

Managing COVID-19 Protocols in Administering Percussion Performance Curriculum

Percussive Arts Society COVID-19 Task Force

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INTRODUCTION

Managing COVID-19 Protocols in Administering Performance Curriculum

The Percussive Arts Society COVID-19 Task Force

The Percussive Arts Society COVID-19 Task Force was assembled to address the implementation of safety protocols with the goal of creating a set of guidelines, best practices, and recommendations specific to the percussion field.

The objective of this document is not to determine whether teachers and students should return to in-person learning and teaching, but to assist with those choosing to attempt face-to-face environments. There is currently very little information or guidance specific to the percussive arts. It is our goal that this document serves as a resource for administrators, educators, and students to help direct decision making for the safety and best practices of all involved.

The following guidelines address in-person or face-to-face learning and music making environments. This document does not attempt to address virtual or asynchronous modes of instruction.

While many woodwind, brass, and vocal instruments produce aerosols when performed, we are fortunate that instruments in the percussion family are void of such particle dispersion. Regardless, there are safety protocols that can be followed to help prevent the spread of infectious disease. The recommendations that are included within these pages are to be considered best practices for situations involving percussion instruments and performers. Also included in this document are curricular considerations and repertoire recommendations to aid with effective teaching, learning, and music making during this challenging and unique period. Please be sure to follow the Center for Disease Control (CDC), local governance, and institutional guidelines.

As we move forward to returning to practice rooms, rehearsal spaces, and performance halls, this is an opportunity for us to reexamine our future and to consider safety and curricular enhancements to the way we learn, teach and perform behind percussion instruments. The unique nature of our field will allow us to move forward in a powerful way continuing to educate our students with practicality and purpose.

SAFETY CONSIDERATIONS

PREVENTION

To ensure the safety of everyone involved in classroom, rehearsal, and lesson settings, students and teachers should closely follow guidelines outlined by the CDC, local governance, and the administration at your institution. One recommendation is to display signage in your facility to help educate and remind personnel how to avoid and prevent the spread of COVID-19. This can include reminders such as washing your hands often, avoiding touching of the face, wearing a protective mask when in a public space, disinfecting touched items, maintaining physical distance, and to stay home when feeling sick. Additional protocols, such as temperature checks upon entering a facility, may also be recommended by your institution.

There are best practices that are specific to the percussion field that can also be followed to help prevent community spread.

PERSONAL PROTECTION EQUIPMENT (PPE)

Percussionists can comfortably wear a face mask while practicing, rehearsing, or performing behind our instruments. Research indicates that wearing a face mask is an effective way to help prevent the spread of aerosols created while breathing, speaking, laughing, coughing, or sneezing. It is recommended that face masks should be worn while in a shared practice room, rehearsal space, or teaching studio.

Because of its proven effectiveness, it is recommended that your institution purchase and provide reusable face coverings for students, faculty, and staff. Additionally, disposable masks should be readily available for guests that may be visiting your facility.

SPACE AND PHYSICAL ENVIRONMENTS

Given the sonic nature and size of percussion instruments, it is necessary that space accommodations meet the unique needs of percussion equipment. This is especially true during a pandemic like we are experiencing at the present time.

Distancing Protocols

The general recommendation as published in a study by the University of Freiburg is that individuals should be positioned at a minimum of 6 to 7.5 feet from one another. This protocol relates to the distance between individuals regardless of any instruments within individual setups.

ROOM SIZE

Room size will be the determining factor in the number of students one can safely rehearse in a given space. Institutions will vary in their guidelines in terms of rehearsal length and any mandatory time cushions needed to adhere to specific protocols. For example, some schools are enforcing a 30 to 45-minute period between practice sessions and rehearsals. In order to uphold distancing recommendations, large rooms such as band halls, ballrooms, and stages can be utilized as alternative rehearsal spaces for percussion ensembles and large ensembles.

To estimate room capacity with social distancing guidelines in place, use the following formula as a start.

Example #1: with 6 feet apart = 36 sq ft; multiplied by 50 students = 1,800 sq ft space required

Example #2: with 9 feet apart = 81 sq ft; multiplied by 50 students = 4,050 sq ft space required

For our purposes, we could reference 4 students at 6ft distance X 36 = 144 square ft required.

These examples assume a relative fixed position between players and will vary depending on the amount of movement needed within an individual set up.

Other methods of calculation could allow for a few more students within these spaces, depending on whether a square or circle radius is used and whether the centerline of a person to the centerline of the next person is calculated as 3 feet + 3 feet = 6 feet.

VENTILATION

It is important to be aware of the air cycle and ventilation quality in your building and rehearsal spaces (check with your administration or physical plant department for details). If you determine that your building or space does not have an adequate ventilation system, advocate for space that will help keep everyone safe. Opening doors and windows can help to “shock ventilate” an internal system. This will help improve the air quality and prevent further spread.

INSTRUMENTS AND EQUIPMENT

Access to instruments and percussion equipment is essential to collegiate or public school percussion curriculum. Due to the quantity, size, and expense, most percussion instruments are owned and maintained by schools, studios, and other institutions.

