Extending the Use of Technology as a Practical and Creative Tool for Faculty and Students

Pre-Conference Workshop for the National Association of Schools of Music

The Role of and Responsibility for Technology in Music Literature and Appreciation Classrooms

Using Technology in the Music Classroom

- Purposes
    - pedagogy
    - building a sense of community (really!)
        - using group activities
        - *more* student-instructor interaction
        - virtual discussions online
    - altering the roles of instructor & student
    - taking learning & practice outside the classroom
        - providing supplementary materials
        - demonstrating hard-to-comprehend musical concepts

Technology Evaluation – Survey

2-year time period from Fall 1999 to Summer 2001

- Survey Items

    General Assessment
    1. This course covered the material I expected based on the catalog description & course syllabus.
    2. I successfully learned what I expected to learn in this course.
    3. I liked the textbook for this class.

    Class Format
    4. **I liked the format of this class (i.e., the manner in which lecture & group activities were integrated).**
    5. **I liked the manner in which technology was utilized by the instructor in the presentation of course content.**
    6. **The use of *TimeSketch* and the *Shockwave* animations assisted me in understanding the musical concepts presented in class (e.g., musical form, meter, beat subdivision, etc.).**

    Learning
    7. **I benefited from the group activities in class (e.g., group RATs, discussions, etc.).**
    8. **I learned a lot from preparing our group presentations (Brief & Final).**
    9. **I learned a lot from listening to other group presentations (Brief & Final).**
    10. **I benefited from the group activities online (e.g., Bulletin Board discussions).**

    Ease of Use
    11. **I feel comfortable using technology (e.g., computers, the internet, email, etc.).**
    12. **I found that accessing the web page for this course was easy and intuitive.**
    13. **Overall, the use of WebCT enhanced my learning experience.**

    Specific WebCT Modules
    14. I found the "Course Content" section of WebCT to be useful.
    15. I found the "Calendar of Events" section of WebCT to be useful.
    16. I found the "Grade Report" section of WebCT to be useful.
    17. I found the "Private Mail" section of WebCT to be useful.
    18. I found the "Bulletin Board" discussion group section of WebCT to be useful.

    Other? (open-ended question)

Benefit
19. **In a general sense, I believe that I benefited from exposure to technology in the context of this course.**
20. In comparison to other classes I have taken at UTSA, the individual assignments, group presentations, exam preparation, and WebCT required in this class took too much time.
21. **I would recommend this course to another student.**

Access to Materials
22. I accessed WebCT from … [Home – On Campus – Both]

Mean Scores (across all classes)

rated on 6-point scale; where 0 = disagree strongly and 5 = agree strongly

Evaluation Response Means
(Entire Data Set)
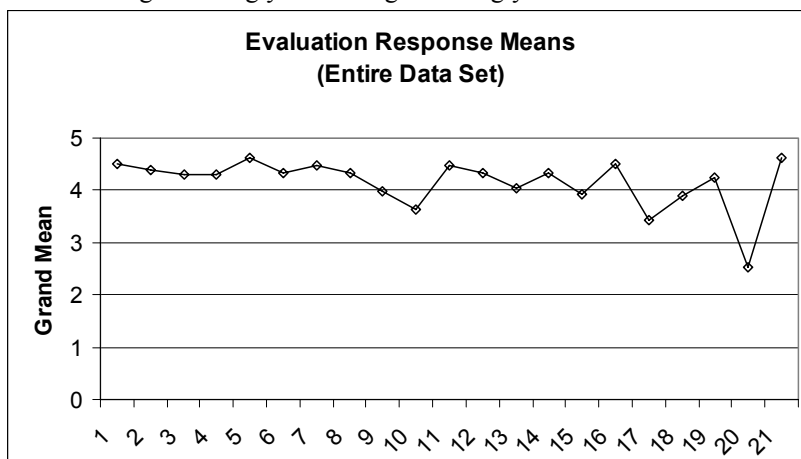
Introduction to Music, History of Rock, Music Literature, and Music & Mind (My Own Classes)

As you review the various materials below, you will find that some documents are stored on password-protected servers (Blackboard sites). If you would like to see these online materials, contacts for gaining a temporary username & password are provided in the "Technology Resources" section near the end of this document.

