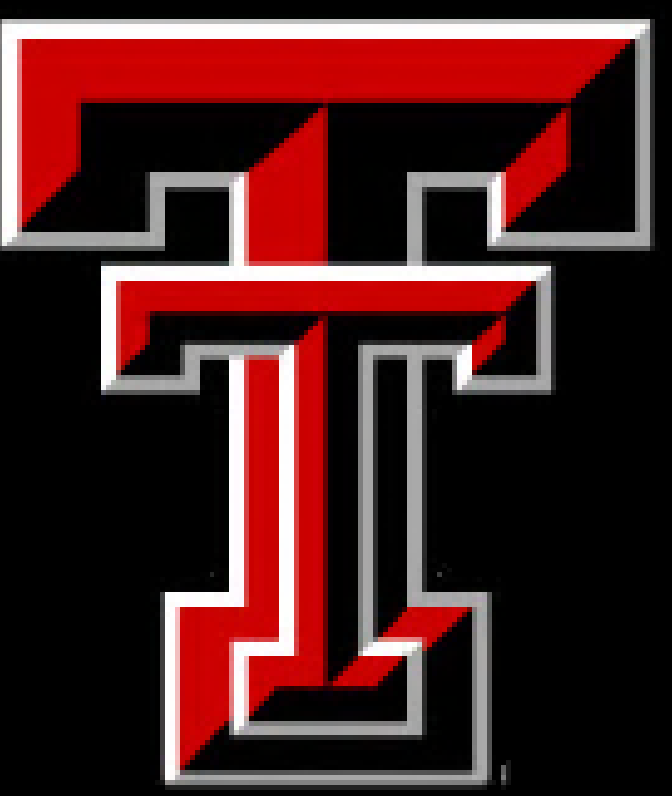


A Model for Teaching Timbre in Music Theory Class

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Introduction

In her 2024 TSMT keynote address, Megan Lavengood challenged us to incorporate timbre lessons into the undergraduate music theory sequence. Absent from most music theory textbooks, timbral studies invite students to actively engage with a broad range of musical styles. This project responds by proposing a lesson module that engages this growing field of research. Following the scholarship, the lessons focus primarily on popular music with some suggestions for application to other styles (Blake 2012; Heidemann 2016; Lavengood 2020; Malaway 2020; Nobile 2022). Designed for 1-2 weeks of instructional time, these lessons do not require special equipment or instructor training. The module focuses on sound-source identification, from which students may move on to more advanced topics such as spectrograms and studies in attack, sustain, decay, soundwaves, and overtones.

The activity sequence follows Bloom's taxonomy of the cognitive domain (Bloom 1956). Table 1 describes how the seven assignments of the module align with Bloom's cognitive levels. Also, many of the assignments build off current research, preparing students for direct engagement with the resources in the Works Cited. The assignments can be completed in class or for homework. The lessons begin with a 10-page textbook supplement that introduces some basic concepts and terminology from Malaway 2020 as well as listening examples of songs that isolate common timbres. Assignments 1-7 are excerpted below.

Assignment 1 serves as a reading check, asking students to complete fill-in-the-blank definitions.

Assignment 2 asks students to identify the timbres they hear in select songs by circling instrument names from a list.

Table 1: Bloom's Taxonomy and Lesson Sequence

Cognitive Process	Assignment
Knowledge	1 Labeling Timbres
Comprehension	2 Identifying Timbres
Comprehension	3 Identifying Vocal Timbres
Application	4 Scavenger Hunt
Analysis	5 Transcribing Timbres
Synthesis	6 Creating Timbres
Evaluation	7 Interpreting Timbre

In Assignment 3, students identify modifications in vocal timbres such as reverb, auto-tune, and switches between head and chest voice.



Assignment 4 asks students to find popular songs on their own that feature specific timbres. This assignment gives students agency to critically analyze their own playlists and sets up a show-and-tell exercise allowing students to share a bit of their personal listening habits.

1: Labeling Timbres

Read Transcribing Timbre and fill in the blanks with the appropriate terms.

- Originally employed to electronically correct out-of-tune singing, _____ was later used to create distorted vocal timbres.
- A _____ analyzes, filters, and processes a sound electronically and can give a singer's voice a computerized, synthetic quality.
- _____ is a term that describes singing with no instruments.
- _____ describes a process of recording multiple sounds on top of each other.
- _____ are synthesized sounds that layer many timbres on top of each other in a loud, punctuated, staccato pitch or chord.
- Electronically synthesized percussion sounds are produced by a _____.
- _____ describes an effect where sounds are immediately repeated in diminishing volume.
- _____ describes subtle, regular variation in a sustained pitch.
- _____ describes a thin, nasal sound in the top half of a singer's range.