INSTITUTIONAL ITEMS

Instruments and equipment owned by a school or studio are often shared between many students and in multiple ensemble scenarios over the course of a day. Percussion sections and ensembles are often sharing and, in some cases, making physical contact with the same instruments. Instruments may also be shared in different practice sessions or rehearsal periods during a normal daily use cycle.

In a rehearsal setting, it is recommended that students not share instruments or implements within a single piece. It is also recommended that students not share instruments between pieces if possible. Creating setup pods for each player within a rehearsal will aid with social distancing as well as prevent items from being shared to prevent the potential for cross contamination.

DISINFECTING AND CLEANING

It is known that frequent cleaning and disinfecting of surfaces that receive human presence and contact can help to prevent transmission. Products such as Clorox and Lysol disinfectant wipes can safely be used to clean synthetic, hard rubber, or metal. This can include commonly touched items like hardware, metal rims, and keyboard frames. Chemical products should be avoided on natural surfaces such as rosewood and calfskin heads.

While gloves may seem like a good preventative measure, they can potentially carry aerosol droplets and be difficult to properly clean. Disposable gloves can also create a lot of waste. Proper hand washing or use of hand sanitizer before and after a practice session, lessons, or rehearsals, is perhaps a better solution.

The National Association of Music Merchants (NAMM) has published an article on COVID-19 instrument cleaning and includes this list of possible disinfectants:¹

- Sterisol Germicide Solution can be safely used on plastics, hard rubbers, and metals.
- Isopropyl alcohol wipes are safe for most materials.
- A solution made with 50% water and 50% white vinegar or 50% water and 50% hydrogen peroxide can be safely used on plastics, hard rubbers, and metals.

1 <https://www.namm.org/covid-19/articles/covid-19-and-instrument-cleaning>

Yamaha has also published a Product Disinfection Guide for drums and percussion² Natural materials, such as rosewood and calfskin, cannot be exposed to harsh chemicals. The use of UVC lighting to disinfect rosewood and padauk is the only safe and practical method at this time. Below are some guidelines and recommendations for the use of UVC lighting in disinfecting percussion instruments.

UVC Disinfection Suggestions

UVC is one of three types of ultraviolet light, a form of electromagnetic radiation. Unlike UVA and UVB light, which produce longer waves and are able to reach the earth's surface (most notably UVA), UVC is a short-wave light completely absorbed by the ozone with wavelengths ranging from 100-280 nm. UVC has germicidal properties at a range of 200-280 nm,³ and has been commonly used for water treatment, in addition to air and surface sanitation in places such as medical facilities since the 1980s. UVC radiation kills cells by breaking bonds within their DNA,⁴ rendering viruses up to 99.9% inactive.⁵ A safer form of UVC is Far-UVC light, which emits light in the 207 to 222 nm wavelength range. Because it has a shorter wavelength and higher photon energy, it penetrates harmful microorganisms without penetrating human skin.⁶

Commercially available devices such as UVC lamps (including LED), hand-held wands, and air purification systems are designed in a manner that allow them to be used safely if precautions are taken, and function at a range of about 254 nm. Devices such as portable hand-held wands may prove effective for the sanitation of percussion instruments that cannot be cleaned with liquid-based substances, i.e. rosewood marimba bars or membranophones with natural calfskin heads. Germicidal UVC lamps may be effective for small to medium-sized spaces such as practice rooms. Many UVC Lamp models include a remote control and timer so that they may be turned on and used without occupancy of the room.

The proper use of UVC light devices is essential for user safety. UVC light is only meant to sanitize objects and spaces and not human skin; some research suggests that there can be negative effects on the skin and eyes from prolonged direct exposure.⁷ The International Ultraviolet Association states:

2 <https://usa.yamaha.com/support/safety/index.html>

3 International Ultraviolet Association (IUVA) IUVA Fact Sheet on UV Disinfection for COVID-19
<https://iuva.org/IUVA-Fact-Sheet-on-UV-Disinfection-for-COVID-19>

4 <https://www.scientificamerican.com/article/how-does-ultraviolet-light/>

5 <https://www.americanultraviolet.com/uv-germicidal-solutions/faq-germicidal.cfm#caution>

6 Far-UVC light: A new tool to control the spread of airborne-mediated microbial diseases
<https://www.nature.com/articles/s41598-018-21058-w>

7 Germicidal Efficacy and Mammalian Skin Safety of 222-nm UV Light Manuela Buonanno; Brian Ponnaiya; David Welch; Milda Stanislaukas; Gerhard Randers-Pehrson; Lubomir Smilenov; Franklin D. Lowy; David M. Owens; David J. Brenner
<https://meridian.allenpress.com/radiation-research/article/187/4/493/192663/Germicidal-Efficacy-and-Mammalian-Skin-Safety-of>

“Like any disinfection system, UVC devices must be used properly to be safe. They all produce varying amounts of UVC light in wavelengths of 200nm-280nm...general machine-human safety needs to be considered with all disinfection devices, and these considerations should be addressed in the operations manual, in the user training, and appropriate safety compliance”.⁸

One important thing to note is that some UVC-lamps and air purification devices are marketed to produce ozone as an additional method of sanitizing. While this is said to be slightly more effective, it requires aeration of closed spaces before occupancy and therefore is not recommended for spaces that need to be occupied immediately upon use.

