

Teaching Composition with Technology: Lessons That Work

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<http://MusicEdTech.com>

“Teach music. The technology will follow.”

Definitions:

- **MIDI** stands for Musical Instrument Digital Interface. It is a standard digital code developed by instrument manufacturers that allows electronic instruments to communicate with each other and with a computer. Today’s sequencers can convert MIDI information into audible sounds, standard music notation and even into a sound wave (audio).
- **Audio** is a recording of a live instrument, voice or any sound.
- A **region** is an encapsulated area where musical information, MIDI or audio, can be captured and then copied, pasted, moved, manipulated and looped.
- **Loops** are prerecorded regions that come with software or are user created.
- **Looping** is a programs ability to automatically copy and paste regions

Audio Tools and Mixing Basic Definitions:

- Panning: moving sound across a linear spectrum, right to left ear
- EQ: equalization: manipulation of specific frequencies or ranges of frequencies
- Frequency: how often sound waves per second, measured in Hertz or kiloHertz (Hz or kHz), pitch
- Amplitude: Height of the sound wave, volume
- Compression: reduction of amplitude (volume) of sound waves above a specified level. Reduces dynamic contract so louder sections can be made softer and softer sections can be made louder.
- Reverb (reverberation): as an effect, simulates a room

Sites for Information:

- Propeller Head Record U : http://www.propellerheads.se/substance/record-u/index.cfm?fuseaction=display_main
- PreSonus Learn: <http://www.presonus.com/community/learn>
- Rode University: <http://www.youtube.com/rodemicrophones>
- Five Minutes to a Better Mix: <http://therecordingrevolution.com/5minutes/>

Articles:

- Tips on Clarifying Your Sonic Imagery: http://tweakheadz.com/pan_control.htm
- The Music Mixing Process: <http://www.music-production-guide.com/music-mixing.html>
- The Art of Panning: <http://www.teachmeaudio.com/production/mixing/4-techniques/11-art-of-panning>
- Basic Guide to Understanding EQ: <http://www.bhphotovideo.com/find/newsLetter/Understanding-EQ.jsp>
- Learn EQ by PreSonus: <http://www.presonus.com/community/Learn/Equalizer-Terms-and-Tips>

Handout by Barbara Freedman barb@MusicEdTech.com <http://MusicEdTech.com>

- What is Compression: <http://aidermusic.com/compression-pt-12-what-is-a-compressor-199>
- Dynamics Processing by PreSonus: <http://www.presonus.com/community/Learn/Dynamics-Processing-Terms-and-Tips>

Books:

- *The Art of Mixing: A Visual Guide to Recording, Engineering, and Production* by David Gibson published by ArtistPro Publishing
- *The Mixing Engineer's Handbook* by Bobby Owsinski published by Thompson Course Technology
- *Audio Mixing Boot Camp: Hands-On Basic Training for Musicians (Book & DVD)* by Bobby Owsinski published by Alfred Publishing

Courses:

- Berklee School of Music: <http://bit.ly/10PJvJ5>
- Dubspot: <http://www.dubspot.com/>
- Point Blank: <http://www.pointblanklondon.com/>
- Macprovideo.com: <http://www.macprovideo.com>

Other Resources for Technology in Music Education:

- TI:ME: Technology Institute for Music Education <http://www.ti-me.org/>
- Music Teachers Facebook Group: <https://www.facebook.com/groups/musicpln/>
- Teaching Music Through Composition Facebook Group: <https://www.facebook.com/groups/597014760343702/>
- Artist House Music <http://www.artistshousemusic.org/>

Please contact me for the following services:

Consulting:

- Curriculum development
- Building and outfitting labs & studios

Professional development, faculty workshops, and online courses:

- Technology integration and training for general education teachers including Google products integration and Learning Management Systems including Schoology, Canvas, Moodle, and Blackboard
- Technology integration and training for music teachers including specific software
- Music composition for grades 5 – 12 educators
- Audio engineering for music educators
- Please ask me to develop a workshop for your district's needs!