

VIRTUAL ENSEMBLES

Dr. C. Floyd Richmond

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TARLETON
STATE UNIVERSITY
Member of The Texas A&M University System

Ohio Music Educators Conference

Cleveland, Ohio

2:00pm, February 3, 2022

<https://floydrichmond.com/omea2022>

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 - Starting in March
 - Technology in the Music Classroom
 - Research



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- TMEA Article – Keep Making Music
- ATMI Presentation - <https://youtu.be/Ga3hwX5SM6c>
- NYSSMA Research Poster

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<p>Virtual Ensembles: A Case Study with Feedback and Reflections</p> <p>Dr. C. Floyd Richmond</p> <p>NYSSMA December 4, 2021</p>	<p>The following steps were identified as critical to the process:</p> <ol style="list-style-type: none">(1) select repertoire,(2) create scratch track,(3) distribute music, scratch track and instructions(4) practice, perform, record, and upload audio and video,(5) performs quality check and addresses issues,(6) load audio tracks, align, mixer and master tracks, (7) load photos or videos into a professional-level video-editing application and create visual elements, using the mixed audio as the soundtrack,(8) upload videos to a learning management system or to a file sharing application.
<p>This research was carried out through the creation of six virtual ensemble projects and included input from participants and reflections by the researcher to refine the process and improve the quality. A video report was created and is available here: https://youtu.be/Ga3hwX5SM6c. In the first minute and thirty seconds, the listener will hear excerpts from five virtual ensembles including <i>William Tell Overture</i> by Rossini, <i>Canzon IV a4 CH189</i> by Gabrieli, <i>Plaisir D'Amour</i> by Martini, <i>O Sacred Head Now Wounded</i> by Bach, and the traditional tune, <i>We Wish You a Merry Christmas</i> as arranged by the researcher.</p>	<p>The author concluded with the following observations: Virtual ensembles offer many of the same benefits of in-person ensembles. In both, students learn to listen to one another, to play together, to phrase notes, to match styles and articulations, to execute dynamics, to balance and blend. Whether virtual ensembles are used to provide experiences during a pandemic, or to provide enhancements in other times, they are approachable by students and faculty and are here to stay.</p>
	
<p>Fine Arts Department, Tarleton State University 1333 W Washington St, Stephenville, TX 76401 https://www.tarleton.edu/finearts/music/</p>	
<p>B.M. Music Education, B.M. Performance B.A. General Studies, B.A. Music Business, B.A. Jazz Studies, B. A. Musical Theater M.M. Music Education - 100% Distance, 100% Flexible Schedule</p>	



EXAMPLES

- [Plasir D' Amour \(iMovie\)](#)
- [Excerpts \(iMovie\)](#)
 - [William Tell](#)
 - [Donna Nobis](#)
 - [Pasier D' Amour](#)
 - [O Sacred Head](#)
 - [Canzon](#)
 - [We Wish You a Merry Christmas](#)



PROCESSES

- Manual process
 - Complex
 - Greatest quality
 - Greatest flexibility
- Dedicated App
 - Simpler
 - Excellent quality
 - Limited editing and flexibility
- Hire assistance – local recording studio, local music business college,



STEPS

- Select repertoire
- Distribute music
- Create “scratch” track
- Students practice and record.
- Students upload their audio and video recordings.
- Teacher does a quality check and addresses issues.
- Teacher loads audio into a modern DAW and aligns, mixes and “masters” the tracks.
- Teacher loads photos or videos into a professional-level video editing program and creates the visual elements of the program, using the mixed audio as the soundtrack.
- Teacher uploads the video into Facebook, YouTube, or other social media.



SELECT REPERTOIRE

Because the destination for many pieces is YouTube or Facebook, teachers will have to conform to their guidelines, especially regarding copyright and the video recording of minors. It eliminates a lot of issues if every sound recorded or used in the video is created by your ensemble. It's also a good idea to have parents of students who will be participating in the ensemble sign a permission slip saying their photos and videos may be used.



DISTRIBUTE MUSIC

Distribute music to students and ask them to practice. Electronic downloads through the school's learning management system provide the ideal convenience. Here is a demo pdf with music. Notation programs make it easy to create and distribute such materials, and this project (Dona Nobis), is an excellent project for a practice run.