Germicidal UVC light technology has been used for over 40 years, and there continues to be emerging research on this topic as it applies to the current circumstances of viral transmission. There is encouraging research specifically on Far-UVC technology emerging every day, which may result in more commercially available devices of this type becoming readily available. It is encouraged that you visit the resources provided as a starting point for more investigation on viable UVC sanitation options for specific percussion area needs. It is also advised that any devices used are lab-tested and approved by reputable sources.

Considerations for use:

- Germicidal effectiveness of UVC Lamps in a room are dependent on the size of device, room, and duration of exposure. Conventional lamps function at approximately 254 nm of ultraviolet light and larger devices cover larger square footage.
- Proper use of devices is essential for safety; following device instructions and avoiding direct contact with skin and eyes is necessary.
- UVC lamps with timer settings and a remote-control are preferable because they can be activated without room occupancy and will automatically shut off after the timer is complete.
- UVC lamps with a motion detector for shut-off provide an additional level of user safety.
- UVC lamps may be a viable option for overnight sterilization of practice rooms when there is no occupancy.
- UVC wands may be a viable option for things like marimba bars, tambourines, hand-drums, and items that are otherwise difficult to clean.
- There is no known research on the visible effects of extensive UVC light use on instruments (such as faded color of objects or other damage). PAS assumes no claims in this regard; user discretion is advised.

⁸ International Ultraviolet Association (IUVA) IUVA Fact Sheet on UV Disinfection for COVID-19
<https://iuva.org/IUVA-Fact-Sheet-on-UV-Disinfection-for-COVID-19>

Cleaning Habits and Responsibilities

Disinfecting and cleaning should occur after each use of a room, instrument, or piece of equipment. The regularity of this process will help to minimize the transmission of any droplets. There are many approaches that may work to properly sanitize and clean. Individuals should always be responsible for their own items but it might also make sense to assign a single person to complete the clearing process within a room after each rehearsal.

As with face coverings, your institution should support safety measures and provide the necessary supplies to properly clean and disinfect instruments and public spaces within your facility.

SPECIFIC INSTRUMENT GUIDELINES

Not all percussion instruments utilize personal implements when performed on. Extra precaution will need to be taken with instruments where the performance practice requires the player to touch an object or surface with their hands or other part of their body. A fomite describes an inanimate object or surface that could act as a vehicle for transmitting an infectious organism like the coronavirus.⁹ Addressing surfaces and objects that will receive regular physical contact will be necessary to help prevent community spread.

Keyboard Percussion Instruments

The disinfecting of keyboard percussion instruments will be the most challenging within our instrument family. While vibraphones, glockenspiels, chimes, and crotales are all instruments that can be disinfected with a household product, rosewood instruments, such as marimbas and xylophones, are easily damaged if not maintained properly. The use of UVC lighting to disinfect rosewood and padauk is the only safe and practical method at this time. *As additional studies are done on other methods of disinfecting rosewood and padauk without harming the instrument, we will update accordingly.*

Hand Drums and Handheld Accessories

If you are considering programming music that requires hand drums or handheld accessories (such as tambourine, triangle, and a cowbell), it is recommended that you check out the instrument to a student for the duration of the rehearsal and performance period. This will ensure that only one student is making regular contact with the instrument.

⁹ <https://health.usnews.com/conditions/articles/coronavirus-glossary>

Timpani

When a performer touches the membrane of a timpano to mute the sound, there is potential for droplet transmission from skin to surface. If your instruments are outfitted with synthetic heads, it is recommended that the muting area be cleaned with a proper disinfectant wipe. It is also recommended that timpanists wash their hands immediately before and after the rehearsal or performance period.

Implements

Implements that are commonly provided by the institution, such as chime, bass drum, and tam-tam mallets, should not be shared during a rehearsal. If the school or program is providing these items, it is recommended that there be a “used” and a “clean” box available. “Used” items refer to those that have been touched during a rehearsal. Once the rehearsal concludes, the used items are placed in this box to be properly sanitized. Once this is accomplished, they can be returned to the “clean” box, ready for the next rehearsal.

Instrument Covers

Instrument covers made of cloth or other fibrous material will receive regular physical contact in order to be removed and replaced. You may want to consider forgoing the use of instrument covers during the pandemic to simplify and economize the number of disinfecting assignments necessary.

PERSONAL IMPLEMENTS AND ACCESSORIES

For elementary and intermediate level percussion students, it is recommended that each percussion student have their own mallets and sticks for rehearsal, practice, and concerts. Do not share these with other students. Hands should be washed and/or sanitized with soap or a disinfectant before and after each session. Personal mallets should be sanitized before they are returned to stick bags. Sanitize the outside of your stick bag on a regular basis.

Follow the guidelines your director outlines for disinfecting mallets used for larger instruments (bass drum, tam-tam, and chimes) as well as all the percussion equipment you come into contact with.

This statement/recommendation is based on current scientific knowledge and the expertise of musicians and instrument experts to avoid the risks of infection of COVID-19.

