Technology in Music Education

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Technology has been a major influence in music for hundreds of years, and is extremely useful in the education of music from the start. The printing press was perhaps the largest reason for widespread music education, and now new technology can be used to teach music in rhythm, note recognition, and testing from day one.

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The use of technology in music allows a more efficient instruction of basic music fundamentals through the use of practice and drill type scenarios that create a strong knowledge of rhythm and note recognition. Technology allows easier creation of handouts and presentations that can further aid in the instruction of any musical idiom. While technology easily aids in instruction, it also aids in learning.

Students can use technology to further aid their learning of music. Students can record their own performances and listen to them to identify strengths and weaknesses. Students completing assignments can use programs to enter music so that it is more legible, and easily corrected and published. Students who need more help have a variety of practice software available to them to aid in rhythm and pitch recognition. Advances in publications and archiving make research much easier so a student can find what they need faster and easier.

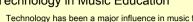Technology also allows programs with smaller budgets to purchase expensive items like pianos and double basses by purchasing technology driven, much less expensive keyboards and amplified bass guitars.

Key Words: Music, Technology, Education

Using Technology for:

Teaching music basics

1. Rhythm – Slide shows with sound allow the class to practice rhythm together

2. Note Recognition – Testing software to aid pitch recognition

Pitch Training

CDs containing pitches to play in tune with

Music Composition

Software aids in composing and printing music

Music Recording

1. Students can record themselves and play it back to listen for errors

2. Recording music is a huge professional industry that we can prepare them for.

How Technology has helped music

- Printing music for wide distribution and instruction
- Recording music for wide distribution and use

Amplifying music

- easier sound production for large groups
- cheaper and more portable to use an amplified keyboard or bass than an acoustic bass or piano.

Using Technology to Link to Other Content Areas:

English: Using search technology to find poems by various authors to use as lyrics

Math: Examining mathematical properties of music such as frequencies of harmonics
- Mathematical creation of secondary tones by computation and physical creation
- Computing intervalic Patterns
- Computing probabilities and statistical occurrences in music

Science: Examining wave structure of different instruments
- How instruments make sound
- Measuring structural forms effect on sound wave
- Measuring and changing sound pressure levels

History: Using searches and journals to trace evolution of music

Music Content Standards

1. Students sing or play on instruments a varied repertoire of music, alone or with others.
   Technology is needed to publicize music and can aid in teaching it.
2. Students will read and notate music.
   Technology is useful in notating music legibly and detecting errors, and well as learning to read it.
3. Students will create music.
   Students can use technology to create music, as well as record and listen to their creation.
4. Students will listen to, analyze, evaluate, and describe music.
   Technology is essential to bring music to all students without requiring all live performances.
5. Students will relate music to various historical and cultural traditions.
   Through technology aided research, students can more easily learn and make ties to other events and other cultures from one computer.

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