
Teaching Music With Technology

A Concept Whose Time Has Come

Thomas Rudolph, Ed. D.

Director of Music

School District of Haverford Township

Email: TERudolph@aol.com

presentation slides available at:

www.tomrudolph.com/handouts

Results of using technology

Training 4000+ music educators:

1. Productive tools for teachers
2. Creative, performance and learning tools for students
3. Not a panacea

Joke: jazz improve materials - no longer need to use the CASE OF BEER method

TI:ME courses - teachers are asked to:

Conservatively indicate the percentage of increase in your teaching effectiveness that you foresee as a result of taking this course - from 0% to 100%. With over 1,000 teachers, the average predicted increase in effectiveness is 52%.

Take technology training - to increase your effectiveness by more than 50%

Peter Webster quote:

In his research, Dr. Peter Webster reviewed the current state of music technology and in his summary of research on music education states:

“So, is music technology effective and is it worth the trouble? On balance and on a very basic level, the answer to this question is yes. Does music technology hold the key for solving all our music teaching problems? Of course not. Are there abuses in its use? Absolutely. Does it always improve learning? No, much depends on the context--especially the teacher and its use instructionally. Is it worth the trouble to keep studying its role in music teaching and learning? Unconditionally, yes.”¹⁵

Dr. Peter Webster's Research:

“So, is music technology effective and is it worth the trouble? On balance and on a very basic level, the answer to this question is yes. Does music technology hold the key for solving all our music teaching problems? Of course not. Are there abuses in its use? Absolutely. Does it always improve learning? No, much depends on the context—especially the teacher and its use instructionally. Is it worth the trouble to keep studying its role in music teaching and learning? Unconditionally, yes.”

The music curriculum of the future:

- Performance ensembles (performers):
 - About the same (chorus, band, orch.)
 - Students/teachers using technology to enhance learning, creativity, practice and performance.
- General music classes (consumers)
 - Incorporate technology as tools (crayons) for music education: electronic instrument labs, computers, internet, and multimedia.

(show slide)

- Dr. Ken Raessler - Performers and the Consumers....

- Dr. Tim's comment - under 10% play in a performing ensemble - if all schools are included, less than 1%.

Technology and the Indiana State Standards....

<http://doe.state.in.us/opd/finearts/welcome.html>

Evaluate: will technology make a difference and is it worth the investment in time, training, and money?

TI:ME Salute to...

Sarah Fronczek

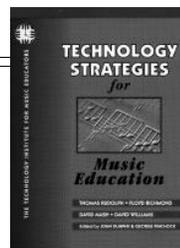
fronczek@doe.state.in.us

- Indiana Fine Arts Consultant
- Member TI:ME National Advisory Board
- Develops and supports technology workshops on an on-going basis



The 6 areas of technology as defined by TI:ME:

- 1. Electronic Instruments
- 2. Music Production
- 3. Music Notation Software
- 4. Instructional Applications
- 5. Multimedia
- 6. Productivity Tools, Classroom and Lab Management



The Technology Institute for Music Educators
www.ti-me.org

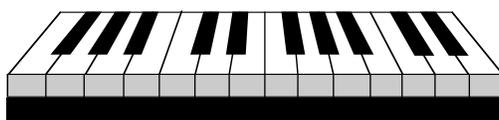
The Strategies book by Rudolph, Richmond, Mash and Williams

TI:ME an exciting organization that I am proud to be one of three directors.

1. Electronic Musical Instruments

■ May Not:

- Replace acoustic instruments
- Replace existing ensembles (band, orchestra)



Replace Acoustic instruments:

- Story about the marching band and the big kid carrying the CPU instead of the bass drum

Replace missing instruments:

- Story about the Esto Festival - 35,000 voices, full orchestra and MIDI timpani.

1. Electronic Musical Instruments

■ May be used...

Perform; Read, Improvise, Compose

- As a versatile classroom performance instrument for the consumers
- As crayons for music education
- Replace missing instruments in ensembles
- Used in labs for performing, creating and improvising music
- Performance Ensembles - electronic and electro-acoustic ensemble



I read a fascinating book, *When Things Start to Think*, by Neil Gershenfeld who is the co-director of the MIT Media Laboratory Things That Think Research Consortium. In this book he states:

“It used to be that people played music, because that was the only way to hear it. When mass media came along, society split into a small number of people paid to be artistically creative and a much larger number that passively consumes their output. Reducing the effort to learn to play an instrument... points to the possibility that far more people will be able to creatively express themselves. Improving the technology for making music can help engage instead of insulate people.” page 43.

2. Music Production

Improvise, Compose, and Arrange

■ **Applications:**

- To create accompaniments for ensembles
- Create practice recordings for students
- A student's tool to compose and arrange music (reading music not required)

Teaching Music With Reason

<http://www.propellerheads.se/products/reason/teaching/index.cfm?fuseaction=displaymain>

The digital multi-track recorder.

Create practice tapes - the most popular medium in the home is the cassette and CD player. Create custom tapes cassettes and send home for practice.

Hot Cross buns with a rock and roll beat.

Story: I Didn't know you were a professional!

Student effect of using a sequencer: Now I practice 4 times as much - I'm up to 12 minutes a day!!

2. Music Production

Listen, Analyze, and Describe

Improvise, Compose, and Arrange

■ **Digitized Media**

- Digital recording software
- Self-contained recording devices
- Burning Practice CDs
- Working with Digital audio in HS Electives
- Developing a School Record Label

Read: Scope and sequence from page 16 of the Teacher's guide -

Grade 1 = play a song file, stop a song file, change tempo

Grade 3 = set a tempo change, change instruments

Grade 6 = make rhythmic changes to a track; transpose an individual instrumental track; copy an instrumental track.