- Music Literature & Music Appreciation (*RealMedia* and *MP3*)
  - o Table of Contents
  - o Musical Form – Sonata Form Template (*Director* and *TimeSketch*); for these examples, make sure to wait until the Shockwave movie is completely loaded
    - ▪ Mozart's *Eine kleine Nachtmusik*, 1st movement (2.3 MB)
    - ▪ Haydn's *Symphony No. 88*, 1st movement (3.3 MB)
    - ▪ Beethoven's *Symphony No. 5*, 1st movement (3.5 MB)

  - o Crossword Puzzles – The Baroque Era #1

- History of Rock (GEN_MUS 175-0)
  - Table of Contents**HR**
  - Animations
    - Meter & Beat Subdivisions**HR** (*Director*)

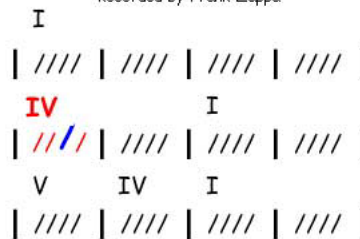### Born to Run
Performed by Bruce Springsteen
--quadruple meter

1 2 **3** 4

Stop

    - Musical Form
      - 12-bar Blues**HR** (*Director*)

Directly From My Heart to You
Recorded by Frank Zappa

I

| //// | //// | //// | //// |

IV   I

| //// | //// | //// | //// |

V   IV   I

| //// | //// | //// | //// |

Stop

      - strophic form**HR** (*Director*)

      - verse/chorus and more complex forms (*TimeSketch*)

Paul McCartney's Recordings of "Yesterday"

Studio Recording from "Help!" (July 14, 1965)

Intro   Verse 1   Verse 2   Bridge   Verse 3   Bridge   Verse 4   Coda

Suddenly, I'm not half the man I used to be ...

- Music & Mind (GEN_MUS 175-0)
  - Demonstrations (*Director*)
    - Waveform Builder**MM** – download [Windows (2 MB) | Mac (2 MB)]
    - Gestalt principles**MM** – 3.1 MB
    - stretched octaves**MM**

Music Theory at NU (Cynthia McGregor & Sue Piagentini)

MUS_THRY 111-1 (Theory I) and 211-1 (Theory II)

- Course Packet – interactive electronic format (click on image to hear MIDI file)
  - Heuristic Guide[MT2]: (MIDI playback)

- Skills Tests
  - Theory I – Skills Test 1
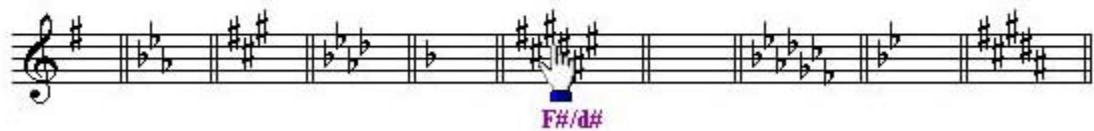   - Basic Note Reading[MT1] (*Flash* – rollover note for answer)

  - Theory I – Skills Test 2
    - Practical Advice: Circle of Fifths [MT1] (*Flash* – rollover text for answer)
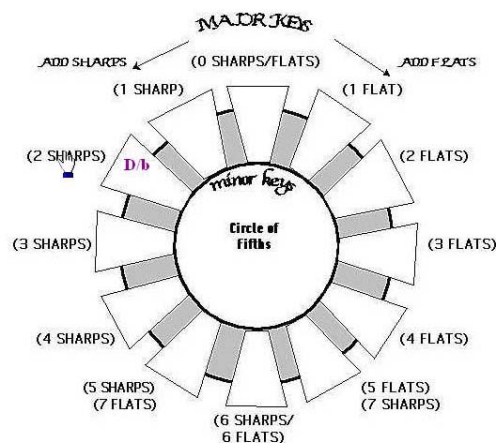
- practice test [MT1] (*Flash*)

Fall Quarter 2002 Key Signatures - Skills Test #2

Identify the major and minor key pair for each
key signature. Pass your cursor over each example
to check your answer.

F#/d#

o Theory I – Skills Test 3
  - Uninflected Intervals [MT1] (*Flash*)

Skills Test 3: Fall Quarter Uninflected Intervals
Type in the quality and size of each interval in the answer boxes.
When you are finished, pass the cursor over the interval to reveal the answer.

M6

| Answers: | P5 | M6 | M2 | m6 | P4 | M3 | m3 | M7 | M2 | d5 |

o Theory II – Transposing Quiz – woodwinds & brass (rollover blank staff for answer)
  - tutorial [MT2]
  - practice [MT2] (*Flash*)

Transposing Brass

What's up with key signatures?

When you are transposing to concert pitch, you can either write in key signatures (which is probably easiest) or use accidentals if the key isn't obvious (like the final Bb
trumpet example below). Figure out the key signatures the same way as the woodwinds above.

- [Orchestral Score Reading](#) **MT2** (*Flash*)

The score in C already as the appropriate key signatures, but the others are up to you to figure out (roll over the image to check yourself). How do you figure out key signatures? What about the brass instruments?

- [Scanned Scores](#) **MT2** (*Adobe Acrobat* PDFs)
- Links to streaming RealMedia Sound Files (*RealMedia*)
  - [Theory I](#) **MT1**
  - [Theory II](#) **MT2**
- Skills Tests – Skills Test 4
  - [Interactive Practice Tests](#) **MT2** (*Flash*)

- o [Application to Analysis & Performance](#) ^{**MT2**}

Practical Practicing for Skills 4

Excerpt 1 from Brahms's *Intermezzo* Op. 118 no. 2

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Look at the following excerpt, and identify any chromatic chords that appear on Skills 4
(Neapolitan Chord, Augmented Sixth Chord, or Mode Mixture).
To check your answer, roll over the image itself.

PLAY
NEXT

- o also available for printout (*Adobe Acrobat* PDFs)
  - ▪ [Skills Test 4](#) ^{**MT2**}
  - ▪ [Skills Test 4 – keys](#) ^{**MT2**}
- Aural Skills
  - o [basic chromatic progressions](#) ^{**MT2**} (click notation to play MIDI file)

Beginning Chromatic Harmony

1-6-4-5-1 and variations: Secondary Dominants

Now that you have experienced the models of tonal harmony, it is time to venture into progressions that use chromaticism as a way to embellish diatonic harmony.
You can hear any of the examples below by clicking on the image.

First, let us do a little review of 1-6-4-5-1 in diatonic harmony. Listen to the three progressions below. Each progression has an identical structure, but the pre-
dominant   cus on the *quality* chord (e.g., minor) as well as the outer voices.

All examples have the same bass line 1-6-4-5-1,
Just like model #3!

PLAY BASS LINE

- o [sample chromatic progressions](#)^{MT2} with hints (MIDI)

- • External Links
  - o list for [Theory I](#)^{MT1}
  - o pre-admission: Ricci Adams' Music Theory site (http://www.musictheory.net/)

No One Can Do It Alone!

UTSA – NU model: interaction between faculty members, information technology, & faculty development
- • Link Builder[1]
  - o [Music Theory Core](#)
    - ▪ [Request Form](#)
      - • audio recordings digitized by Music Library staff
      - • processed & uploaded to server by Digital Media Services (IT)
        - o also maintain & troubleshoot server
    - ▪ [Link Builder modules](#)
- • Online Music Research System – new project
  - o Music Experiment Design System (MEDS) – Dr. Roger Kendall, UCLA

Technology Resources

For temporary access to password protected areas of Blackboard at Northwestern University, contact instructor:
- • Scott Lipscomb (lipscomb@northwestern.edu)
  - o Music Appreciation(^{MA}), History of Rock(^{HR}), or Music & Mind (^{MM})
- • Sue Piagentini (s-piagentini@northwestern.edu)
  - o MUS_THRY 111-1,2,3 – Theory I (^{MT1})
- • Cynthia McGregor (CynMc@northwestern.edu)
  - o MUS_THRY 211-1,2,3 – Theory II (^{MT2})

The Association for Technology in Music Instruction
- • annual conference (held jointly with CMS) – Miami, FL from
- • web site – http://www.music.org/atmi/

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[1] These materials are currently available only to music faculty at Northwestern. However, if you or your colleagues are interested in seeing this example of an online technology assistant collaboratively created by Music Faculty and Academic Technologies (in NU's Office of Information Technology), I will be happy to speak with the appropriate person and attempt to provide you with a temporary password for viewing this area as well as those listed in the "[Technology Resources](#)" section.

eJournal – *Technological Directions in Music Learning* (http://music.utsa.edu/tdml/)
- proceedings from eight years of this international conference, hosted by the Institute for Music Research at The University of Texas at San Antonio
  - full-text articles on a variety of music technology topics
- additional peer-reviewed articles on various topics related to music technology and its use in the music classroom

Software Used to Create the Examples Referenced Above

- Multimedia & Animation
  - ECSMedia CD TimeSketch Editor – http://www.ecsmedia.com
  - Macromedia Director – http://www.macromedia.com/director/
  - Macromedia Flash – http://www.macromedia.com/flash/
  - RealMedia – http://www.real.com
- Cross-platform/cross-platform documents
  - Adobe Acrobat – http://www.adobe.com/acrobat/
- Research
  - Roger Kendall's Music Experiment Design System – http://www.ethnomusic.ucla.edu/systematic/Faculty/Kendall/meds.htm
- Templates to Download (Lipscomb) – Sonata Form, Meter & Beat Subdivision, and 12-Bar Blues (*Director 8*)
  - point your browser to http://faculty-web.at.northwestern.edu/music/lipscomb/, then click on "Other Stuff"
- Web Site Creation
  - Macromedia Dreamweaver – http://www.macromedia.com/dreamweaver/