Dona Nobis Pacem

Traditional Round

mf Do - na no - bis pa - cem, pa - cem

5 Do - na_ no - bis pa - cem

9 *p* Do - na no - bis pa - cem

13 Do - na no - bis pa - cem

17 Do - na no - bis_ pa - cem

21 Do - na no - bis pa - cem



CREATE SCRATCH TRACK

Create scratch tracks, preferably with a count-off in tempo for students to use in practice and recording. The quality of the scratch track is essential. It will define dynamics, expression, and style for the entire composition. Here is a demo scratch track.



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STUDENTS PRACTICE AND RECORD

Once students have practiced and mastered their parts, they record themselves using the best technology they have, but definitely in a quiet environment, and while listening to the scratch track in headphones. They must use headphones while recording, so only their part is recorded. Students can make reasonably good recordings with their iPhones, iPads and Androids using their camera app. This permits them to capture audio and video in one pass, although recording audio separately will generally allow better quality. Hand-held audio recorders like the Zoom H1N, or USB microphones such as the AT2020 which can be used with Audacity (free) on a computer are recommended for better audio, if available. Students should match the style and dynamics of the scratch track while recording. Here's a link to a video on how to record audio with a phone, while also listening to the scratch track and looking at the music. Although the video shows how to do all of these on the phone, students will find it more convenient to print the music instead.



STUDENTS UPLOAD

- Have students upload their recordings to a shared space. Assuming all students are in the same class, a file-upload assignment in their Learning Management System would be effective. If students are not in the same class, then other services such as DropBox, Google Drive, One Drive, or iCloud could be used. With those services, there are two approaches (1) Students upload to their shared drives, set permissions, and share with the teacher, (2) The teacher creates a shared drive and give students upload permissions. The advantage of the teacher providing a place for students to upload is that all files are collected in one place. The process for creating shared folders is usually as simple as navigating to the site, logging in, creating a new folder, and setting the sharing permissions on it. Both file-drop services and learning management systems may be used by students from a phone Camera app by tapping the share button from the video (looks like a box with an arrow pointing out of it). On computers, the students would usually upload to the services from a browser window.



QUALITY CHECK

- The teacher (or producer) downloads and does a quality check of the student's performances. Unusable tracks are discarded or rerecorded. Some people doing virtual ensembles have students submit two recordings, and choose between the best of the two (or mix and match). First players may be asked to do a recording of a second or third part, if needed.
- We should, in the quality control process, identify and label the best of each parts submitted. Band scores often have up to 34 independent parts (2 flutes, 2 oboes, 3 clarinets, 1 alto, 1 bass, 2 alto saxes, 1 tenor, 1 bari, 2 bassoons, 3-5 trumpets, 4 horns, 3 trombones, 1 euphonium, 1 tuba, and 5 percussion parts), and performances will be received on many levels. The best performances should receive the greatest emphasis.



ALIGN AND MIX TRACKS

- Next student files are loaded into a modern DAW (such as Logic or Pro Tools) for alignment and mixing. Everything is combined into a stereo performance. Many modern DAWs can load 60 or 120 tracks, but few can mix that many tracks with effects. Mixing in subgroups may be necessary. The best tracks will be prioritized, but sections of instruments or vocalists should sound like sections, and not like a single performer. For large ensembles few effects can be applied to each track (apply to the mix instead), therefore good source materials are essential). Pan the instruments to place them in the same area where they'd be seated, then mix for balance in good quality headphones or monitors. There is a strong temptation to correct issues with each track (pitch, rhythm, expression), and that may be necessary at times, but that is more practical with small ensembles. At this stage, the importance of having students submit quality performances is clear.



CREATE VISUALS

The video production will be a separate pass, but the mixed audio track should be the soundtrack for the video. If not done previously, students upload their photos or videos, and those would be combined using software such as Adobe Premier or Final Cut Pro. If you do not have these programs, you may wish to ask for help from a friend who does. iMovie cannot easily be used to create panels of hundreds of pictures for large ensembles. The easiest workaround is to have it show the photo or video of one or two performers at a time. The pictures will be bigger and although possibly shown more briefly, students would be better able to see themselves. If iMovie is your only video editing option, you may want to explore the Acapella app, or ask for help from a friend who has Premier or Final Cut Pro.



DISTRIBUTE

- Once finished, upload to YouTube or Facebook. Both of these services check for copyrighted materials, so public domain pieces such as Sousa marches, and pieces by Holst and similar composers work well. Much public domain repertoire is available at no cost from IMSLP. This might also be a good opportunity to feature original works by students, faculty, and composers known to them. It may be a good time to commission new works, specifically for these performances.



DEDICATED APPS

- [Watch FR Acapella Video](#)



REVIEW STEPS

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