Below is a recommended education pack for elementary and intermediate playing levels:

- 1 stick or mallet bag (cordura or synthetic)
- 1 pair of medium yarn mallets (marimba, suspended cymbals, tom toms)
- 1 pair of hard rubber mallets (xylophone, bells, wood blocks)
- 1 pair of concert snare drum sticks
- 1 pair of medium or general timpani mallets

Optional for drum set use:

- 1 pair of wire brushes
- 1 pair of drum set sticks

REHEARSAL PROTOCOL

The following recommendations are for any rehearsal or performance setting where a group of percussionists will be participating, such as Percussion Ensembles, Wind Ensembles, Bands, Orchestras, and New Music Chamber Groups.

Large ensemble and chamber ensemble settings require special needs for percussionists to be able to accomplish their roles in a safe manner. This includes the setup process, the rehearsal period itself, and teardown once the rehearsal concludes.

Large ensemble settings, such as wind bands, orchestras, and jazz bands, will have their own protocols in place to keep participants safe. In addition to the considerations given to wind and string players, there are specific recommendations that should be made for percussionists.

REHEARSAL DURATION

Decisions about rehearsal length are dependent upon the ventilation quality in the rehearsal space as mentioned earlier in this document. The duration of time spent together in indoor environments has an effect on the likelihood of virus transmission. It is recommended by several sources that rehearsal duration will directly relate to ventilation efficiency and the number of individuals in the given rehearsal. The exact length for a “safe rehearsal” has not been agreed upon scientifically, however, it is suggested that rehearsals go no longer than 60-minutes and in many cases stay within the confines of a 45-minute block.

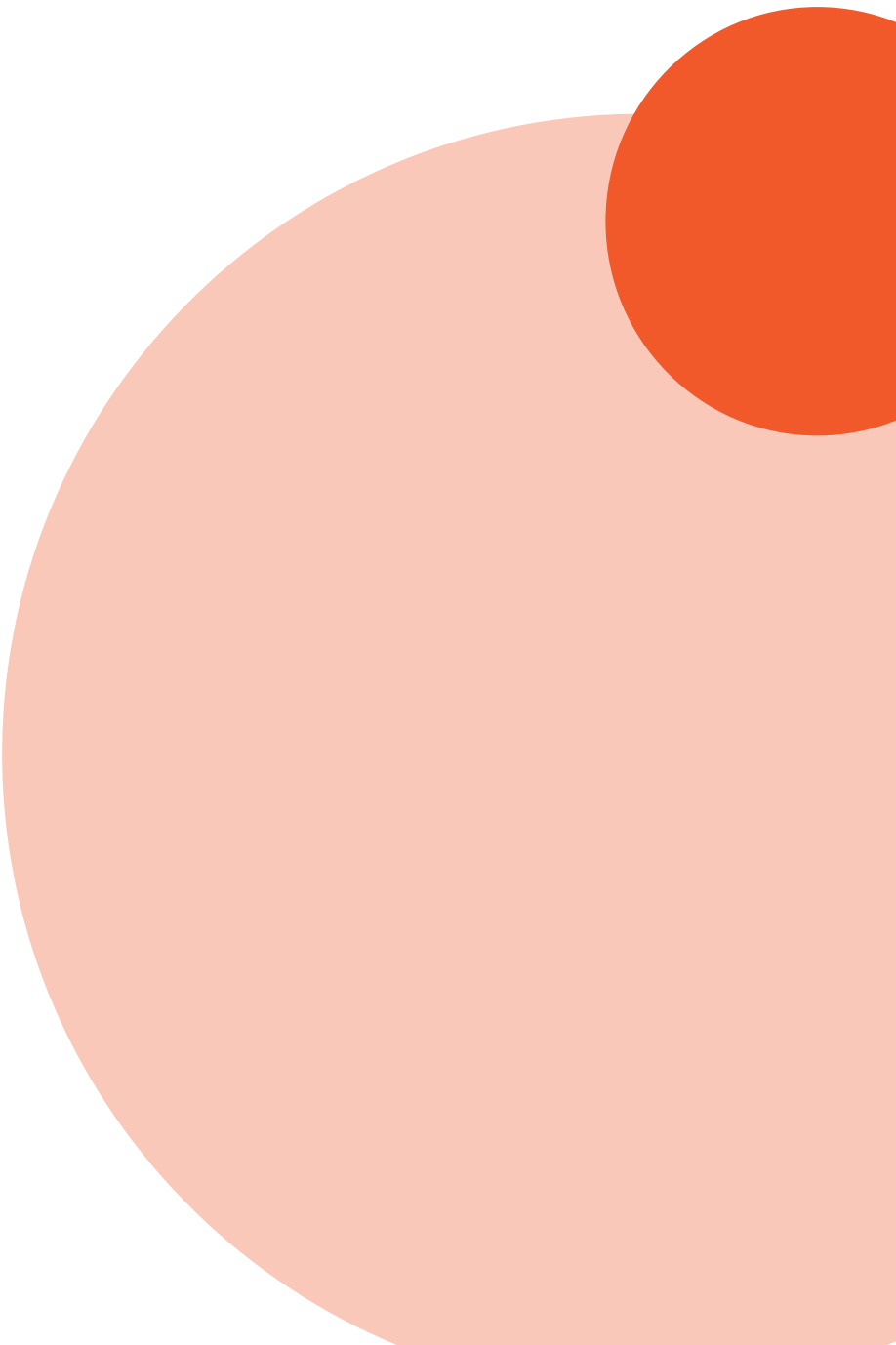
As mentioned earlier, time cushions between practice sessions and rehearsals is recommended as an additional safety protocol. This would also allow necessary time for percussionists prior to and following any rehearsal to disinfect hardware, accessories, and mallets.