3. Music Notation Software



*Read, Notate, Improvise, Compose,
and Arrange*

■ Applications:

- A teacher's tool - arranging, composing and writing warm-ups and methods
- A student's virtual staff
- Used in the computer lab or MIDI lab to enhance creativity



Story - only print four parts - French Horns play any line that they want.

Take classes to the computer lab to compose melodies.

3. Music Notation Software



■ Tools:

- Free music software NotePad
 - www.finalnotepad.com
- Sibelius Notes
 - <http://www.sibelius.com/products/notes/>
- Sibelius 4 - 1700+ teacher worksheets

3. Music Notation Software



■ Web Applications

Downloading MIDI files

- Classical MIDI Archives
www.classicalarchives.com
- Choral Public Domain Library
www.cpdل.org
- Posting Notation files in Web Pages
 - Sibelius Scorch www.sibelius.com
 - Vermont MIDI Site www.vtmidi.org

TI:ME Salute to...

Beth Pickard

- TI:ME Certified Instructor
- IUPUI Instructor of Music Education
- IMEA Technology Chair



4. Instructional Software: practice and accompaniment

Sing, Perform

■ Practice and Accompaniment

- Band-in-Box www.pgmusic.com
- SmartMusic www.smartmusic.com



■ Web Delivery

- Band methods online
- Practice online
- www.tomrudolph.com/haverfordjazz

Joke - I now practice 4 times as much - I'm up to 12 minutes a day

joke about more tubas.....sousaphone/saxophone

4. Instructional Software: Computer-Assisted Instruction

Read, Notate

Listen, Analyze, and Describe

■ Applications

- Enhance independent learning
- Provide a motivational drill and practice medium:
music games
- Individualized instruction.



- provide students and teachers with a way to learn about all areas -

- Learning about Opera;
Opera/Oprah story.

4. Instructional Software: Computer-Assisted Instruction

- Interactive software
 - www.harmonicvision.com
 - www.pianomouse.com
- Web delivery
 - www.creatingmusic.com
 - www.musictheory.net

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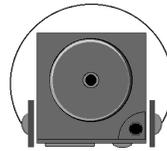
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5. Multimedia

Connect

■ Applications:

- Provide a medium for curriculum integration
- Produce digital media projects
- Author web pages



- Have you ever created a multimedia document? Combining text, with pictures and sound.

Multimedia can be an excellent tool for Curriculum integration:

Engage students in projects requiring knowledge and skill across several traditional content areas.

Use assessments that allow students to demonstrate knowledge and skills from several traditional subject-matter areas.

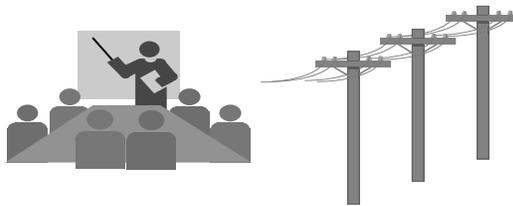
Excellent tool for Authentic assessment.

5. Multimedia: Internet

Connect

■ Applications

- Link students and teachers to information throughout the world - The ultimate communication tool
- Provide a communication medium: web pages, e-mail, MIDI files, distance learning



- ? many have an email address?
- Kids and the internet - What's a Patio
- County Band - 8th grade - I got a cute girl's number - turned out the number was her email address - in 2-3 years every student in your class will have an email address.
- provide you and your students with a tool to search for information on composers.
- (# 9 Music in relation to history and culture)
- A source of interactive lessons on music theory, jazz and other topics.
- Help you to communicate with parents and students
- contact other music teachers - join a Listserv or Newsgroup
- Post a web page about your department - performance dates
- through Distance learning open up new avenues for students.

be Careful: the ww.whitehouse.com....

5. Multimedia: Internet

Connect

■ WebQuest

- Use the internet to explore historical background of composers

http://metmagazine.com/mag/wonderful_world_webquests/

■ Podcasts – www.podcast.net

- attend Jim Frankel's session today

TI:ME Salute to....

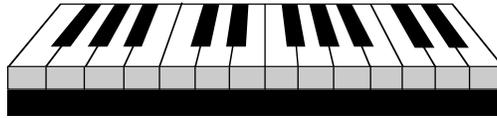
Dr. Tim Brimmer

- Butler University: music education, technology, conductor of Jordan Jazz
- TI:ME Advisory Board Member
- Clinician, Presenter



6. Productivity Tools, Classroom and Lab Management

- Manage daily work more effectively. 
- Develop a basic understanding of computer systems and concepts.
- Teaching in a technology facility requires technical knowledge.



Need to have experience in this area...

Reference Publications...

- **TI:ME Publications** <http://www.ti-me.org/findpublications.html>
 - Technology Strategies for Music Education
 - Technology Guide for Music Educators
- **Strategies for Teaching: Technology**
 - www.menc.org
- **Teaching Music with Technology, 2nd edition (Rudolph)**
www.giamusic.com
- **MENC Opportunity to Learn Standards for Music Technology**
(www.menc.org/publication/books/techstan.htm)

Training and Support

- Seek out training in technology
 - Technology Institute for Music Educators (list of courses will be posted after January 1, 2007)
(www.ti-me.org/ti-me/summer.html)
 - Attend a TI:ME National or Regional Conference
- Join Music Education Technology Organizations:
 - TI:ME (www.ti-me.org)
 - ATMI (www.music.org/atmi/default.htm)
- Read *Music Education Technology Magazine* (free) www.metmagazine.com

Action steps...

- Focus on how to use technology in innovative and productive ways.
- Investigate how to integrate technology into the music curriculum.
- Seek out funding through technology budgets and grants.

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