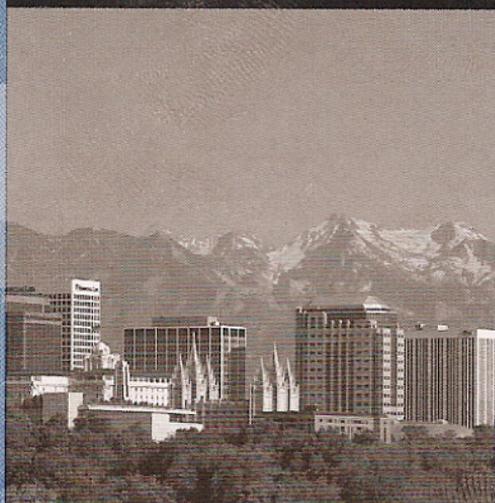


CELEBRATING

50

YEARS
OF SERVICE

1957 – 2007



The College Music Society
and the
Association for Technology in Music Instruction

National Conferences

November 15–18, 2007

Little America Hotel, Salt Lake City, Utah



THE COLLEGE MUSIC SOCIETY

ATMI

*Association for Technology
in Music Instruction*

PROGRAM

- Implementation of a University Music Technology Distance Learning Course*
Richard Repp (Music Industry Institute)
4:00 p.m.–4:55 p.m. **Sawtooth**
Exhibitor Showcase: Kelly's Music & Computers
- 4:00 p.m.–4:55 p.m. **Arizona**
ATMI Session: Workshop in Social Computing
Session Chair: Jane Kuehne (Auburn University)
Web 2.0 and Music Education: Tools for the Classroom and Studio
Kimberly James (The University of Montana)
- 4:00 p.m.–4:55 p.m. **Ballroom A-B**
Festival of New Music III
Festival Coordinator: Dennis Kam (University of Miami)
Dreams and Fantasies
by Mark Dal Porto (Eastern New Mexico University)
Representing the CMS Rocky Mountain Chapter
Mark Dal Porto, piano
- Pensees*
by Darleen Mitchell (University of Nebraska-Kearney)
Representing the CMS Great Plains Chapter
Andrew White, baritone
Robert Mitchell, tuba
Darleen Mitchell, piano
- Dreams, Op. 36*
by Deborah Netanel (Wright State University)
Representing the CMS Great Lakes Chapter
Miriam Kramer, violin
Deborah Netanel, piano
- Confrontation with God*
by Richard Williamson (Anderson University)
Representing the CMS Mid-Atlantic Chapter
Deidre Francis, soprano
Liz Austin, cello
- Sonata Innamorata*
by Douglas Ovens (Muhlenberg College)
Representing the CMS Northeast Chapter
Katharine Knight, cello
Douglas Ovens, piano
- 5:00 p.m.–5:55 p.m. **Sun Valley**
Annual Meeting of The College Music Society
Chair: Kathleen Lamkin (University of La Verne),
President, The College Music Society
- 5:00 p.m.–5:55 p.m. **Idaho**
ATMI Annual Business Meeting
Chair: Scott Lipscomb (University of Minnesota-Minneapolis),
President, ATMI
- 7:30 p.m. **Mormon Tabernacle**
Collaborative Concert: The Choral Music of William Walton
Crown Imperial
Jubilate Deo
Atiphon
Belshazzar's Feast
Brigham Young University and University of Utah Schools of Music
Martyn Brabbins, conductor
- * admission to this concert is free; however, tickets are required and must be ordered in advance via the conference registration form.
* Tabernacle doors open at 6:30 p.m.—please be in your seats 30 minutes before the start time

Implementation of a University
Music Technology Distance
Learning Course

Richard Repp, Ph.D.
2007 Association for Technology in
Music Instruction Conference
Salt Lake City, UT
November 17, 2007

Overview

- Review of previous research
- Research design
- Statistical findings
- Conclusions
- Warning!

Previous Research:

Development and Testing
of an Online
Music Technology Course

College Music Society
Southern Regional Conference
Miami, Florida
March 2, 2007

Background

- Enrollment gains
- Teaching load limitations
- Limited size of lab
- Need to teach advanced courses

Podcasts

- Recordings of lectures Fall 06
- ScreenRecord® software
- iSight camera for show and tell

Challenges in recording

- Awkwardness
- Who is the target audience, the class or the recording?
- Microphone does not pick up students
- Tethered to teacher's station
 - Fixing student computer
 - Silence on recording

Implementation of an Online Music Technology Course

Technical challenges

- Audio dropouts despite fast computer
 - Particularly on Audio software
 - Recorded safety audio to another computer
- QuickTime would not convert large files
 - Broke into segments for web
 - Placed segments in WebCT



Fall 06 formats for course alternated

- Live lectures
- Podcasts projected
 - Awkward for me
 - Ability to observe students reactions
 - Ability to help in real time
 - Great self-evaluation
- Podcasts on individual computers

Evaluation surveys

- Anonymous
- Given at end of semester
- Separate from normal evaluations
- Likert-type responses
- Reactions to anticipated positive and negative events gleaned from interviews

Initial conclusions

- Recording lectures was feasible, if not optimal.
- Prerecorded lectures would have produced a better result
- Students were accepting of the recorded lectures, but preferred live lectures

Current research Spring 2007

- All lectures given in podcast format
- Attendance required
- Students worked at their own pace
- Instructor available for questions

Comparison groups

1. Spring 2006, all live lectures
2. Fall 2007, mix of live and podcast
3. Spring 2007, all podcasts

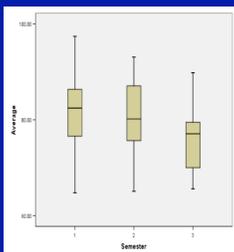
All other class procedures remained the same.

Measurements

- Course success measured by class grade (ANOVA, all groups)
- Attitude measured by survey (t-test, groups 2 & 3)
- And class evaluations (comparison of data from forms)

Course averages

Group	Mean (Max. 100)	Std Dev.
1.	82.0	7.9
2.	80.7	7.5
3.	76.1	6.9



Results of Statistics

- ANOVA Significant difference between groups
($F=3.6$, $df=2$, $p<.034$)
- Where...

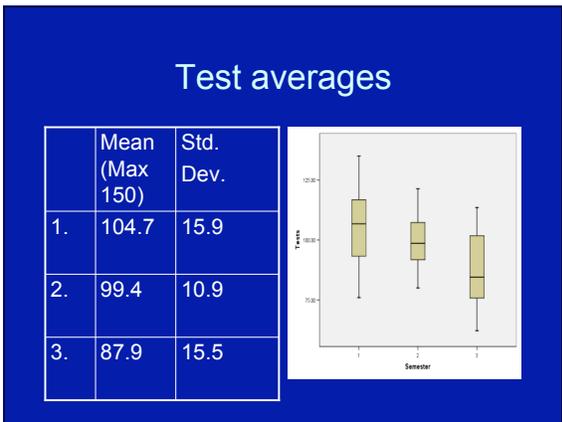
Tukey HSD

- Members of the live lecture group (1) scored significantly higher than the all Podcast group (3).

p<	1	2	3
1		.843	.034
2	.843		.115
3	.034	.115	

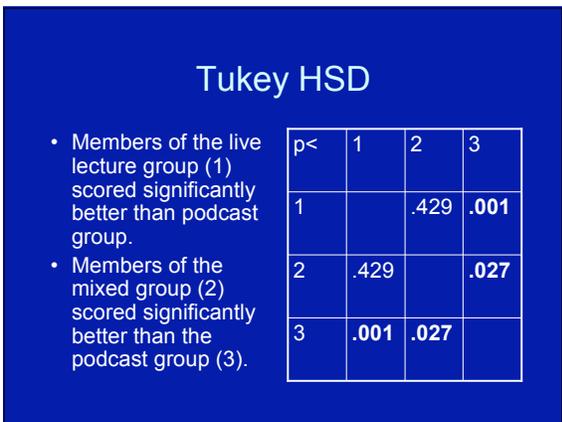
More analysis

- Grading consisted of Projects and Tests
- Sub-Hypothesis: Students in the podcast group C skipped the lectures and might have done poorly on the tests.



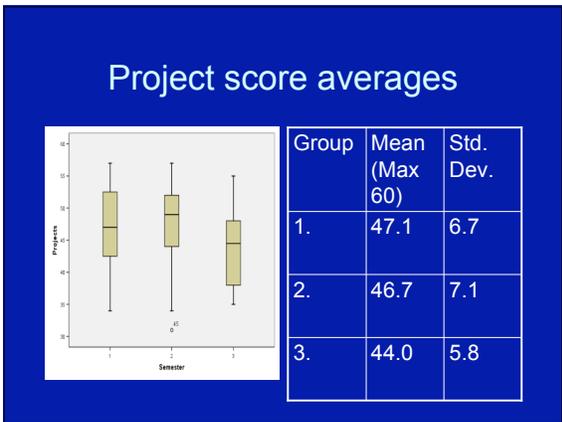
Results of ANOVA

- ANOVA Significant difference between groups
($F=7.7, df=2, p<.001$)
- Where...



Sub-Hypothesis 2

- Because the students in the all podcast group had more flexible time to spend on the projects, their project grades would be superior to the other groups.

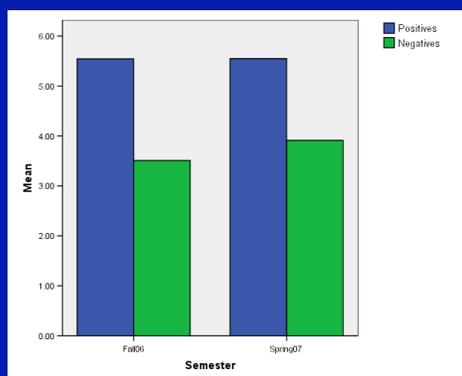


Results of ANOVA

- No significant difference among the groups.
- ($F=1.4, df=2, p>.260$)
- (No Tukey HSD necessary)

Attitude measure-in class survey

- Given only to groups B and C.
- Would not make sense to all lecture group
- Asked to agree with positive aspects of technology or negative aspects



Analysis

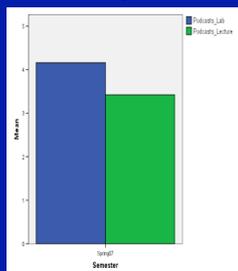
- Although the negatives were slightly higher for the podcast group, no significant differences existed.
- ($t = .839$, $p > .409$)
- Student comments were less positive generally than previous semester.

Attitude measure University course evaluations

- Instructor and course ratings for the podcast group were 0.7 points lower on a 5-point Likert-type scale
- Unacceptable result
- Statistical analysis impossible; no access to raw data
- Student comments very negative in this anonymous survey

In class survey questions for podcast group only

- How likely to watch lectures for tests
- How likely to watch lectures for projects
- Average slightly more than half of podcasts watched
- No significant difference



Conclusions

- Podcasts of live lectures do not lead to the same student success as live lectures.
- The chief weakness of podcasts is preparing students for tests.
- Student attitude seemed more negative for all-podcast classes, but attitude could not be proven statistically.
- The main reason for the weakness of podcasts is that students skip them, even if forced to be in front of a computer with adequate time.

WARNING

This study does NOT prove that distance learning is inferior to classroom instructions.

Distance learning necessities

- Live lectures may be too chaotic to make a good podcast.
- Distance learning courses need more feedback than traditional courses.
- In order to produce a meaningful statistical result, all other factors except for content delivery needed to be the same in this study.

Thank you

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