We recommend that directors/conductors build in additional time allowing percussionists for both instrument transportation and disinfecting. This may have to be built into the existing class time. The larger the percussion section, the more time that will be needed for transportation and cleaning. PAS recommends programming works for small percussion sections to minimize time spent sharing, moving, and cleaning instruments.

REHEARSAL LOGISTICS

To help the flow of traffic while properly social distancing, it is suggested that there are one-way entrances and exits in and out of a designated rehearsal space.

In large ensemble settings, percussionists should be given priority with setup in order to have time and space prior to other instrumentalists arriving at the rehearsal.



CURRICULAR CONSIDERATIONS

PROGRAMMING AND REPERTOIRE

The repertoire list included in Appendix 1 represents a survey of works that can be rehearsed/performed while adhering to social distancing protocols. Holding to the required 6 to 7.5 feet distancing protocol, room size will be the determining factor in the number of players possible in a given situation. The measurements of rehearsal and performance spaces should be taken to accurately determine safe group sizes. Be sure to consider instruments, chairs, storage cabinets and sound equipment when measuring for the true square footage available for rehearsing.

For example: Using the formula of 6ft distance between personnel, a percussion quartet would need a room able to accommodate 144 square ft for the ensemble to safely rehearse. This takes into account 6ft bubbles or 36 sq ft for each student.

Given the space limitations imposed as a result of the distance protocols, smaller ensembles will become necessary, opening up the opportunity to explore the chamber repertoire in percussion.

The repertoire listed in Appendix 1 is divided into 4 sections; trios, quartets, quintets and variable instrument compositions. It is not separated by instrument groups but does give an abbreviation of the instrumentation required for each. "Variable Compositions" allow for creative instrumentation and group sizes that can accommodate each program's unique needs and challenges.

All of these works can be performed with 6 to 7.5 feet between performers wearing masks to satisfy the social distancing requirements posted by the CDC. It is also suggested that part assignments avoid the sharing of instruments as well as the rotation of part assignments in multi movement works.

*Some schools are also requiring 30 to 45 minute time cushions between rehearsals and practice sessions to allow for disinfecting to take place prior to a new group of students entering the space.

CREATIVE MUSIC MAKING

In these challenging times, many educators have been rethinking the traditional repertoire for the percussion ensemble. Many of us are now working under guidelines that respect social distancing and sanitization of percussion gear. With this opportunity to rethink our ensembles, many educators are embracing

chamber-sized repertoire written for smaller forces.

Chamber percussion performance is a specialized field and requires skill sets not normally used for the performance of symphonic or solo music. In this idiom, percussionists develop a close intimacy of shared musical experience; they move into an area of awareness that is not often experienced when a conductor is leading them.

In addition to selecting chamber percussion repertoire, educators may want to consider adding new opportunities for free-style improvisation to their curriculum. In free improvisation sessions, students learn to make on-the-spot musical decisions and perform spontaneous gestures, which turns the music into a conversation between the performers.

In November of 2014, The College Music Society produced *Transforming Music Study from its Foundations: A Manifesto for Progressive Change in the Undergraduate Preparation of Music Majors*, a report from their Task Force on the Undergraduate Music Major. This manifesto proposes that music schools and departments implement course and curricular designs, that are informed by the needs of the contemporary student, to develop their skills as an improviser-composer-performer.

Consider expanding the learning outcomes of your chamber percussion groups by adding a component of Free improvisation to their rehearsal block. The students can use the same instruments they've already set up for their traditional rehearsal, and spend a few minutes or more improvising.

William Cahn in his book "Creative Music Making" states there are only two rules to beginning:¹⁰

Rule #1: Performers may/may not play anything. There are no mistakes

Rule #2: Performers should listen as deeply as possible to themselves and others.

Cahn goes on to suggest a specific "...process in which musicians can expand their musical expression through the creation of spontaneous, free-form music without the constraints of thinking about technique or following printed music."

Developing this kind of skill set is essential to training the 21st century musician. Below are a few resources to get you started if you add this component to your chamber percussion rehearsals.

CONCLUSION

In summary, all of the above guidelines are recommendations based on our collective research as a task force and are subject to change as we move forward during this challenging period coping with the ramifications of the COVID-19 pandemic. Please refer to the following appendix for additional references and links to other studies and suggested safety protocols for your students.

¹⁰ Cahn, William (2005), *Creative Music Making*, New York, Routledge.