Assignment 5 asks students to mark when they hear specific instruments in select songs.

5: Transcribing Timbres

1. Identify which timbres sound in each time segment by placing an X in the appropriate box. The first is done for you.

- "Come On Eileen" Dexys Midnight Runners, 1982

Time	Solo voice	Backup singers	Violin	Piano	Banjo	Brass	Bass guitar	Bass Drum	Snare	Cymbal
0:00-0:07			X							
0:07-0:28										
0:28-0:46										
0:46-1:25										
1:24-1:43										

2: Identifying Timbres

- Listen to each of the following songs and circle the timbres you hear.

"My Lovin' (You're Never Gonna Get It)" En Vogue, 1992 (0:00-1:00) (circle 4 timbres)
acoustic guitar, clean electric guitar, bass guitar, steel guitar, mandolin, piano, flute, saxophone, strings, brass, drum machine

- Write the instrument name from the timbre bank next to the time stamp that denotes its point of entry in the song.

"Danny's Song" Loggins & Messina, 1971
Timbre bank: acoustic guitar, backup singers, crash cymbal, electric bass, electric guitar (clean), electric guitar (distorted), flute, harmonica, hi-hat, kick drum, lead voice, piano, shaker, snare, violin, wood block

0:00 _____ 1:51 _____
0:04 _____ 2:05 _____
0:30 _____ 3:14 _____
1:13 _____ 3:41 _____

Assignment 6 gives students the opportunity to experiment with a range of vocal timbres. Modeled after Nobile 2022, the activity encourages students to explore how timbral changes can affect lyrical interpretation. Furthermore, following Heidemann 2016, it invites students to make physical connections with timbral effects.

6: Creating Timbres

- Listen to one of the song excerpts listed below and look up the lyrics online. "Ice, Ice Baby" Vanilla Ice, 1990 (0:16-0:50)
"I Got You (I Feel Good)" James Brown, 1965 (0:00-0:40)
"Walking on Sunshine" Katrina and the Waves, 1983 (0:17-1:06)
- Choose three of the characterizations listed below and sing, rap, or speak the first verse of your chosen song according to your chosen characterizations.
 - Singing to entertain a toddler
 - For use as political protest
 - Sharing exciting news in a library
 - As a boring professor
- With each characterization, use 2-3 sentences to describe the modifications you made to your voice. Focus your comments on timbral qualities such as vocal tension, breath, volume, shout/scream/whisper, prosody, intonation, dialect, etc.
- Describe how your timbral modifications affect the meaning of the lyrics. For example, do they reinforce or contradict the surface-level meaning of the words? Do the modifications imply sincerity or sarcasm?

3: Identifying Vocal Timbres

In each of the following excerpts, the singers switch between head voice and chest voice. Circle each of the notes that sound mostly in the head voice.

- "Backwards" Alexander Stewart, 2022 (0:00)



- "Nobody Else" Em Beihold, 2021 (0:32)



After the first six assignments, students should be ready to evaluate the timbral choices of other musicians. The first part of Assignment 7 has students assess relationships between timbre and narrative in select songs. The second part has students interpret how timbral changes in a song's cover affect narrative, meaning, and identity.

7: Interpreting Timbre

Below is a list of songs with the original artist and an artist that covered the song later. Pick one song from the list, look up the song's lyrics online, and listen to both the original and the cover while following the lyrics. Then answer the questions below.

- | | |
|--|--|
| "Everybody Wants to Rule the World"
- Tears for Fears, 1985; Lorde, 2013 | "Smells Like Teen Spirit"
- Nirvana, 1991; Tori Amos, 1992 |
| "Smooth Criminal"
- Michael Jackson, 1988; Alien Ant Farm, 2001 | "This Woman's Work"
- Kate Bush, 1988; Maxwell, 2001 |
- Describe how the timbral choices of the original song contribute to the communication of the song's lyrics and projection of musical style.
 - Describe how the timbral choices in the cover song alter, enhance, or reinforce the meaning of the original recording. Comment on choice of instruments, the singer's identity, vocal expression, and/or any other timbral observation.
 - If you chose to write your own cover that directly contradicts the original style and/or message, what timbral choices would you make?

4: Scavenger Hunt

- List three popular songs from three different decades that use an altered voice timbre such as vocoder, talk box, or autotune.

Song	Artist	Release Date	1 st altered voice sound

- List three popular songs from three different decades that use at least three kinds of guitars each (e.g. acoustic, clean electric, distorted electric, bass).

Song	Artist	Release Date	Guitar types

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Full Resources:

