Fifth International

Technological Directions in Music Learning

a conference sponsored by

The Institute for Music Research

The Division of Music

The University of Texas at San Antonio

January 29 – 31, 1998

Omni Hotel
San Antonio, Texas
Friday January 30, 1998

1:30 pm  The Trials and Tribulations of Developing Cross-platform Multimedia Applications in Music Education
Scott D. Lipscomb
Institute for Music Research, University of Texas at San Antonio

2:05 pm  Demonstration of a Microtone and Brain Wave Generator
Wayne J. Kirby
University of North Carolina at Asheville, Recording Arts Program

2:40 pm  Two Solutions to the Problems of Piano Reductions in Instrumental Concerto Accompaniments
J. David Morris
Valdosta State University, Department of Music

Technology in General Music Education II

3:15 pm  Hearing Theory: Improving Aural Comprehension of Part-writing with Commercial Notation Software
David Feurzeig
Centre College; Danville, Kentucky; Department of Music

3:50 pm  Pre-service Music Teachers’ Attitudes Toward an Internet-based Presentation of the McClosky Technique for Vocal Relaxation
Richard Repp
University of Illinois, Urbana

World Wide Web, the Internet, and Distance Learning II

4:25 pm  Adding Interactivity to Web Pages for Music Education
Steven G. Estrella
Temple University, Computer/Media Services

5:00 pm  Web-based Instruction in Error Detection
Cynthia I. Gonzales
University of Texas at Austin, School of Music
Pre-service music teacher attitudes toward an Internet-based presentation of the McClosky technique for vocal relaxation

Richard S. Repp
Technological Directions in Music Learning,
5th International Conference
San Antonio, Texas
30 January 1998

What is it?
Open and close your jaw using your hand

David Blair McClosky

Need

• Computers
  – Otto (1992)
  – Simpson (1996)
  – Higgins (1991)
• Voice
  – Smith, Gray, Dove, Kirchner, and Heras (1997)
  – Chan (1994)
  – Gotias and Starr (1993)
  – Kaufman and Johnson (1991)

Topics addressed

• attitudes toward the McClosky technique
• attitudes toward educational technology
• how teaching experience, experience with technology, and vocal training correlate
• incorporation of these techniques into their daily phonation
• evaluation of the presentation as a representation of the subject matter
• a discussion of World Wide Web (WWW) pages

Related literature

• Freeman, Syder, and Nicolson (1996) designed a multimedia tutorial for students of voice therapy.
• Maurer and Simonson (1993) examined anxiety and the relationship of previous coursework, relaxation exercises, and achievement.
• Ester (1994) developed a HyperCard stack called Hyper Vocal Anatomy to teach laryngeal anatomy to undergraduate music majors

Research methodology

• quantitative and qualitative techniques
• descriptive paradigm
  – No control group
Pre-service music teacher attitudes toward an Internet-based presentation of the McClosky technique for vocal relaxation

**The subject group**
- undergraduates in a choral methods for instrumental majors course
- no voice majors
- N=28

**Prior to the study the materials were evaluated by experts**
- in educational technology,
- in the McClosky technique,
- and in music education.
- The pages were pilot tested by undergraduate music majors similar to those in the subject population.
- Statistical procedures were verified by an expert.

**Within the WWW presentation**
- a presurvey WWW form

**The presurvey gathered demographic information**
- vocal training
- experience with technology
- teaching experience
- attitudes toward educational technology

**Attitude measures were in the form of Likert-type responses,**
- with a suggested rubric for each response
- text blocks were added to allow for open-ended responses.

**Data handling**
- WWW form
- Lasso
- Filemaker Pro
- SPSS
The WWW presentation
- included demonstrative video clips,
- as well as text and graphics.

The participants were encouraged to incorporate the technique into their daily phonation for between one and two weeks.

The postsurvey
- reaction to the McClosky technique,
- report of the number of times the reader incorporated the technique
- reaction to the effectiveness of the presentation of the pages
- repeated questions from the first survey

Quantitative analysis
- a small increase (.18 on a 7 point scale, p<.05, N=28) in the mean scores attitudes of the respondents toward educational technology

Correlations
- Spearman rho technique (alpha <= .05, N=28)
- no significant correlation with technical experience
  - Surprising
- similar teaching experiences limited range of responses
- vocal training yield a low to moderate correlation with attitude toward the presentation of the WWW pages (rho = .38)

Technology and vocal techniques
- 46% changed their attitude
  - 25% improvement
  - 21% worse attitude
- domain specific information highly individualized
- or question not clear
Promising

- Seventy-one percent of the respondents practiced the technique more than once.

Attitude toward technology

- moderate correlation (rho = .50) with the number of times the technique practiced
  - even though there was no need to use the computer to practice the technique.

Reaction to the McClosky technique

- correlated low to moderately (rho = .39) with the attitude toward the WWW presentation
  - presentation affected response toward subject matter
  - or more supportive people gave higher scores to both

Paper or plastic?

- 18% Paper
- 32% No preference
- 50% Preferred the on-line version

Those preferring a printed version

- access problems
- embarrassment in performing the technique in a lab setting.

Those with a preference for the computer

- video
- interactivity
- ease of use
Analysis of the open-ended responses

• computers were important to music education
  – some doubts exist as to whether the computer can teach something as intimate as the McClosky technique.

Reaction to the technique itself

• mostly positive responses.
• negatives:
  – made them feel uncomfortable
  – not sure if they were "doing it right"

Some participants did not feel the technique was useful to them as non-singers

• despite the fact that as future teachers they will be high-risk voice users.
• Disappointing

Comments on the technical side of the presentation

• mostly positive
  – positive comments on the use of graphics.
• negative comments
  – general dislike of computers
  – download time for the video clips

Video

• Those who took the time to download the video found it effective in teaching the technique.
• Problems
  – bandwidth problems
  – crashes

Conclusions

• a change in attitude toward educational technology
  – despite short time period
• no meaningful correlations
  – small sample size
  – homogeneous group
• incorporation into daily phonation
Pre-service music teacher attitudes toward an Internet-based presentation of the McClosky technique for vocal relaxation

### Technical conclusions

- moderately effective method version
  - not reflect as consistently positive attitude as one-on-one teaching
- Attitude WWW pages can be improved
  - liberal use of graphics
  - minimizing download time
  - avoiding cutting-edge technologies

### Final word

- The Internet is here to stay
- more study needed
  - not just development

### References