APPENDIX 1: Repertoire Recommendations

The following is a list of suggested intermediate and advanced repertoire ideal for COVID-19 Protocol with in-person instruction. This list is focused on intermediate and advanced students. For a more robust index of ensemble repertoire pertaining to middle and high school level please refer to the Texas University Interscholastic League Prescribed Music List: <https://www.uiltexas.org/pml/>

Trio:

John Luther Adams, always very soft (3 multi perc)
Timothy Adams, Armed Guards Capture Rare Rhino (3 cajons)
Fredrik Andersson, imagine there was nothing (2V, 1M)
Elizabeth A. Baker, Shapes for Percussion Trio (3 multi perc)
Andrew Beall, Rancho Jubilee (3 cajons)
Warren Benson, Trio for Percussion
Michael Byron, Morning Glory
John Cage, Three2 (trio with open instrumentation)
James Campbell, Terra-cotta Warriors (add cymbals for distancing protocol)
Pius Cheung, Nian3 (BD Trio)
Matt Chilmaid, Tri-Takt (3 small multi perc)
Christopher Deane, Topography of Dreaming (2M, 1V)
Thierry DeMay, Musique de Table
Josh Gottry, Wood, Metal, Skin (3 perc flexible Instrumentation)
Erin Graham, shadows, shifting sky (3V)
Dave Hall, The Persistence of Memory (3 multi perc)
Dave Molk, Dreams (1V, 2 multi perc)
Eugene Novotney, Intentions (hand held perc)
*Brian Nozny, The Atmos Clock (3M)
Alexandre Lunsqui, Shi
Rudiger Pawassar, Sculpture in Wood (3M and 4M versions)
Russell Peck, Lift Off (3 multi perc)
N. Scott Robinson, Orisha Offering (conga trio)
Adam Silverman - Cruel Waters (3M)
Gerald Strang, Percussion Music
Toru Takemitsu, Rain Tree (1V/crot and 2M)
Ivan Trevino, Open Your Eyes (3M)
Alejandro Viñao, Relative Riffs (2M, 1V, Xly, G, Chimes and hand drums)
Kevin Volans, Chakra (3 multi drum set ups)
Iannis Xenakis - Okho (3 djembes or 3 multi perc)

Quartet:

John Luther Adams, Strange and Sacred
John Luther Adams, The Drums of Winter
Andy Akiho, Pillar IV (1V 1G 2 multi perc)
William Albright, Take That (4 multi perc)
Jan Bach, Woodwork (3M, X, with some perc)
Brian Blume, Scenes from the Woods (4M)
Michael Burritt, Dex (4 Multi Perc all drums)
Michael Burritt, Marimba Quartet (4M)
Michael Burritt, 180 (4M with click)
Chris Butler, Push (2V, 2M)
John Cage, Living Room Music
John Cage, Third Construction (4 multi perc)
John Cage & Lou Harrison, Double Music (4 multi perc)
Yiu-Kwong Chung, Festive Drumming
*Elliot Cole, Postludes (4V)
David Crowell, Music for Percussion Quartet (4 keyboards, some perc.)
Christopher Deane, Marimba Quartet 2 - Sensing the Coriolis (4M)
Christopher Deane, Vespertine Formations (4M)
Thom Hasenpflug, Bicksa (4 multi perc)
Dave Hollinden, The Whole Toy Laid Down (1V, 1M, Multi and Timp)
Aurel Hollo, Children's Corner by Debussy (2V, 2M)
Aurel Hollo, Jose beFORe John 3 (marimba quartet)
Aurel Hollo, trans. Le Tombeau de Couperin by Ravel (2V, 1G 1M)
*Devonte Hynes, Perfectly Voiceless (2M, 2V)
David Lang, So Called Laws of Nature (4 Perc)
Paul Lansky, Patterns (2V, 2M)
Paul Lansky, Springs (4 multi perc)
Paul Lansky, Threads (4 multi perc with 2V)
Michael Laurello, Spine (3 Multi Perc with pno)
Daniel Levitan, Conservatory Garden (4 multi perc)
Daniel Levitan, Marimba Quartet
Dave Maric, Nascent Forms (2V, 2M)
*Istvan Marta, A Doll's House Story (2M, 1V, 1Xyl, CH, Timp, multi perc each)
*Peter Martin, Bend (4M)
Marc Mellits, Gravity (2M 2V) *also quintet version
Minoru Miki, Marimba Spiritual (solo M, 3 multi perc)
Joe W. Moore III, Black Minerals (4 multi perc)
Joe W. Moore III, Bon Temps (4 multi perc)
Joe W. Moore III, Spiritual Gifts (M, V, Xyl, G, perc)
Nico Muhly, Ta and Clap (4 multi perc and 1M)

