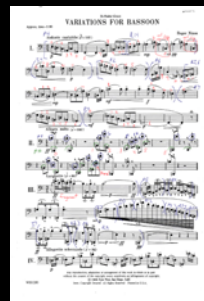


Image 3: Sample analysis of "Variations for Bassoon" by Roger Nixon. This analysis clearly indicates the composer's use of serial techniques. Analysis contributed by Talna Pasour, University of Massachusetts.

Image 4: Website developed by graduate course. Each composition includes a summary, multiple student analyses, and recording.

www.theorymuse.com

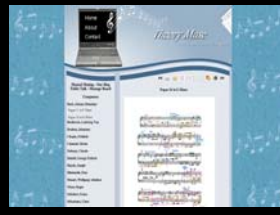


Image 3: Tablet use in fall undergraduate Theory V course. Students were each assigned a tablet and asked to complete various analysis projects in groups of three or four, both inside and outside of the class environment.



Image 4: Screenshot from DyKnow Collaborative software. This software was used for all collaborative analysis projects in Theory V.



Image 5: Screenshot from student analysis in theory V. Students were asked to submit panels individually during class period.

Image 6: Screenshot from DyKnow with new PowerPoint capabilities used in Theory IV. Students were asked to complete basic formal analysis and harmonic analysis within pre-set groups.



Conclusions

- Encourages collaborative learning both in and out of the classroom
- Students are more involved in discussions within the classroom setting
- Students are able to follow the instructor
- Students can now see the big picture of music, from the smallest details to the larger, structural design
- Students are given feedback in real time
- Instructors can save graphic analysis for next class period or send analyses to students via e-mail
- Accountability from the students
- Instructors can grade directly on tablet and e-mail or IM students results
- Significant changes in classroom participation and discussion

"Comparing student work led to discussions of strategy, vocabulary and context - bringing them to see multiple vantage points of the same passage. This high level of risk taking and ownership in the learning process is rare in the traditional classroom..."

(Dr. Susan Piagentini, Northwestern University, Lead Evaluator for Microsoft Study)

Future Plans

- Participate in a DyKnow/Microsoft Case Study
- Develop and publish articles regarding usage of tablets
- Create a collaborative classroom with another Tablet University for music analysis
- Secure funding for Tablet upgrades by 2011
- Develop summer TiME workshops for K-12 teachers in music pedagogy and technology

Acknowledgments

The researchers would like to thank the following individuals and corporations for their valuable assistance:

- Microsoft, Inc.
- Dell Computers
- Dynamic Knowledge, Inc.
- Alex Newton, Former Undergraduate Assistant
- Talna Pasour, Former Undergraduate Assistant
- Charles Meadows, Former Graduate Assistant

For further information

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