Eugene Novotney, Scratch (scrapers)
 Gemma Peacocke - Death Wish (4M)
 Francisco Perez, Selva Luminosa (2V, 2M)
 Francisco Perez, Volcán de Fuego
 Caleb Pickering, Powder Keg (2V, 2M)
 Maurice Ravel, arr. Dave Gerhart, Quartet in F Major, mvt. 2 (4M)
 Steve Reich, Mallet Quartet (2V, 2M)
 Christopher Rouse, Ku Ka Ilimoku (3 multi perc, timp)
 Caroline Shaw, Taxidermy (2M)
 David Skidmore, Torched and Wrecked (4M + electronics)
 Jeff Smith, Opening Remarks (4M)
 Toru Takemitsu, Seasons (4 multi perc)
 James Tenney, Three Pieces for Drum Quartet
 Augusta Read Thomas, Qi (4M)
 Ivan Trevino, Bloom (4M)
 Andrea Venet, Refrakt (4M)
 Alejandro Viñao, Stress and Flow (2M, Vibe, Chimes, Xyl and electronics)
 Kevin Volans, Abhaya (4 Perc)
 Kevin Volans, 4 Marimbas
 Vine Wallace, Pulse (4M)
 Nigel Westlake, Kalabash (4M)
 Nigel Westlake, Moving Air (drum quartet plus electronics)
 Nigel Westlake, Omphalo Centric Lecture (4M)
 *Amy Williams, Dream Landscape (4V, triangles)
 Julia Wolfe, Dark Full Ride (4 drum sets)
 *Ayanna Woods, Triple Point (2M, 1V multi perc)

Quintet:

John Luther Adams, ...and bells remembered...(2V, G, Crot, CH) in the round
 Bob Becker, Away Without Leave (4 SD, Multi, BD)
 Bob Becker, Mudra (solo drum with 2V and 2M, G, BD)
 Bob Becker, Unseen Child (1M, 2V, G, Sus Cyms)
 Michael Burritt, Home Trilogy (solo M - 4 perc, 2V, Crot, G)
 Nathan Daughtrey, Edge of the World (G, V, CH, 2M, optional perc)
 Nathan Daughtrey, Halcyon Days (solo M, 4 perc)
 Brett Dietz, Sharpened Stick (5 multi perc)
 Mark Ford, CABASA! (5 cabasas)
 Dave Hall, Tilted Spheres (5 multi perc)
 Nikolaus Huber, Clash Music (3-5 small Chinese cym players)
 Joe W. Moore III, Ojo (X, V, Perc)
 Brian Nozny, Bullet Hell (solo V, 4P)

John Psathas, Kyoto (2V 2M, 1 perc with drums)
Steve Reich, Music for Pieces of Wood
Christopher Rouse, Ogun Badagris (4 multi perc and timp)
Sven David Sandstrom, Drums (4 multi perc and timp)
Joseph Tompkins, Blue Burn (5 small multi with hand instruments)
Andrea Venet, Green Ranger (solo V, 4 multi perc w/ 1V, 1M)
Alejandro Viñao, Estudios de Frontera (3M, V, Xyl, Chimes Perc)
Ardean Watts, Mark V Marimba Toccata (5M)

Variable Instrumentation:

Louis Andriessen, Workers Union
Andy Akiho, Karakurenai
John Bergamo, Piru Bole (hand drums)
Johanna Beyer, IV
Anthony Braxton, Composition No. 108 (pulse tracks)
Anthony Braxton, Composition No. 115
Anthony Braxton, Composition No. 136
William Duckworth, Gymel
William Duckworth, A Whispering
Julius Eastman, Stay On It
Peter Garland, Apple Blossom (4 or more players that are socially distanced)
Mary Jane Leach, Lake Eden
Edwin London, Roll (glass, skin, metal, wood)
Jordan Nobles, Open Score Collection (<https://jordannobles.com/music/open/>)
Eugene Novotney, Cross (solo drum and ensemble of any size)
Terry Riley, In C
Terry Riley, Tread on the Trail
N. Scott Robinson, Interior Design (frame drum ens.)
N. Scott Robinson, Carnatic Variations (frame drum ens.)
Bill Ryan, Blurred
Yousif Sheronick, Middle Eastern Variations

Abbreviations:

SD - snare drum
BD - bass drum
Multi - multiple percussion setup
M - marimba
V - vibes
Xly - xylophone
G - Glockenspiel
Crot - crotales
CH - Chimes

**Indicates work that was originally intended to share instruments. It is recommended to supplement additional instruments for distancing protocols. Instrument numbers with additions indicated in parentheses.*

APPENDIX 2: Marching Percussion Considerations

Like indoor related activities, precaution should be taken with outdoor oriented ensembles such as marching band. The following recommendations were made regarding outdoor marching percussion activities:

- Research and follow all CDC, State and Local government guidelines regarding COVID-19.
- If the technology is available, test students for fever with a non-contact infrared thermometer.
- Facial coverings are recommended for educators and students.
- Restrooms should only be used one-at-a-time.
- Students should not share water, sunblock, food, or any other personal items.
- Hand Sanitizer and disinfecting wipes should be made available for faculty and students.
- Students should maintain a social distance of at least 7.5 feet (or “4 step intervals” in marching band vernacular).
- Students should each be assigned an instrument (snare drum, tenor drums, bass drums w/harness & stand) and should not share equipment.
- If your drumline is fielding a marching cymbal line, a pair of cymbals and a bag are assigned to each performer and not shared with other students.
- Students should be assigned implements (sticks, mallets, stick bags, etc) and should not share with other students.
- Keyboard percussion instruments are disinfected and moved outdoors by faculty / staff. 10 feet social distancing is recommended for keyboards.
- Keyboards that are NOT rosewood are all disinfected after each use and moved back into storage by faculty and staff.
- If marimba bars are made of rosewood please follow the UVC disinfecting suggestions found on page 7 of this document.
- Instruction should occur at the appropriate social distance and avoid any contact with students, sticks, or mallets, etc.
- Group size and duration of rehearsals should be limited. (ex. 10:1 student to teacher ratio - one hour rehearsal).
- Students should arrive no sooner than 15 min prior to rehearsals and should leave within 15 min of the conclusion of rehearsals.
- If multiple groups of students are to be scheduled (sectionals), allow for a 30 min buffer of time between those rehearsals.

For additional information, there is an excellent set of guidelines created by the Texas University Interscholastic League COVID-19 Summer Marching Band Practices and Rehearsals: https://www.uiltexas.org/files/policy/Marching-Band-PR-Covid_20.pdf

APPENDIX 3: Additional Resources

Below is a set of resources and links that were collected while putting this document together:

General Guidelines:

- CBDNA COVID-19 Response Committee Report: <https://www.cbdna.org/covid19/>
- University of Freiburg Risk Assessment of a Coronavirus Infection in the Field of Music: <https://www.mh-freiburg.de/en/university/covid-19-corona/risk-assessment>
- COVID19 Music Educator Resources: https://drive.google.com/drive/folders/1ZyS4BGduym_aN-jl0V_vt3g3uGVyXfsM2?usp=sharing
- COVID19 Musician Resources: https://drive.google.com/drive/folders/1PZ8RF3EytzUWGwfJN-pu4fsyXc4E_u2Yi?usp=sharing
- CBDNA Virtual Symposium Shared Folder: <https://drive.google.com/drive/folders/1An9I3auY8D6wf-sacoZa8BYyT4UC9Pa-D>
- UIL COVID-19 Summer Marching Band Practices and Rehearsals: https://www.uiltexas.org/files/policy/Marching-Band-PR-Covid_20.pdf

Instrument Disinfection:

- Yamaha Disinfection Safety Information: <https://usa.yamaha.com/support/safety/index.html>
- NAMM COVID-19 Instrument Cleaning: <https://www.namm.org/covid-19/articles/covid-19-and-instrument-cleaning>

UVC Sanitization:

- International Ultraviolet Association (IUVA) IUVA Fact Sheet on UV Disinfection for COVID-19 <https://iuva.org/IUVA-Fact-Sheet-on-UV-Disinfection-for-COVID-19>
- UVC Light Kills SARS-CoV-2, Triggering Novel Lighting Options for Public Spaces. Published: Jun 19,
- 2020 By Gail Dutton <https://www.biospace.com/article/uv-c-light-kills-sars-cov-2-triggering-novel-lighting-options-for-public-spaces/>
- Germicidal Efficacy and Mammalian Skin Safety of 222-nm UV Light Manuela Buonanno; Brian Ponnaiya; David Welch; Milda Stanislauskas; Gerhard Randers-Pehrson; Lubomir Smilenov; Franklin D. Lowy; David M. Owens; David J. Brenner <https://meridian.allenpress.com/radiation-research/article/187/4/493/192663/Germicidal-Efficacy-and-Mammalian-Skin-Safety-of>
- The History of Ultraviolet Germicidal Irradiation for Air Disinfection by Nicholas G. Reed <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2789813/>
- <http://www.uvresources.com/blog/the-ultraviolet-germicidal-irradiation-uv-c-wavelength/>
- Far-UVC light: A new tool to control the spread of airborne-mediated microbial diseases <https://www.nature.com/articles/s41598-018-21058-w>
- Far-UVC Light Could Safely Limit Spread of Flu, Other Airborne Viruses https://www.photonics.com/Articles/Far-UVC_Light_Could_Safely_Limit_Spread_of_Flu/a63116#:~:text=%E2%80%9C-

[Far%2DUVC%20light%20has%20a.%2C%E2%80%9D%20said%20professor%20David%20J.](#)

- The potential of far-ultraviolet light for the next pandemic. 19 May 2020 <https://physicsworld.com/a/the-potential-of-far-ultraviolet-light-for-the-next-pandemic/>
- Evaluation of an Ultraviolet C (UVC) Light-Emitting Device for Disinfection of High Touch Surfaces in Hospital Critical Areas <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6801766/>
- <https://www.klaran.com/>
- <https://www.researchsquare.com/article/rs-25728/v1>
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3292282/>
- <https://uvsolutionsmag.com/buyersguide/>

Curriculum:

- College Music Society Transforming Music Study from Its Foundations: A Manifesto for Progressive Change in the Undergraduate Preparation of Music Majors: <https://www.music.org/pdf/pubs/tfumm/TFUMM.pdf>

Repertoire Recommendations:

- Texas University Interscholastic League Prescribed Music List: <https://www.uiltexas.org/pml/>

Improvisation Resources:

- Bailey, D. (1993), *Improvisation - Its nature and practise in music*, New York: Da Capo.
- Cahn, William (2005), *Creative Music Making*, New York, Routledge.
- Hall, Tom (2009), *Free Improvisation: A Practical Guide*, Boston: Bee Boy Press.
- Higgins, Lee & Campbell, Patricia Shehan (2010), *Free To Be Musical: Group Improvisation in Music*, Published in partnership with MENC.